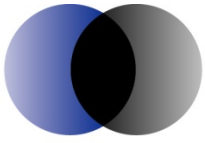
The 'Apartments for Life' Housing, Care & Support Concept for Older People

An assessment of economic and budgetary implications of The Benevolent Society's proposed model for some housing developments for older people in Australia

Prepared for The Benevolent Society

July 2009



ACIL Tasman

Economics Policy Strategy

Reliance and Disclaimer

The professional analysis and advice in this report has been prepared by ACIL Tasman for the exclusive use of the party or parties to whom it is addressed (the addressee) and for the purposes specified in it. This report is supplied in good faith and reflects the knowledge, expertise and experience of the consultants involved. The report must not be published, quoted or disseminated to any other party without ACIL Tasman's prior written consent. ACIL Tasman accepts no responsibility whatsoever for any loss occasioned by any person acting or refraining from action as a result of reliance on the report, other than the addressee.

In conducting the analysis in this report ACIL Tasman has endeavoured to use what it considers is the best information available at the date of publication, including information supplied by the addressee. Unless stated otherwise, ACIL Tasman does not warrant the accuracy of any forecast or prediction in the report. Although ACIL Tasman exercises reasonable care when making forecasts or predictions, factors in the process, such as future market behaviour, are inherently uncertain and cannot be forecast or predicted reliably.

ACIL Tasman shall not be liable in respect of any claim arising out of the failure of a client investment to perform to the advantage of the client or to the advantage of the client to the degree suggested or assumed in any advice or forecast given by ACIL Tasman.

ACIL Tasman Pty Ltd

ABN 68 102 652 148
Internet www.aciltasman.com.au

Melbourne (Head Office)
Level 6, 224-236 Queen Street
Melbourne VIC 3000

Telephone (+61 3) 9600 3144
Facsimile (+61 3) 9600 3155
Email melbourne@aciltasman.com.au

Brisbane
Level 15, 127 Creek Street
Brisbane QLD 4000
GPO Box 32
Brisbane QLD 4001

Telephone (+61 7) 3009 8700
Facsimile (+61 7) 3009 8799
Email brisbane@aciltasman.com.au

Canberra
Level 1, 33 Ainslie Place
Canberra City ACT 2600
GPO Box 1322
Canberra ACT 2601

Telephone (+61 2) 6103 8200
Facsimile (+61 2) 6103 8233
Email canberra@aciltasman.com.au

Darwin
Suite G1, Paspalis Centrepoint
48-50 Smith Street
Darwin NT 0800
GPO Box 908
Darwin NT 0801

Telephone (+61 8) 8943 0643
Facsimile (+61 8) 8941 0848
Email darwin@aciltasman.com.au

Perth
Centa Building C2, 118 Railway Street
West Perth WA 6005

Telephone (+61 8) 9449 9600
Facsimile (+61 8) 9322 3955
Email perth@aciltasman.com.au

Sydney
PO Box 1554
Double Bay NSW 1360

Telephone (+61 2) 9389 7842
Facsimile (+61 2) 8080 8142
Email sydney@aciltasman.com.au

For information on this report

Please contact:

David Campbell
Telephone (02) 9389 7842
Mobile 0419 584 824
Email d.campbell@aciltasman.com.au

Contents

Figures and tables

Overview

The Benevolent Society (TBS) is planning a major accommodation complex development in Bondi, in inner Sydney (the 'Ocean Street development') – directed at housing, care and support for older people. We have examined the proposal from the perspectives of its value as a 'stand alone' project and its value as a pointer to the potential for a number of such facilities contributing to a smarter response to ageing trends in Australia and trends in the expectations of older people. This has included a consideration of benefits and value for money from the perspectives of residents, developers and governments.

Design concept adapted from a Dutch model...

The design of the development, and its location, depart from mainstream 'retirement village' developments in Australia – incorporating instead the principles of 'Apartments for Life' developed by the Humanitas Foundation in Holland and now implemented there in 15 complexes. The project is not especially low cost – but is rather intended to offer *high net value* off the back of high value services to a range of stakeholders, including residents, their families, the wider community and governments.

...with benefits to residents, their families, the community and governments

Key elements of this approach, as proposed for implementation by TBS, include:

Dramatic reduction in need for high level care facilities

- Designed and operated to greatly increase scope for residents being able to remain at the complex for the rest of their lives, with a *target of only 5 per cent* ever needing to progress to higher cost residential care facilities, compared to current patterns where about 40 per cent of the age cohorts that would enter the complex are, under current arrangements, eventually moving to such accommodation.
  - Apartments and access to apartments engineered with the flexibility to accommodate changing demands, such as moving to wheel chairs and walkers and the development of movement restrictions due to arthritis etc.
  - Apartments engineered to reduce risks of falls, burns etc., where rising risk is a common reason for people moving to residential care and where remaining risks have adverse implications for individuals and health system costs.
  - Facilities within the complex – including a purpose-built dementia day centre – designed to support in-complex care that would otherwise be sought through a move to higher level residential care.
  - Greater scope for proximity to family and friends, cultivation of a mutual help culture within the complex and formal provision of care advisor services to better organise and manage formal community care – all helping to allow sufficient in-complex care to avoid the need to

move to another facility while also increasing the efficiency of the formal care services.

Savings in health costs

- Design features that should support a range of other health cost savings.
  - Scope for substantially lowering the duration of time spent in hospital following a range of adverse heath events, because of the support capabilities within the complex.
  - Better management, through the care coordination and facilities, of a range of chronic health conditions where poor management can trigger adverse outcomes, need for hospitalisation or high level residential care and death. Included here would be conditions such as diabetes, some presentations of Alzheimer's disease etc.

Access to services and containment of travel costs

- Location in a long-established area, with an established resident aged population, with very good retail, medical and entertainment facilities and transport links, and capable of allowing ageing residents of the area to move to the complex while remaining in close proximity to family, social networks and established service providers.
  - Also supporting substantially reduced costs in the form of travel time, contribution to congestion and emission of greenhouse gases etc.
  - Design of the complex tailored to local demographics.

Affordable housing component

- Incorporation into the project of an allocation of 40 per cent of the units to some form of supported 'affordable housing' directed at the needs of older people of the area seeking affordable housing, including units priced at a discount and subsidised rentals.
- Incorporation of a range of facilities, open space and community services accessible to the public as well as the residential community – affording both size economies and better integration of the complex into the community.
  - This will include restoration and retention of significant heritage assets, including Scarba House;
  - Facilities will include a dementia day centre, consulting rooms for a range of health and other services, a 'men's shed', craft and hobby spaces, gardens, internet access and café;
  - Care advisor and community development coordinator.
- A cumulative consequence of all these features is that the buildings should embody far greater flexibility to adapt not just to changing demands of individual ageing residents, but also to adapt or be adapted to different use patterns in the future should demand patterns shift.
  - Effectively, the design embeds much greater 'future proofing' than is typical of current aged care facilities and, indeed, of much of the general housing stock.

Some up-front costs that 'buy insurance' against future loss of independence

The development is proposed to be of a high standard, reflecting the desirability of the area and offering attractive choice to existing older residents looking to move to accommodation more appropriate to their current and likely future requirements, but not necessarily involving a drop in standards. The proposed development will entail some significant 'up-front' costs relative to a more traditional retirement village in outer Sydney:

- Land value is substantially higher, with the proposed site valued at about $12-15m. TBS already owns the site and is proposing to contribute the land at no cost to the project, but this still involves high opportunity cost.
- The flexible/universal design features to be incorporated into the apartments, the standard of fit-out and the proposed private meeting spaces and roof terraces will add perhaps $5-10,000 per apartment to costs.
- Incorporation of a care advisor and community development coordinator into the design concept implies an on-going operating cost – which TBS proposes to treat as a subsidy.
- The decision to incorporate a large block of affordable housing is not fundamentally an inherent cost to the Apartments for Life concept , but certainly it has implications for overall project financing, because of the opportunity cost of the subsidy. It can, however, be considered separately.
- The decision to incorporate community access facilities again adds to the land requirement and overall costs.

The development is certainly not low cost in comparison with traditional retirement housing developments, but this would seem a poor basis for comparison. Its economics rest primarily on it offering *greater value* to some people than would either more traditional retirement villages or attempting to remain in a private dwelling. The nature of the development also offers scope for reducing future costs of building and providing high care residential facilities – by safely lowering the demand for such facilities.

Apart from the affordable housing component, apartments will have an entry fee (on a loan and licence basis) broadly reflective of quality apartment prices in the area – much less than the value of many private dwellings in the area, but more than many retirement villages located towards the fringes of the city would ask.

Key questions that arise from this are:

Benefits greater than costs?

- whether there would be benefits/value sufficient to justify these higher costs? and

Financially viable?

- whether the mechanisms exist or could be established to make a project of this type financially viable, even without the generosity of TBS – would the model be capable of much wider implementation?

The latter question is of particular importance because of the ageing trends in the community. These are set out in some detail in the report and imply the need for a dramatic expansion in accommodation suited to the older population over the next two to three decades and that are set to impose significant fiscal pressures on governments. The proposed development is of particular importance in this context because of the potential for it substituting, to a substantial extent, for both much higher cost high level residential care facilities and for higher cost in home care and support.

Scope for exploiting the ageing trend

The ageing trends imply both substantial value in identifying more cost effective ways of addressing the accommodation needs of the aged and a real opportunity for a new approach, even if it entails higher up-front costs, to be competitive as part of a general expansion in the amount of accommodation, inclusive of high care accommodation – rather than needing to compete to 'squeeze out' existing facilities with high sunk costs.

The value propositions on which an assessment of these questions should be based include:

Residents can remain in their established area

- The higher land values should 'buy' a complex that, to a much greater extent than traditional retirement villages, accommodates residents *in their established area*, that allows for much greater utilisation of informal care – substituting for the higher costs of informal care and triage to higher cost facilities – and that supports strongly expressed preferences of the ageing population to remain in their own homes and close to family and friends.
  - Development at the proposed site, and drawing residents from the region, will also free up substantial other accommodation – in general better suited to families – to meet the needs of others in the area.

Flexibility to avoid future costs and accidents

- The higher costs of building and fitting out the apartments will 'buy' substantial flexibility to reduce high cost, painful and sometimes fatal accidents amongst older people and again to make it technically feasible for more residents to remain in their own apartment in their own area.
  - This can defer or avoid substantial costs associated with movement to a higher care facility, including the costs and stress of the move and the capital and on-going higher costs of support.

Size economies in care services

- The co-location of clients of community care workers should allow delivery services of substantial value to residents while also enabling significant cost savings from within the formal community care sector – especially via significant reductions in travel times between clients, allowing significantly better time utilisation by skilled (and possibly increasingly scarce) community nurses etc. The care advisor should be well placed to ensure maximum value is obtained from this opportunity.

Opportunity for cost effective affordable housing

- The proposed 'subsidy' for affordable housing is core business for TBS and one of its key reasons for supporting the project in the way it is doing; an analogous subsidy would almost certainly be made, in other ways, were it

not for the opportunity presented by this development; if not, responsibility would fall even more to governments.

  - TBS recognises both a social justice argument and the benefits for older people, rich and poor, in staying within their established community.
  - However, the affordable housing subsidy is not fundamentally a cost inherent in the 'Apartments for Life' concept and other developments might avoid or scale down this feature, deliver it in a different form and/or finance the subsidy in a different way.
    - … It is perhaps more constructive to recognise the opportunity for delivering a more cost effective affordable housing package overall, by tapping into the opportunities provided by the proposed development.
    - … This argument applies as strongly to government concerns for affordable housing as it does to TBS. Developments that incorporate the 'Apartments for Life' concepts may well offer cost effective opportunities to better meet community and government expectations for affordable housing, especially with demands changing in line with shifting demographics – with implications for government policy.
  - The cultivation of a broadly based residential community, drawn substantially from the local region, is seen as adding to the scope for cultivating a mutual help culture within the complex, which in turn should reduce the costs of formal care and the need for residents with emerging disabilities to move.
  - There may also be some size and scope economies in simultaneously addressing the accommodation needs of the general ageing population and the changing age profile of those needing affordable housing.

Sharing of facilities for size and scope economies

- Incorporation of facilities accessible by the wider community should deliver quality of life benefits for residents and the wider community while allowing for size and scope economies to be tapped in the delivery of these services.
  - This suggests possible scope for some of these costs being financed from outside of the residential accommodation project because of the benefits delivered outside of the project.

Potentially large savings for governments

- The complex should offer substantial cost savings to governments, through reduced requirements for residential care, reduced hospitalisation and other health care and reduced demands for additional affordable housing.
  - Noting that these are 'external benefits' that do not feed directly into the financial performance of the project – but that are real and that do affect the true economics of the project.

Highly likely benefits will substantially exceed costs

The above 'value propositions' all apply to the Ocean Street development, viewed as a project. Viewed this way, we have concluded that the project has very strong prospects for delivering net benefits – and probably very substantial net benefits. It is also likely to be able to be self-funding over time, but may not, in its current form, be commercially attractive for many developers who would attach less emphasis to the value of services delivered but not paid for (affordable housing etc) than does TBS. This possible misalignment – with a project that offers benefits well in excess of costs but that may not be commercially attractive – would be the consequence of a market failure, with a range of external benefits, including cost savings to governments, not being reflected in the financial performance of the project.

...but financial attraction may be muted without some policy change

Value of project in demonstrating concept and reducing uncertainties

TBS also sees a key function of the project being its use as a *demonstration site* for the 'Apartments for Life' concept – possibly encouraging *earlier and faster implementation across multiple sites* in Australia in the future. In addition to the demonstration effect, there is likely also to be important learning in the course of adaptation of the model to Australian conditions, which could again assist other projects.

Viewed this way, the development could secure *valuable options for the Australian community* to address the challenges of an ageing population more cost effectively – in terms of both lower costs to governments and improved quality of life for ageing people and their families. The demographic trends are strong enough to suggest that even a small per complex benefit, if shown to be financially viable, could translate into a large benefit for Australia over the next few decades.

Inclusive of demonstration value, project looks much stronger

Against this background, the proposed development concept looks a lot more attractive. In addition to the good prospects for direct benefits, in lower costs and higher quality of life, from the specific project and with low downside risk, the projects would 'buy' valuable *insurance* against unnecessary delay in incorporating the 'Apartments for Life' approach sensibly into the range of responses to the changing age demographics of Australia. The potential value of this is very high.

Main conclusions

Appealing model certainly warranting close consideration

Against this background, it has been easy and appropriate to conclude that the proposed development represents an *appealing model warranting close consideration.* The innovation in the 'Apartments for Life' concept lies far more in the intelligent packaging of individually proven elements than in whole new elements – substantially limiting the risks – while the established experience in Holland adds further to confidence about the feasibility and value of the overall package.

More generally, there are strong indications that TBS is both developing and promoting an accommodation model that could prove very attractive in coming years to commercial developers, governments and a significant group within an ageing population. Notably however, TBS is, for reasons reflecting its culture and objectives, choosing a form of implementation that means TBS cannot expect to obtain a commercial return – precisely because it is choosing to subsidise, as part of the package, a range of potentially high value social and community services.

More detailed consideration of the likely economics of the project has then supported substantially stronger conclusions:

Favourable cost-benefit

- If, as seems highly plausible based on available evidence, project cost estimates can be broadly met and the assumed willingness to pay the proposed charges is proven, then the underlying model appears to offer benefits, *aggregated across all stakeholders*, well in excess of costs.
  - Current levels of community interest, including indications to TBS of immediate willingness to commit, in conjunction with the nature of the unique features to be offered, strongly suggest that there will be adequate willingness to pay at the budgeted buy-in prices.
    - … Indeed it may well emerge that TBS has 'missed' an opportunity to place these units, that will offer quite unique features, at substantially higher prices and has foregone the associated returns. This is not a criticism of the pricing strategy – but an observation about the strategy being pursued, including TBS's need to manage project risks and desire to encourage wider consideration of the potential of the model.
  - Construction costs appear to have been carefully estimated but at this stage must retain some uncertainty. However, the weakening in the construction sector since the costs were estimated seem likely to have reduced the risks of a substantial blow-out.
  - Both these risks are, in any case, to be borne by TBS – much clearer information on these two matters should be available to any future analogous projects.

Benefits spread widely, costs concentrated

- A significant proportion of the benefits will not automatically be returned to TBS as a financial return:
  - This is true of the proposed subsidy for affordable housing (about 25 per cent of project costs) and of the benefits governments will derive from lower costs, as a result of higher retention rates at the complex (avoiding the higher costs of residential aged care), lower injury risks and health impacts of social isolation and associated lower health system costs.
  - Despite this, it is possible that the project could prove self-funding, over its life. However, at present the risks that this would not be true

are significant – because of the extent of external benefits – and likely to prove an impediment to rapid take-up of the model in the form proposed.

  - This point in no sense detracts from the indicated favourable economics for the project – the affordable housing component involves benefits that TBS has concluded will exceed costs – but it does have possibly substantial and detrimental implications for the level and rate of commercial investment.
  - It is possible in time that capital gains – reflecting growing community understanding and valuation of the complex – could contribute to substantially improved project financial performance. This is an uncertainty likely to take longer to resolve, though very strong demand for the initial release of apartments would support this being the case.

Scope for variants with better financial performance but some lower benefits

- Developers without the willingness of TBS to subsidise affordable housing could probably reconfigure a project to offer lower risk and more certain profit by lowering the affordable housing component, though the high land value and perceived remaining risks could again impede rapid take-up of the model.
  - A problem with delaying the take-up of the model, and/or slowing the rollout, lies in the fact that this is likely to imply a perpetual lag in the availability of this type of accommodation and the resultant benefits.
    - … The cumulative cost of a slower than optimal pattern of implementation could, based on estimates of cost savings to the governments and the potential value to residents, be very substantial and effectively unrecoverable.
    - … The per development cost savings to governments have been estimated, probably very conservatively, of the order of $20m in present value terms – possibly substantially more. This is based on both conservative assumptions and the use of an inflation-adjusted discount rate of 7 per cent, reflective of normal government assessment standards; at a 3 per cent discount rate that some might see as more appropriate to assessing social policy the corresponding figure is $33m.
    - … These estimates exclude quantification of a range of potentially very significant cost savings – with actual savings of substantially, possibly several times, more being both plausible and probably a better reflection of the expected savings to be had.
    - … The risk with substantially, and sub-optimally, slowed investment of this form is potentially hundreds of millions or billions of dollars of unnecessary costs – assuming, as an indicator, that there could be a cost effective role for something of the order of 50 such developments progressively implemented over the next 25 years across Australia (as is discussed below).

Policy change may be needed to get the best balance

Possible up-front government contribution to 'buy' future cost savings and community benefits

- It may well be appropriate for governments to consider a change in policy to help address this misalignment and to post better signals for investment in facilities of this type.
  - This might include consideration by governments of an up-front capital contribution to such projects;
    - … Rather than viewing this as a subsidy, it could equally be viewed as governments removing an impediment to earlier take-up and hence *'buying' the extra value of future government cost savings* that such acceleration could deliver to governments. This measure could well entail net savings for governments.
  - More generally, since any policy response can be made *conditional on the demonstrated performance* of the Ocean Street site in firming up the costs of these developments and the nature of the demand in the community for the features and could be progressively *adapted as knowledge of benefits and demand improves,* sound policy response could entail all of low costs, large upside potential and low risk in reducing the fiscal implications of an ageing population.
  - Indeed, this could allow the governments to buy 'options' for the community both to lower fiscal costs and to improve the choice and quality of services to the ageing population.
  - Current cost sharing arrangements, across jurisdictions, agencies and programs, lack flexibility and may post perverse incentives that operate against governments taking full advantage of the opportunities offered. Regulatory failure of this type has been recognised as a priority area by COAG.

We have not independently audited the project costs, nor the assessment of market willingness to pay. Based on information provided, the prospects for the project delivering benefits well in excess of costs, across a range of stakeholders, are considered very high.

TBS is assuming key project risks, to the benefit of the community

The fact that TBS is prepared to accept the project risks on the basis of its perceptions of the prospects for success both at Ocean Street and in encouraging wider use of the model means that the wider community is well-placed to tap into the upside potential of model, while being reasonably protected from risks associated with any uncertainties on these cost and demand issues. The investment by TBS offers substantial value to the community, both as a project in its own right and as a vehicle for demonstrating a model with potentially much greater benefits.

The project will change the options available to the community in ways that look likely to entail high value – and probably even higher value if a way can be found to alter the sharing of projects costs and future cost reductions that would currently fall largely to governments.

Just how many models implementing the 'Apartments for Life' concepts would make sense will be shaped by several factors. This clearly includes demand, where early expressions of interest from prospective residents of the Ocean Street project supports significant demand to be tapped – and the earlier trends suggest that this demand is likely to increase substantially in the future. The basis for a firm assessment of demand, based on demonstrated willingness to pay, will firm substantially in the near term.

However, the nature of the 'Apartments for Life' concept also favours locations with key characteristics. This typically involves a location close to good transport and key services and located within an area with an established population that includes significant numbers of older people; most of these characteristics would make such sites attractive for a range of purposes, implying competition. Access to suitable sites at an acceptable cost could prove a greater constraint, at least on the rate at which these developments could proceed, than would demand.

Indications that a substantial number of these developments could make sense

Nonetheless, something of the order of 50 such developments over the next 25 years, across Australia, seems not unreasonable if the attractions of the model are established early. The Dutch experience certainly points to scope for rapid escalation of the model. In parallel with such development, were it to occur, it seems likely that other new or substantially renovated retirement complexes would probably progressively implement many of the features of the concept.

For example, an inner city location is not a prerequisite for incorporating the building design features that support continued safe occupation by increasingly frail residents. The same could to an extent be said about access to good transport. It seems plausible that, in time, the spectrum of developments for older people – and even aspects of new family housing – could incorporate features that draw from the experience of the 'Apartments for Life' facilities and other broadly analogous initiatives.

Potential savings to the Federal Government of the order of a billion dollars or more

Were development on this scale to occur, using an increasingly well understood model, then the benefits to users of the facilities, to their families and to governments and the wider community would be very large – and such development could play a valuable role in addressing some of the pressures from an ageing population. Indicatively we have estimated that the above progressive development of 50 such facilities over the next 25 years could imply savings for the Federal Government of at least several hundred million dollars and arguably a lot more. A significant proportion of these savings could be attributable to the investment, subsidy and risk taking of TBS in relation to Ocean Street – if it proves to be a catalyst for earlier and faster take-up of the 'Apartments for Life' model.

Actual numbers of such developments built over the next 25 years – and the level of affordable housing incorporated into these developments – are likely to be highly sensitive to government policy settings across jurisdictions and across the spectrum of aged care and health and social services. There are likely to be significant externalities that could justify a substantial policy shift – and that support policy shift already being considered for a range of allied reasons.

1 Purpose

This report has been prepared for The Benevolent Society (TBS). TBS is at an advanced stage in developing plans to construct a substantial retirement complex in Ocean Street, Bondi, in Sydney. Relative to more traditional retirement village designs in Australia, the proposed development seems likely to have significant implications for the nature of care provided to residents, and for the duration of the period during which care can be sensibly provided within the complex, in ways that could have significant strategic implications for aged care in the future.

Indeed, TBS views the proposed Ocean Street development as a means of demonstrating a potentially high value concept with likely wider application, as well as being a useful new retirement complex in its own right. The TBS philosophy is strongly supportive of encouraging and supporting wider adoption of valuable innovations in the aged care sector.

The purpose of this report is to examine some of the propositions that have emerged from the project development process – in particular those suggesting the model could offer significant cost reductions to an aged care system expected to come under substantial pressure over the next few decades, while also offering better and more highly valued services to residents. Broadly speaking, the project is probed in terms of costs and benefits, as seen from the differing perspectives of TBS, prospective residents, governments and the broader community and developers who might consider replicating the model at other sites. The emphasis in the probing is on whether, and how robustly, it can be asserted that benefits will exceed costs and whether a shift in policy might increase the potential value of the model.

2 Background

2.1 The Benevolent Society

TBS was established in 1813 and today employs about 800 staff who work with about 900 volunteers. TBS has a long history of focusing on the needs of individuals and communities, primarily in NSW and SE Queensland.

Throughout their history there has been an emphasis on innovation in the provision of health and community services – characterised by such examples as:

- introduction of the first social service for maternity in Australia, with a district nursing service in 1820;
- provision of teaching for nurses and midwives by 1877; and to medical students and doctors, by 1888;
- establishment of the first maternity hospital (Royal Hospital for Women at Paddington) in Australia in 1905 and its evolving to become a centre for medical research in 1931.
- strong engagement in the development of social policies, including influence in the establishment of the Child Protection Act and the initial Australian aged pension, both in the 1890s.

TBS established, in Sydney, its first Village for the Aged in 1964 and has since evolved as a major provider of aged care facilities and services. In 1993 it established community programs to help older people stay at home – and this could be viewed as the genesis, within TBS, of the strategy emphasis that has led to the proposed Ocean Street development, with its integration of 'Apartment for Life' and 'age proof apartment' concepts alongside a level of subsidised social housing.

While TBS will continue as a major provider of community aged care services into the future, it sees potential for better addressing needs in this area through a proactive role in innovating and in encouraging sound change in the wider aged care sector.

2.2 Humanitas Foundation & 'Apartments for Life'

The Ocean Street development is designed to draw heavily on concepts and experience that emerged in Holland, broadly around the same time as TBS began to focus on helping older people stay at home.

The Humanitas Foundation in Rotterdam established 3 complexes of 'age proof' apartments in 1995 and now has 15 such complexes, involving 1,700

apartments – accommodating about 2,400 persons – with more planned. In parallel with these developments, Humanitas has greatly reduced its involvement with nursing homes, indeed demolishing some in response to rising preference for accommodation in 'age proof' apartments.

The shift in emphasis in both organisations appears to have reflected a range of concerns with the way that aged care services had developed:

- Recognition of a rapid *rise in numbers of aged and retired people*, with much *increased life expectancies*, expectations of years in retirement and expectations of duration of reasonably good health – reflecting parallel trends across much of the Western World because of improved health outcomes and declines in birth rates.
  - This entails both substantial difficulties for societies in managing the rapid ramp up in aged care demands *and* significant opportunities for rapidly changing the mix of aged accommodation and care infrastructure as part of the necessary expansion in the available facilities.
  - A new facility for the aged, embodying a different service delivery model, is not competing with established retirement homes for a viable place in the range of options, but rather with other new homes.
- Recognition of substantial unmet and growing demand for greater independence for elderly people – that there are real *social cos*ts implied with mainstream processes that entail a high proportion of the elderly moving initially to accommodation remote from family and friends and often then needing to progress into higher care facilities that traditionally afford even less independence and control.
  - Indeed, the Dutch experience is increasingly suggesting that the proportion needing to progress in this way can be only a fraction of that traditionally assumed.
  - Given the high costs of these high care arrangements, this experience points to a possible 'win-win', with both lower financial costs and lower social costs.
- Recognition that the demands for the elderly to move into higher care facilities are substantially driven by limitations in the design of existing lower care aged care facilities and in the systems used to deliver support into these facilities.
- Concerns with labour market capacity to respond to the changing demographics and the implied demands for government-supported in-home carer assistance;
  - With the possibility that better structured and coordinated formal care arrangements, coupled with better motivated and managed care provided from within the aged care communities and their families, and using capabilities engineered into the accommodation, could help

address these concerns and make adequate care more feasible, lower cost and less clinical.

- Recognition that, in parallel with the general ageing trends, the mix of housing types running into the future will differ from the historical mix, including reduced relative demands for 'family oriented' housing.
  - The potential for older people to move into denser housing developments well-suited to their forward needs and demand for independence, while freeing some of the existing stock of family-oriented housing points to likely synergies between best meeting the housing needs of an ageing population and cost effectively meeting the housing needs of the wider population within developed areas.

Broadly analogous thinking was prompting change in other counties around the same time. The UK has been progressively developing concepts of 'lifetime housing' in which building standards are increasingly specifying adaptability of housing design – across all standards, not just aged care housing – to provide flexibility to adapt to changing needs as a result of age or disability. Sixteen design and engineering criteria have been developed, emphasising such features as wheel chair and walker accessibility, but extending to routes for tracking hoists, car park widths and entry gradients.

All new public sector housing in the UK is to comply with these lifetime housing standards by 2011 and there is a target of 2013 for all new private housing. In terms of complex design, the Humanitas model and its proposed adaptation to the Ocean Street site could be viewed as specialist implementation of these principles to a complex designed to accommodate people from near retirement for the rest of their lives – with recognition of the access and amenity of family, friends and carers. This model then goes a lot further in the way it approaches the coordinated provision of care through professional, community and family carers.

Of course, these two approaches could be both complementary and could, in time, lead to falling demands for specialised aged accommodation. However, the pending dramatic rise in the aged population suggest much more scope for rapid rises in the amount of 'Apartment for Life' accommodation than will be achievable via changes in standards across housing generally.

2.3 Other Australian perspectives

The 'Apartments for Life' initiative can also usefully be viewed in the context of a range of developments in Australia, as well as elsewhere, emphasising *design for greater adaptability* in the future. There has been a range of drivers of these developments, including recognised potential for savings in life cycle financial costs, potential for better social outcomes and, increasingly, recognition of energy and environmental benefits from such design if it allows

for progressive adaptation of buildings to meet evolving needs rather than a demolish/rebuild approach that can waste embedded energy as well as entail excessive financial costs. There is also recognition that scope for progressive minor adaptation of a building can deliver greater functionality than periodic rebuild or major renovations.

Guidelines in housing construction and renovation with a view to adaptability to changing needs over time were established in 1995, through AS4299.

The Cooperative Research Centre for Construction Innovation was established as a joint Federal Government/Industry/university initiative in 2001 with a major emphasis from the start on through life value and sustainability of buildings, including housing – necessarily embodying a strong emphasis on adaptation.

The Australian Network for Universal Housing Design, and its predecessor organisation the Accessible/Adaptable Housing National Network have for several years been working to better establish principles of universal and adaptable design in housing and other buildings and facilities in Australia and "new policies and initiatives which are aimed at promoting lifecycle sensitive, liveable communities". This work has paralleled a growing emphasis on 'universal design principles' internationally, including the above trends in the UK.

Aged and Community Services Australia (ACS) is the major peak body representing providers of aged and disability care accommodation in Australia – covering over 1,100 providers nationally. Aged and Community Services Australia (2005) reported on a major review of developments and options in relation to the provision of accommodation. The report noted in its introduction:

> "Increasingly, aged and community care services are being provided to people in their own homes. In line with this there is a growing need to provide appropriate housing options for older people, as well as people with disabilities and their carers."

This emerging emphasis on flexibility and adaptability of housing design has occurred around the same time that there has been a significant shift in approaches to planning and managing investments in the context of changing and uncertain future circumstances. Traditional investment analyses have largely been based around mapping out a base case, or most likely scenario for the future, optimising the design of an investment strategy to deal with this most likely scenario and then (possibly) testing that strategy for robustness in respect of a set of worse case scenarios.

Starting in the late 1970s, there has been progressive recognition that this approach can seriously distort investments because it does not adequately

account for differences in the flexibility that exist between alternative investments. They can be heavily biased against investments that entail small additional up-front costs but that deliver significant insurance against risks – including the risks of being unable to take full advantage of upside opportunities as well as covering downside. So-called 'real options' methods (Amram and Kulatilaka, 1999) have emerged to address these serious distortions. These methods very explicitly focus on the value of flexibility built into an investment strategy, and encourage designing strategies with greater value because of this flexibility and insurance. In applications across a wide range of infrastructure and other investments, the approach has been shown to point to opportunities for greatly reducing costs and/or increasing expected benefits that were systematically overlooked using the older methods.

The 'Apartments for Life' concept could be viewed as implementing this modern approach to investment planning in respect of accommodation for the aged. The adaptability being designed into the facilities delivers options to deal with possible later departures for plans – such as the emergence of disability – and as such *delivers options* to lower the likelihood of losing independence and needing to move to a higher care facility. It also delivers a *range of other options* to maintain closer links to family and established community etc.

We emphasise this options perspective because of the discussion in Section 6, that recognises that TBS's commitment to the Ocean Street project is itself an options strategy – that will deliver options to governments, to the community and to prospective developers, not just to access the Ocean Street complex but also to extend the reach of the 'Apartments for Life' through further investment.

Sound assessment of the economics of the Ocean Street investment requires that the value of these wider options – flowing from the potential of the Ocean Street development to demonstrate the model, to firm up understanding of costs and market demand for this type of complex and probably to provide insights into improvements in the design – be recognised explicitly.

3 Overview of key trends

That Australia, in common with most developed economies, is seeing a rapid aging in its demographic profile is now widely known, along with an awareness that this has significant implications for the future – including, but certainly not restricted to, pressures on capacity for growth and on budgetary provision for health and aged care costs.

These demographic trends are *not fundamental to the case* for implementation of the 'Apartments for Life' concept in *some future retirement housing*. However, *if the 'Apartment for Life' concept offers real benefits* – in terms of either or both of improved quality of life and containment of the costs, broadly defined, per person accommodated – then the fact of an aging population has significant implications for strategy to take advantage of these benefits, especially for the cost effective rate at which the model could be implemented across multiple complexes, and suggests very much greater potential benefits:

- Rapid aging is expected to bring with it escalation in expected demands for accommodation for older people;
  - This of course implies *costs* in rolling out the necessary investment;
  - However, it also creates *opportunities* to bring in new accommodation models, and expansion in the range of accommodation choices, at a *substantially higher rate* than might occur if dealing with demands from a more stable population of aged people, where new designs for facilities would need to compete with existing facilities and options for upgrading existing facilities.
    - … In effect, the opportunity cost of making the 'Apartments for Life' capability available in a number of complexes is likely to be greatly reduced by the aging trend.
- With an aging population, the potential *aggregate* size of cost savings and quality of life improvement that might be delivered via an improved model will also be growing substantially – reinforcing the value in testing prospective ideas for better ways of meeting these needs.
  - Effectively, the value of the 'insurance' against missing out on or delaying a major improvement, which might be acquired by testing a model such as this, is much greater in the context of an ageing population.

In addition to (and as a contributor to) the trend towards an older population is a superimposed trend towards higher cost medical interventions with implications for forward budgetary costs; associated pressures on key workforce skill sets, with the escalation in demand levels relative to workforce size, are also highly relevant. These trends interact in ways that also have implications for the potential value of the 'Apartments for Life' concept.

It is appropriate therefore to stand back and look at these trends and their strategy implications.

These trends, and their likely implications for the economy, have been the subject of close scrutiny by governments in recent years. Of particular importance in assembling, testing and analysing information from a range of sources and probing likely budgetary and other implications, have been three reports by the Federal Government, which have in turn drawn from submissions and analysis provided by a wide range of agencies and community groups:

- Federal Treasury (2007) coordinated development of the second *Intergenerational Report* – following from the first report 5 years earlier;
  - This includes detailed modelling of demographic, economic and related trends and assessments of likely implications, especially in relation budgetary implications and associated fiscal sustainability.
  - Population aging is only part of the demographic changes of interest, but these are important and are the subject of detailed probing, including in relation to aged care.
- Productivity Commission (2005) undertook a major review of the *Economic Implications of an Ageing Australia.*
  - The work was then updated and extended in key respects in Productivity Commission (2008), drawing also on the modelling work that had underpinned Treasury (2007).

Also highly relevant was the Aged Care Price Review Taskforce (2003) report, which in particular addressed the issues of pricing and funding residential care in the context of the ageing trends.

These reports reflect recent detailed probing of the implications of an ageing population for Australia. While the work was coordinated and closely scrutinised by the Treasury and the Productivity Commission, it was able to draw heavily from inputs across the range of relevant government agencies and other stakeholders.

In this paper, work done in the preparation of these reports and related studies and papers has been reassessed – focusing on the potential role of the 'Apartment for Life' model of aged accommodation and any associated risks likely to need management. It emerges that these implications are potentially very significant.

3.1 An ageing population

A range of developments over the past four decades has underscored the ageing of the Australian population and laid the foundations for this trend continuing for several more decades. These developments include:

- Improved effectiveness of health interventions (preventive and treatment), especially in relation to age-related illnesses, such as cardiac disease and cancers, that were previously commonly fatal;
  - these very successes have shifted emphasis somewhat towards other illnesses of the aged that have, as a result of these successes, become more prominent and that have particular implications for the requirements for aged care; these include various forms of dementia.
- Risk reduction through some aspects of lifestyle changes (eg, reduced smoking), that impact particularly on life expectancy in older age groups;
- The ageing of the 'baby boomer' post-war births bubble;
- A long-term decline in birth rates (though recently these rates have been higher than had previously been projected); and
- Immigration patterns which have tended to moderate slightly the implications of the other factors for the age profile of the Australian population.

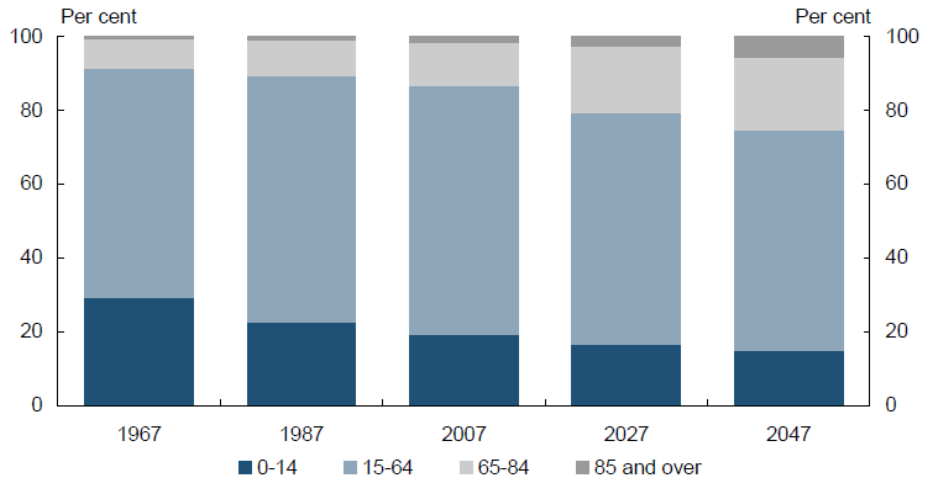
Demographic modelling (Treasury, 2007) supports very strong expectations of both the flow through of these effects over time and continuation of analogous trends over the next 30 to 40 years that are likely to deliver:

- Modest rates of growth in total population, with the growth rate declining somewhat over time:
  - Absolute population growth in the next 20 years is expected to be similar to the last 20 years, though even this implies a lower *rate* of growth.
  - Population growth in the subsequent 20 years – from 2027 to 2047 – is forecast to be *less in absolute terms*, and at a *substantially lower rate*, than even the next 20 years.
- *Much* more dramatic rises in the *proportion of population* in older age groups.
  - Between 2007 and 2047, the number of persons over 65 is forecast to increase more than two and a half times, to exceed a quarter of the total population – from current levels of about 14 per cent, and 1967 levels of well under 10 per cent.

    … A truly dramatic shift in the age profile of the Australian population is forecast.
  - In the same period, the proportion over the age of 85 is forecast to more than quadruple – with this being particularly relevant to aged care demands.

- Again in the same period, the number in the 15-64 age group that broadly reflects working age is likely to increase by only about a fifth.
  - … Even allowing for an anticipated rise in the participation rate – the proportion in this age range working or actively seeking work – these trends point to a substantial rise in the population per employed person, with pressures implied for GDP per capita.
  - … To quote the Treasury (2007, p 17): "In 2007 there are 5 people of working age to support every person aged 65 and over. By 2047, there will only be 2.4 people of working age supporting each person aged 65 and over."

Figure 1 **Historical and projected age structure of the population**



Source: Australian Bureau of Statistics Historic Australian Population Statistics 3105.0.65.001 Table 19 and Treasury projections.

Note: This is Chart 2.5 from the second Intergenerational Report (Treasury, 2007)

This is not all, or even mainly, a 'bad news story':

- The fact of people living longer, and staying reasonably healthy for longer, is fundamentally a good news story – society has been using its growing wealth to 'buy' better health and preferred lifestyles.
  - The ageing trend, coupled with medical and lifestyle interventions to better address chronic problems associated with ageing, has brought with it a significant increase in expectations of years of healthy life, and society has demonstrated that it values such extension highly.
- While the number of people of working age *per older person* is expected to halve over this period, retirement savings policies already in place will progressively bite, to reduce the level of support needed, at least per annum, by each aged person.
  - Though there will be a transition period of some duration during which a high proportion of the aged population will have spent a number of years in the workforce ahead of these policies being introduced and fully ramped up.

- An important contributor to the aging trend is the shift that has occurred in fertility rates – with some further decline expected – reducing the number of children needing support per person of working age and providing a modest offset (though with longer term implications likely to reinforce the aging trend).
- While the ageing trends can be expected to act to constrain growth in GDP *per capita*, they are not expected to prevent GDP per capita from growing – there is substantial scope for covering the costs of these trends through a proportion of the gains from longer term economic growth.
- In general, we are seeing a shift towards a new age profile, that will in future include a substantially higher proportion of people over 65 and over 80.
  - However, the trends are largely self-limiting – suggesting progressive convergence on a new 'equilibrium' age profile rather than indefinite ageing of the population.

Key role for smarter responses

Nonetheless, these trends do highlight important challenges and opportunities. *Smarter* responses, as opposed to simply scaling up traditional responses, could play a key role in limiting unnecessary costs while retaining and even strengthening the upside benefits that underlie these ageing trends. In particular, this ageing of the population will bring with it a range of consequences that have a bearing on the potential value of the 'Apartments for Life' concept:

- The growing population, and rapidly growing population of older people, will create demands for new housing stock and, crucially, for a marked shift in the mix of housing stock to reflect the much larger proportion of aged people.
  - These effects are quantified in Section 3.4 below, but in summary, current Federal Government estimates suggest a tripling in the demand for low care places and more than a quadrupling in the demand for high care places over the next 40 years.
- While the larger numbers of people over 65, and even over 85, will in many cases have much better health than would have been typical of people of those ages quite recently, the fact is that older people do have greater need of health and community support services of various kinds.
  - In terms of fiscal and wider cost implications, these health cost impacts may outweigh direct aged accommodation costs. A sobering critique of the net implications of the trends for health costs is provided in Banks (2008).
  - However, an important feature of the 'Apartments for Life' concept is the scope it may offer for reducing some health and social costs as well as directly attributable accommodation costs – including less time in hospitals, because of the likely greater scope for returning to accommodation better suited to the demands of older people and the

reduced demands for formal home support that would be needed in less suitable accommodation.

  - Beyond physical health and safety concerns are risks for an ageing population associated with potential for social isolation, loss of independence over longer time periods than were historically normal etc. The 'Apartments for Life concept' embodies a range of features directed at these social factors that, inadequately addressed, can easily add also to health and community care costs

- Paralleling the ageing trend has been a clear trend towards the population seeking and expecting greater independence and control over their lives and lifestyles.
  - Delivery of a substantially reduced risk of losing such independence and control has been a central tenet of the 'Apartments for Life' model since its inception. To the extent that catering to these demands can also reduce future requirements for hostel and nursing home forms of care, there appears to be scope for also delivering substantial savings to governments.
- The much greater life expectancies of people now middle aged and older have important implications for the allocation and use of the wealth this group has been accumulating across the working life of its members, as it also has for the level of wealth accumulated by the end of working lives:
  - Consumption of goods and services now and in the future is expected to persist for much longer past retirement than in the past. This trend has underscored wide-ranging reforms in the areas of pensions and retirement savings to deliver both a sustainable pensions policy and to support the rising expectations of independence and control. Nonetheless, the ageing trends imply significant growth in pensions and related payments into the future.
- The aggregate impact of the set of pressures from ageing on Federal finances would, *in the absence of policy and behavioural shifts*, be quite substantial and, while the translation of the ageing trend into higher health care costs and aged pension costs would be dominant, increased costs of aged care and carers would be significant elements.
  - Productivity Commission (2005) estimates suggest that, in the absence of offsetting shifts in strategy, the extra costs of aged care and carers would, by 2045, would require an increase in rates of taxes (state and federal) in order to cover these costs of about 4 per cent – as part of an overall increase in tax rates of 21 per cent to meet the net increased costs to governments from ageing.
  - The cumulative incremental cost of these higher aged care and carer costs, due to the ageing trend, out to 2045 would, on this basis, be about $427 billion. If funded strictly through debt financed at 5 per cent, this translates to an anticipated increase in debt levels in 2045 of about $900 billion – roughly equal to a year's GDP at current levels.

- Later Treasury estimates, using somewhat evolved impact modelling, suggests the overall impact may be slightly lower, though of the same order of magnitude – attributable in part to the wider scope of the Intergenerational Report, that includes consideration of other demographic changes that modestly help offset the effects of ageing.

Viewed in these terms, the numbers can be particularly – and unnecessarily – scary. It is certainly feasible that the fiscal costs of ageing can be financed through a modest but sustained improvement in productivity levels in the economy, coupled with the shifting of some of these costs back to the community. Policy development is proceeding largely on this assumption. These strategies are discussed in some detail in the Productivity Commission reports (2005, 2008) and in Treasury (2007). Of course these reports came out before the recent financial meltdown – with some serious implications for the immediate value of retirement savings and for growth rates – but over the long time periods being considered we would expect that these effects will prove relatively minor.

However, the fact that it should be possible to span such a fiscal gap through productivity improvement and cost shifting does not mean that it would not be desirable to develop smarter strategies that actually lower the size of the gap needing to be spanned. If this can be done, then the gains from the same productivity improvements would be available for use elsewhere and the level of cost shifting needed might be lowered. The analysis below includes an assessment of the *contribution to reduction in the fiscal gap* that might be made via the 'Apartments for Life' model of aged care – that offers possible reductions in the costs of aged care and carers and possibly also reductions in the health costs that have been assessed as the biggest component of the costs of ageing.

This initiative can, at best, only *contribute* to the solution alongside a range of other measures. However, as is outlined below, the potential value of that contribution is substantial and this value needs to be considered alongside the case for the 'Apartments for Life' model potentially also delivering substantial value to the aged population and the associated families, via improved quality of life that is more reflective of the aspirations of the aged community.

3.2 Injury trends

The ageing population is understandably bringing with it a rise in a range of age-related illnesses, including dementia and cancers and osteoporosis.

Injury as a result of falls – in part as a general consequence of reduced stability through aging, but more specifically as a result of some of these heath trends, notably dementia and osteoporosis – has been rising steadily in line with the ageing trend. Boufous *et al* (2005) examined trends in pelvic fractures in

people over 50 between July 1988 and June 2000. They found an almost 60 per cent rise in the injury rate for men and a 110 per cent rise for women. This was despite fractures in car accidents falling substantially.

Falls are the leading cause of death as a result of accident in the elderly – and also result in very substantial costs due to morbidity and to treatment costs. In 1995, falls accounted for half of all injuries in people aged over 70 years in NSW.

As early as 1994, the national cost of falls was estimated to be $2.4b annually (Liverpool Hospital Trauma Department). With increases in unit costs of intervention and the strong trend in numbers of cases, the same methodology would yield a much larger figure today.

Tiedemann *et al* (2008) report an average health care cost per fall amongst persons over 75 years of $1600, but noted that although only 4 per cent of these falls needed hospitalisation, that hospitalisation costs accounted for 67 per cent of the average – implying an average cost per hospitalisation of $26,800. In the group studied, 48 per cent had at least one fall during the study period. Hip fractures were assessed as entailing medical costs of $30,000 per case, based on fees and charges in 2000. This includes no allowance for patient non-financial costs.

Hill (1999), as cited in Aged and Community Services (2005, page 7), reported that adaptable or accessible housing could result in significant reduction in the risk of falls and the need to move into residential care. The 'Apartments for Life' concept includes a range of measures likely to reduce the risks of a fall in the elderly.

3.3 The role of 'informal carers'

The Hogan Review (Aged Care Price Review Taskforce, 2003) emphasised the strategic significance of what was termed 'informal carers' – dominated by a spouse and other immediate family, living in the same household or nearby. The report observed (Section 5.1.3) that:

> "The informal resources are expected to come under strain as a result of lower marriage rates, smaller families and shifting attitudes towards the role of in-family carers. The projected continuing decrease in the size of families will mean that future older people will have access to fewer potential informal carers. The continuing increase in the number, and proportion, of people who do not have children will also increase the number of people without access to informal carers. Similarly, with increased formal labour force participation among women, the ability of women to provide informal care may be reduced, as the opportunity costs of providing informal, unpaid care increase."

The Hogan review clearly recognised the increasingly relative role of residential care:

> "The likely increased availability of home and domiciliary care type services, even in high care, means that residential aged care is responsible for a progressively more elderly and probably more dependent group of people."

In 1999, the OECD had attempted to quantify this drop-off in informal carer support capacity via the concept of a 'caretaker ratio'. This is a particularly crude indicator, being the ration of 'potential carers' to persons aged over 80 years – with a 'potential carer' being defined as the number of women between 54 and 60 years of age, presumably reflecting a traditional carer demographic. Despite its glaring limitations, it is informative to note that the OECD estimated that:

> "In Australia, the 'caretaker ratio' is projected to fall from 2.5 potential carers per person aged at least 80 in 2002–03 to 1.0 in 2042–43."

Superimposing the trend toward more of these potential carers being in the formal workforce, as Hogan observed, tends to reinforce the view that informal care in its traditional form, is likely to become significantly less significant. However, the proposed TBS development includes elements of *shifting and expanding the nature of the informal care sector* as well as supporting *lower cost substitution of formal care* – so these trends have strong relevance for the assessment of the TBS proposal and its underlying residential accommodation and care model.

3.4 Trends in demand for formal aged care

From the perspective of government budgets, the term expenditure on 'aged care services' generally applies (Productivity Commission, 2005) to expenditure on the combination of specialised residential services (low care, previously hostel care) and high care (previously nursing home care) and community care services for people living in their own home..

Of course, health services to the aged could, quite legitimately, be viewed as aged care services but are generally treated as a separate category of expenditure. The two categories are not independent.

Treasury (2007, p52), reflecting and updating the Productivity Commission (2005) work, notes that a range of factors will determine future trends in the utilisation and costs of aged care services:

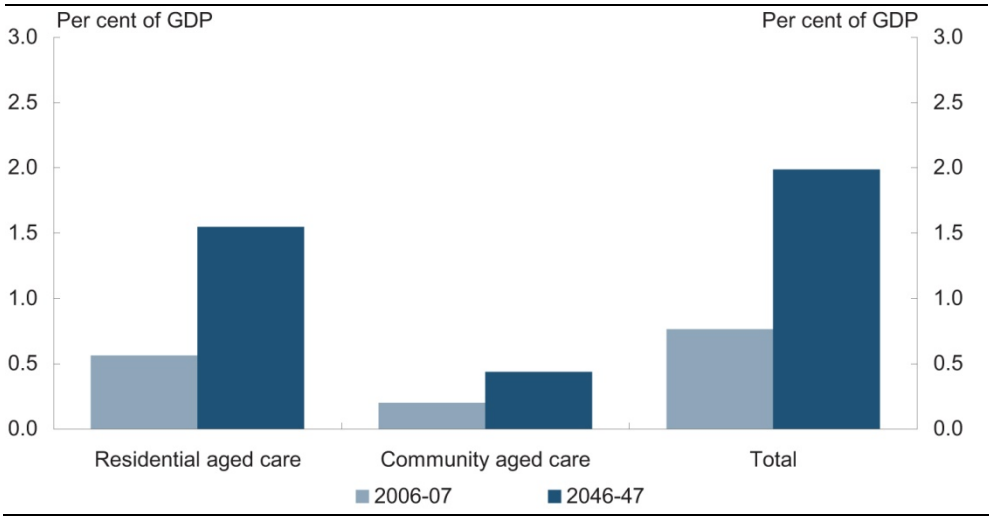
- "changes in the average cost of care per person;
- "future disability levels within the aged population;
- "the mix between residential care and care in the community;

- "the government's planning rules specifying the number of aged care places as a proportion of the population aged 70 and over; and
- "changes in the proportions funded by government and through private contributions."

The Ocean Street and broader 'Apartments for Life' model is pitched strongly at having a significant impact on the first and third of these, with associated links back to trends in costs to governments. In significant ways, the nature of the proposed design could also have a impact on the *effective level of disability* amongst residents.

The modelling reported by Treasury points to expectations of a very significant rise in costs to the Federal Government of aged care services – both in dollar terms and as a proportion of GDP. Chart 3.4 of the Intergenerational Report is reproduced in Figure 2.

Figure 2 **Projected trends in aged care expenditures**



Data source: This is Chart 3.4 of the Intergenerational Report, (Treasury, 2007)

The report notes that these projections already incorporate some adjustment for a shift in the mix between residential care and care in the general community. It is notable that the reason given is based on assumed preferences rather than on a trend towards providing choices that make it feasible to remain in the general community longer – or, indeed, till death.

> "Most older people wish to remain and be cared for in the community for as long as possible. Reflecting current trends and policy, these projections incorporate some change in care mix away from low-level residential care to community care over the medium term." (Treasury, 2007, p 111)

Productivity Commission (2008) provides specific estimates of projected levels of demand for different forms of aged care places, out to 2046-47. These reflect unpublished Treasury estimates and are assumed to be broadly

compatible with the expenditure scenarios documented in Treasury (2007), recognising that these estimates are restricted to persons over 65 years.

Table 1 **Projected persons receiving care and aged care expenditure**

	2006-07	*2016-17*	*2026-27*	*2036-37*	*2046-47*
Number of places/persons	'000	'000	'000	'000	'000
High care residential	108	148	205	303	405
Low care residential	58	60	82	122	162
Total residential	167	208	287	426	567
CACP	31	50	71	100	125
HACC[b]	518	697	976	1251	1448
Australian Government expenditure (share of GDP)	%	%	%	%	%
Residential	0.54	0.68	0.87	1.21	1.53
CACP	0.04	0.06	0.08	0.10	0.12
HACC[b]	0.09	0.12	0.15	0.18	0.20
Other	0.04	0.05	0.06	0.07	0.08
Total	**0.71**	**0.90**	**1.16**	**1.57**	**1.93**

[a] These data relate to the projected demand for aged care and Australian Government expenditure on aged care programs by those persons aged 65 years or older. They are lower than Intergenerational Report (Treasury 2007) published results that include access to aged care programs by persons of all ages. [b] Support for persons aged 70 years or older.

Source: Department of the Treasury, unpublished modelling results (2007).

Data source: The table is Table 3.2 of Productivity Commission, 2008.

The figures in Table 1 are broadly consistent with the earlier picture of ageing trends. In particular, they point to projections of a quadrupling in the number of high care residential places and more than a tripling in the number of low care residential places in the next 40 years.

The Ocean Street proposal is directed squarely at challenging the assumptions underscoring these projections – with a model of retirement village care in which far fewer persons are expected to need to progress to either low or high care facilities.

It is also appropriate to note that these trends take into account the anticipated trend towards increasing financial self-sufficiency over time, as a result of the cumulative impact of retirement income policies. A substantial fall in the *proportion* of aged persons drawing a full pension is anticipated – but the number drawing a full pension is still expected to rise by 67 per cent by 2047.

These developments underpin the strong fiscal pressure implied by the combined trends, with limited scope for shifting the burden back to the ageing population. Costs of services such as Home and Community Care (HACC) are charged increasingly to the service recipient as incomes rise above levels that qualify for a full pension. The same Productivity Commission (2008) report summarised these expected trends in pensions, based on Treasury modelling, and the results are repeated in Table 2 below.

Table 2 **Trends in persons of pension age receiving pensions**

	2007	2017	2027	2037	2047
Number persons receiving:	*million*	*million*	*million*	*million*	*million*
Full pension	1.53	1.86	2.09	2.40	2.57
Part pension	0.69	1.19	1.88	2.45	2.92
Total receiving a pension	2.22	3.06	3.97	4.86	5.49
No pension	0.55	0.78	1.18	1.50	1.69
Total	**2.78**	**3.84**	**5.15**	**6.35**	**7.18**
People receiving full and part pensions (% of total number of pensioners)	%	%	%	%	%
Full pension	68.8	60.9	52.6	49.5	46.8
Part pension	31.2	39.1	47.4	50.5	53.2
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
People receiving pensions and no pensions (% of those of pension age)	%	%	%	%	%
Full pension	55.1	48.5	40.6	37.8	35.8
Part pension	24.9	31.1	36.6	38.6	40.7
No pension	20.0	20.4	22.8	23.6	23.6
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

[a] Includes the age pension and similar payments to veterans and war widows.

Source: Department of the Treasury, unpublished modelling results (2007).

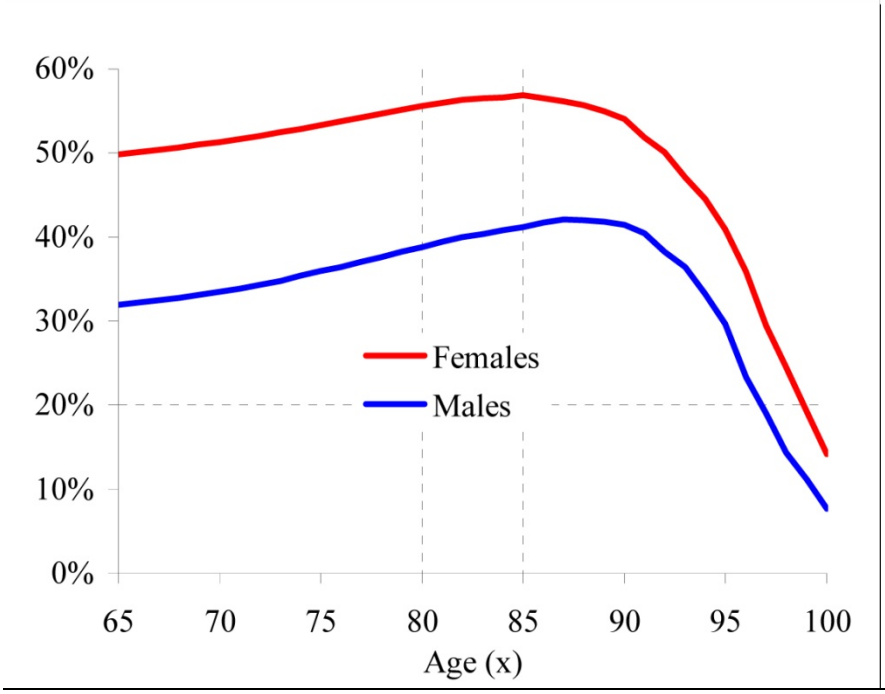
Data source: This is Table 3.5 from Productivity Commission (2008)

3.5 Likelihood of needing residential care

2005 analysis (Cullen, 2005) by the Department of Health and Ageing underpinned estimates of remaining lifetime probability of people ever proceeding to residential care. These analyses are based on 2004-05 aged care data, coupled with 2002-04 Australian life tables – and as such might be seen as approximating outcomes under the processes in place in Australia in the lead-up to 2004-05.

These trends, when combined with the ageing trends outlined earlier, would certainly, if unchecked, result in a dramatic trend into increased demand for residential care. Lowering these curves, at least as they apply to residents of the Ocean Street development (and later implementations of a similar model), is a key objective of the project.

Figure 3 **Remaining lifetime risk of entry to residential care, Australia**



Note: The probabilities relate to individuals, who have never yet (in 2004-05) received residential care, eventually needing care. The rising probabilities between ages 65 and 85 broadly reflects the risk of death before age 85, a risk that declines with increasing age. Approximately 50 per cent of 65 year old women, and 32 per cent of 65 year old mean, will (under the assumptions of this analysis) eventually require residential care, and these figures are reasonably stable out to age 90.

Data source: Cullen (2006)

3.6 Formal carer costs & utilisation

Table 1 above highlighted the anticipated trend in formal community care costs. This is based on Treasury modelling, including some assumptions regarding an increased desire for ageing people to remain in their own accommodation. However, data on the risks of needing to move into residential care are based on a population that is dominated by persons remaining in their traditional homes – that are often poorly configured to manage risks and to deal with serious disability.

The figures do point to the great differential between costs of residential care and costs of formal care away from a residential care facility. It can be inferred from Table 1 that, by 2046-47, Commonwealth costs per person in residential care are forecast to be *2.8 times CACP* costs per person and almost *20 times HACC* costs per person. Corresponding figures for persons in high care residential accommodations would be much greater still. A key proposition in the 'Apartments for Life' model is that it should allow for a dramatic reduction (within its resident population) in the need to use residential care, substituting a mix of lower cost formal care, greater levels of informal care and greater inherent scope for self support through features of the complex design.

The sharp upwards trend in numbers in all forms of care, rising rapidly in proportion to the workforce, must also imply significant workforce pressures in meeting demand. These could add further to cost pressures or result in a decline in standards.

An important issue is the relatively *poor utilisation* of formal care workers , because of the time involved in moving between clients spread over a substantial area. TBS reports that its care workers currently spend 20-25 per cent of their time in travelling between clients. These logistical costs are already built into the cost figures in Table 1, but highlight the potential for reductions in both cost and workforce pressures if a way could be found to increase the ratio of time with clients to time spent on travelling between clients. A key value proposition in the 'Apartments for Life' model is that it does offer a way to tap this potential.

We turn now to the specifics of that proposal.

4 The Ocean St proposal & experience

This section summarises key elements of what is being proposed. It is not intended as a critique of the feasibility of value of what is being proposed – we turn to these matters in a fuller discussion of the economics in Sections 5 and 6. In some cases, contextual material has been provided to allow proposals to be better understood.

4.1 Key aims

TBS has specified as the key aims of the Ocean Street development:

- "Residents are able to stay in the same apartment for the rest of their lives. The stated goal is that 95 percent will never need to face the disruption and cost of moving to a nursing home."
  - We note that this represents a dramatic shift from current community-wide patterns as shown earlier in Figure 3.
    - … The chart suggests that about 40 to 50 per cent of all persons now aged between 65 and 80 who have not yet moved into residential care will, under current models, eventually do so.
  - The proposal is that the number ever proceeding to residential care (from within the complex) would be only about 10-12 per cent of the current community-wide figure.
- "Older people are able to stay living in their familiar community, close to their established networks of friends, family and services.
- "A vibrant new social hub is created; connections between residents and the local community are built and strengthened; contacts with family and friends are promoted; social isolation is reduced.
- "The apartments are affordable by local older people in a range of financial circumstances, reflecting the diversity of the local community."

More generally, these aims align closely with those of Humanitas, both in terms of the desire to dramatically reduce the need to progress to other accommodation and in the emphasis given to the quality of life of the residents as opposed to the cure and care elements – with the latter having the status of means rather than ends. Some of the most recently built Humanitas complexes are being even more aggressive in lowering the need to move into residential care, including via inclusion of facilities suited to management of an even wider group of dementia sufferers than is planned for at Ocean Street.

4.2 Key elements of the proposal

Location

TBS has an existing site on Ocean Street Bondi, in Sydney, running between Ocean to Wellington Streets and incorporating the heritage listed Scarba House. Scarba House provided accommodation and care for children from 1917 to 1986, but that has since become an administrative centre for a range of community based services.. TBS see an important part of the proposed development being "the restoration of Scarba House and its opening up for the use of residents and the local community."

The site is in Sydney's Eastern Suburbs, close to Bondi Beach, a major retail and commercial centre (including extensive health services) in Bondi Junction and with good public transport links to the City and the rest of Sydney – with a train station and major bus interchange at Bondi Junction. There is also a substantial shopping, café and restaurant strip within a short distance of the site, with reasonably level access from the site.

The area is long established, with a significant aged population.

The site could have substantial value, including commercial value, in other uses.

The proposed construction

New construction of (133 apartments and 7 'townhouses') to accommodate about 200 older residents is proposed, incorporating 'Apartments for Life' design principles. Development Application plans were lodged in May 2008 and amended plans were lodged in March 2009. The design incorporates specific features to address the lifecycle needs of residents:

- Self-contained apartments, with balconies or courtyards.
- Meeting areas and balconies on each floor for catching up with neighbours and friends, or just 'watching the world go by'.
- No steps and stairs and wider than normal doors and hallways, for people who use walking frames or wheelchairs.
- Bathrooms designed to be safe for people who are unsteady on their feet or who have disabilities.
- Kitchens designed to take into account common health problems such as arthritis. Switches and plugs within easy reach.
- Enough space so that a family member or friend can stay overnight.
- Built in safety features, including lifts which can be used in the event of a fire, up to the highest modern standards.

- Technological advances to make life easier for residents and to enable them to get help quickly, such as personal alarm systems.
- Provision for installation of non-intrusive ways of monitoring residents' health and wellbeing, for example, sensors to alert staff if a person has fallen and is not able to get up.
- Though we return to this later under 'Community amenities', it is worth noting that construction is to include a purpose-built dementia day centre, to allow for retention and support for most residents who develop dementia, including both care for sufferers and relief for carers.

These can be seen as involving a mix of:

- technical 'capabilities', anticipating plausible future demands; and
- functional capabilities that will facilitate social interaction and lifestyle choices, and formal and informal carer support *in situ*.

The technical capabilities involve features that

- *directly enable people to continue to carry out the activities of daily life despite some disability* – such as doorways that are wide enough for wheelchairs; and
- that *reduce risks of harm* – such as design features to reduce the risk of falls or burns in frail people and that may support earlier return from hospital and/or lessen demands for home support services because of the improved capacity to effectively undertake tasks safely.

Both classes are relevant to the ability of the complex to support retaining a higher proportion of residents throughout their lives. Risks of harm rising to an 'unacceptable level' constitute a key reason for people now moving into higher care facilities.

There is little in the way of 'rocket science' in the individual components here – rather the systematic application of common sense and known planning principles with an eye to extending suitability across the entire aged community. Indeed, apart from a small cost premium (discussed in Section 5.2) in construction, there is virtually no compromise implied for younger and fitter users of the facilities, while the planned features will add greatly to the capability of the complex to continue to meet resident needs as they age and as some forms of disability develop.

Of course, the location does add significantly to costs via land values – presumably reflecting general market assessments of the value in living in the proposed area relative to an outer suburb. For established, now ageing, residents of the immediate area, these advantages could well be judged greater than the average. Fundamentally though, this land cost can and should be viewed as involving the purchase of additional desirable features for the development, based on an established market value for these features.

Commercial basis for moving to the complex

Apartments are to be built to high standards in a desirable part of Sydney. Most units will be made available under a 'loan and licence' arrangement, at prices broadly reflective of the prices of quality apartments in what is a sought-after part of Sydney – reflecting the quality of construction, the desirability of location and the special features incorporated into the design and proposed operation.

The loan and licence arrangement is very common in the sector, especially for charities seeking continuity of operation to meet their objectives over time. There would be a departure fee as a deduction from the loan sum on departure. Capital gains would, again as is common, be shared between the resident that paid full price and TBS.

Affordable housing quota

Approximately 40 per cent of the apartments are to be made available on a subsidised basis:

- 30 per cent of the apartments would be offered at a discounted entry prices;
- A further 10 per cent would be made available as rental housing for disadvantaged older people with no assets , with rents proposed to be set at public housing rental rates – currently $268/fortnight for a single person and $342/fortnight for a couple.

This commitment to subsidised housing – indicatively at a cost to TBS, mainly front-end loaded, of the order of 25 per cent of project costs, not including any allocation of the associated land costs – is not fundamental to the concept, though it does offer useful synergies with the 'mutual care' philosophy underpinning the development. Affordable housing might not be provided in the same form or on the same scale by future developments based on the 'Apartments for Life' concept.

However, the provision of affordable housing reflects core business for TBS and TBS perceptions of value in encouraging a mixed community drawn from the older people in the area, that may in turn help support the model of community-based care within the complex. Furthermore, TBS has made the explicit judgment that it sees it as being cost effective to pursue some of its affordable housing agenda via the synergies offered by this development. This flags the potential for other developments of this broad type to offer opportunities to other groups and governments to deliver more cost effective or better affordable housing outcomes.

It is also appropriate to recognise that the same ageing trends discussed in Section 3 above will also, over the next few decades, exhibit in a parallel trend in the age composition of people needing affordable housing, while the character of the current stock of affordable housing will, without significant new investment, move increasingly out of line with the age and family structure profile of this group. This raises possibilities for further synergies between aged care and housing investment in the future. We return to these points below (Section 6).

Community amenities

We understand that approximately $5m would be allocated to the provision of community amenities – serving the community of residents but also a wider local community. This investment would include the refurbishment of Scarba House. Importantly it will extend to the provision of valuable infrastructure to allow cost effective delivery of a range of health and care services within the complex. Proposed amenities include:

- "Rooms of various sizes for flexible use; for example, for local club meetings, craft groups, social activities, fitness classes, adult learning etc.
- "A café offering meals, a child-friendly area and basic supplies for people with limited mobility.
- "A day centre where people with dementia can go for the day, be looked after by trained staff and give their family members a much-needed break.
- "A men's shed or workshop where older men can spend time with others and work on their own or community projects.
- "Consulting rooms for health professionals, e.g. doctor, podiatrist, diabetes nurse.
- "A program of social and recreational activities, some involving local schools."
- The grounds would be landscaped and half the site area would be publicly accessible open space.
- There would also be continuation of the current arrangement where parking 'hubs' are provided on site for a commercial car pooling company (Go Get) that will, under the proposals, provide convenient access to shared cars for residents (as well as others in the area), without the need, cost and possible stress of full ownership.
  - Underground car parking would be provided for residents and for visitors.

Services & care

A key feature of the proposal lies in the approach planned for providing care to residents as and when needed – ranging from minimal care through to the

level of access to care that would normally only be possible in a hostel or nursing home.

- TBS are proposing that there be a site-based *care advisor* as a central point of contact for all residents, able to advise on and arrange care from local care agencies but also from volunteers, and with services that include:
  - negotiation with health and care services on residents' behalf
  - discussing with residents' families about how they might help more, if appropriate
  - arranging for volunteers to visit isolated residents
  - helping organise transport, e.g. for people to go on an outing or to see a specialist.
- At least one TBS staff person would be available on-site 24 hours a day.
- TBS is proposing a community worker to be available to develop community activities on and around the site and link residents to the local community activities.
- TBS is proposing that the staff costs of providing these services not be fully recovered through regular levies – with the differential being treated as a subsidy by TBS.
  - However, it seems highly likely that the 'market;' will value access to these services and the fact that they will not constitute a regular levy cost, resulting in an increase in the willingness to pay for access to the complex – the benefits would tend to be capitalised.
  - This suggests that at least some of these costs will be progressively recoverable via greater ease in placing the apartments initially and then through capital gains as the apartments change hands (recognising that the value of these gains will be shared).

TBS has argued that this type of structure will create significant opportunities for more efficient coordination of use of care workers – with an opportunity to substantially reduce the time taken in travelling between clients, and hence an opportunity to obtain greater utilisation of skilled carer workers. Conceptually, this suggests scope for cost reduction and possibly also for addressing a possible looming *problem of workforce constraints on the availability of skilled care workers.*

The potential for the same structures to coordinate voluntary care services within the group of residents and local community might add substantially to the potential in these two areas. The concept of mutual caring, based on needs and capacity, is being promoted by TBS as a core part of its concept.

Future proofing of building stock

The trends set out above are forecasts that embody high levels of uncertainty. Social, demographic and economic projections over 40 or more years are necessarily speculative.

A cumulative consequence of the building and wider complex design features is that the development should embody far greater flexibility to adapt, not just to changing demands of individual ageing residents, but also to adapt or be adapted to different use patterns in the future should aggregate demand patterns shift.

This reflects a wider international trend towards planning *building for the flexibility to change function* in cost effective ways over time, reducing the risks of needing early demolition with associated costs, loss of embedded greenhouse gases etc. There are analogies here with the wider international development of principles of 'universal design', as promoted by organisations such as the Australian Network for Universal Housing Design[1], the Disability Council of NSW[2] and the Queensland Department of Housing through its Smart Housing initiative[3].

The primary focus of the design for flexibility has been to create the flexibility to handle changing demands and capabilities of individual residents in smart ways suited to a wide range of circumstances. However, the entire development should embody a wider form of flexibility to deal with changing demographic trends, community demands in respect of accommodation and other building uses etc – and supporting greater sustainability. This would seem essentially a 'spillover' benefit of designing for flexibility and shared patterns of use. Comparisons can be drawn with the difficulties in 'recycling' traditional nursing homes.

4.3 Key value propositions

The above discussion clearly recognises a range of ways in which the Ocean Street development could, plausibly, deliver value to the community. The soundness of the proposal depends heavily on the confidence that can be attached to these value propositions, the confidence with which it can be asserted that benefits are likely to exceed costs – and the quality of the risk management processes used to deal with the inevitable uncertainties. These

1 http://www.anuhd.org/

2 http://www.disabilitycouncil.nsw.gov.au/portfolios/uhd/index.html

3 http://www.build.qld.gov.au/smart_housing/publications/ud_booklet/index.asp

matters are dealt with in Sections 5 and 6, but it is useful to summarise the key value propositions here:

- Modest up-front investment in the physical aspects of the complex design can deliver *substantial flexibility* to allow the complex to continue to meet the demands of ageing residents, including many of those with increasing disability.
  - This flexibility should, in some cases, make it feasible for people to remain in their accommodation when, under other facility designs, this would not be feasible or would be considered too risky.
  - In other cases, the investment in up-front flexibility might greatly reduce the costs of later retrofit of features to the complex in order to allow a resident to remain.
  - Given current relatively high propensities for elderly people to eventually move into a higher care facility, the potential for value from such retention – including costs in higher care contexts avoided, the costs and stress of moving avoided and preferred lifestyle – could be substantial.
- Location of a complex at a site with a *diverse, established population* that is *close to major medical services and retail and entertainment facilities*, affords older, established members of that area, looking for retirement housing, options typically not provided by existing patterns of retirement living investments. There are few retirement villages in inner city locations and most new investment is occurring closer to the fringes of the city, with residents having moved from much further away from the area to which they are linked. While the proposed location may entail higher land costs, these may be fully or partially offset by a range of advantages that may both lower other financial costs and raise quality of life for residents:
  - Support for residents maintaining established networks of friends and service providers, while avoiding substantial time and money costs in travel.
  - Increased scope for having family members living nearby – with benefits of increased social contact and enhanced opportunities for provision of informal care, potentially reducing the need for and cost of formal care and reducing the likelihood of needing to move into residential and/or hospitalised care later.
    - … Even where a move to higher care is later needed, the proposed support levels and design features should in many cases allow delay in making the move and, in the case of hospitalisation, should support shorter average stays in hospital.
    - … Other family need not live nearby in all cases, but the propensity for having family nearby is improved substantially by the likely tendency to draw a significant proportion of residents from nearby.

Being a new inner city complex, it also offers scope for some older people to move into an area where they have established family.

  - Quite fundamental integration of the complex into the local community, via facilities to be accessed by the wider community as well as residents and the historical connections of the site itself, and of Scarba House in particular.

- Key aspects of the physical design and proposed operation of the complex are expected to encourage a strong community spirit across residents of diverse ages and levels of need.
  - A key part of the Humanitas model is its tapping into this resident community to expand the access to informal care and social support within the residential community – as well, of course, as tapping into the wider community and family as indicated in the last point.
  - The on-staff care advisor and community worker would have a key role to play in encouraging and providing support for this expanded form of informal care.
  - Again, this points to opportunities to limit the demand for and costs of formal care – and in relation to aspects of care to provide a possibly more socially attractive model for care provision.
- The same physical, locational and community features that will allow people to remain in the complex when they would otherwise have had to move, will act to *reduce significant risks to residents* with developing disabilities:
  - Many of the features of the design could substantially lower risks of falls, of burns etc.
  - The easier and cheaper implementation of within-apartment monitoring will reduce risks of some residents remaining in such accommodation.
  - The easier access to informal care could substantially lower the pressures to do things that entail risks. The scope for avoiding, or at least deferring, significant associated health system costs could be very substantial.
- The on-site care advisor could play – and the intention is will play – a key role in securing significant logistical benefits, through coordination of care needs across residents:
  - Care workers currently spend a lot of time travelling between clients (TBS estimate that its care workers spend about 20-25 per cent of their time travelling between clients), significantly reducing effective utilisation of their time.
  - The ageing population trends are likely to place growing pressures on workforce availability to deliver support services, while containing costs within the levels that have been assumed in modelling budgetary impacts.

  - The scope for coordination of care worker requirements across the aggregate demands within the Ocean Street site – recognising the planned intention that it progress to having a significantly higher proportion of over 80 year old residents, and probably of residents with dementia and other disabling illnesses, than would most retirement complexes – offers an opportunity for productivity improvement in the delivery of these services, that could offer significant cost savings.
    - … The same approach may also allow improved continuity of access to the same care worker – with benefits for residents because of the better understanding of resident needs and the development of a care worker-client relationship.
- Significant benefits are also anticipated for informal carers such as family members because of the likelihood that the complex will substantially lower the average distance these carers live from the person they are caring for (even recognising that this need not be true for all informal carers). These benefits could include:
  - improved scope for maintaining other employment;
  - peace of mind because of scope for faster response;
  - better family relationships;
  - reduced stress.
- By improving the attractiveness of the choice to move out of the established family home and into one of the proposed apartments, and as a result of the TBS's commitment to a substantial affordable housing contribution, the development could help to address a range of parallel developments and pressures in relation to housing, including as a result of the ageing trends.
  - There is a clearly recognised shortage of affordable housing, with the Federal Government having committed $623m for immediate investment to help address the problem and with a stated willingness to contribute more as needed.
  - The ageing trends has implications for the best mix of housing across accommodation for older people, both full cost and affordable, and extending through to accommodation suited to younger people and families. This is likely to be particularly true in inner city areas where the scope for adding to the stock is constrained. Developments of the type envisaged could play a useful role in both expanding the stock and assisting to deliver a mix of housing types better suited to future demographic patterns.
  - Without this increased attraction to moving out of established housing, the increased life expectancies of older people trying to stay in their family homes could be expected to lower turnover of these homes in inner city settings, adding to problems of affordability of homes suited to families for younger people and families.

- With the ageing of the population, there is also a trend to a higher proportion of people seeking affordable housing being older, such that the mix of available affordable housing is likely to become increasingly poorly aligned with these changing demographics.

4.4 'Selection bias' prospects and implications

A key, though certainly not the sole, driver of value is the anticipated sharp reduction in the proportion of residents entering the complex who will eventually need to move to a higher care facility. This has quality of life implications for the residents and their families and would imply substantial cost reductions for governments and residents.

Some care is needed here of course. If the dramatic reduction in numbers proceeding to higher care is enabled largely by the complex attracting individuals with low risk profiles, then the gains to governments and the individuals could be largely illusory, at least initially.

Certainly such a 'selection bias' is not planned or expected. The reasons why it may be possible to remain in this complex where it would not be possible, or would be judged too risky, in other complexes were documented above. The design, the inherent risk reduction, the incorporation of greater care coordination, the provision of an on-site dementia day centre etc all point to scope for truly altering the risks from an individual perspective.

We have also probed the nature of inquiries received by TBS, expressing interest in possibly moving into the complex when built. There has already been a substantial number of inquiries and expressions of interest. These appear to span the range – from healthy older people interested in 'insurance' against needing to move again, to individuals with chronic illnesses, such as multiple sclerosis, who see the complex as offering a capacity for independent living that would not be possible for as long in other complexes. In any case, the potential for forecasting health when very old based on health at around age 70 is fairly limited.

It would be impossible to predict with precision the net effect that the initial selection of residents will have on the numbers of residents needing to move to higher care. This will rely very heavily on the success of the design and management attributes of the complex and the final pattern of demand is not yet known with precision. There will be incentives amongst prospective residents that operate in both directions and any effect seems likely to be modest in relation to effect of these design features, with the latter being the basis for TBS expectations of demand for higher care being reduced to about 5 per cent.

What is the target 'market'?

The development could look to attract residents from two main sources:

- People already considering moving to a retirement complex and who might find an Ocean Street apartment more than competitive with other complexes, after allowing for the special features offered.
  - The nature of the model is likely to favour people already living in the region, but considering moving out of the region to a retirement village.
  - As discussed above, it may be particularly attractive to people with some form of disability or emerging chronic condition, but may also appeal to healthy people wanting to 'insure' their capacity to not have to move again.
- People who are assuming they will remain in their existing housing – typically the 'family home' – as long as possible but who might be attracted to rethink this strategy given the location, quality and the prospects for lowering the risk that they will be forced to move to a higher care facility.

TBS expect the second of these groups to be a major 'market' for the complex – reinforcing the perceived role of the complex in helping to free local housing for others. We note that Productivity Commission (2008) suggests that only 4.5% of persons over 65 were living in accommodation for retired and aged people, while 88.9 per cent were living in private dwellings. This is despite the fact that 31 per cent were considered in need of assistance with private activities.

If TBS are correct in this – and it seems highly plausible given the special features of the proposal, then it has significant implications in several respects:

- It tends to suggest that the proposed development is less an alternative to another retirement village elsewhere in Sydney, and more an alternative to additional residential housing development in Sydney, probably pitched at younger people and families.
  - The complex will increase the proportion of older people in purpose built accommodation for older people, will allow others to move into the traditional accommodation freed as a result and will require less investment in alternative accommodation for this latter group, reinforcing the related point made in Section 4.3.
  - To the extent that the residents would otherwise try to stay in their own homes, the reduction in injury risks as a result of the design features in the proposed development are likely to be even greater than the reduction between an alternative retirement village and the proposed one – and more in line with indications from community average injury rates for older people. We consider these matters further in Appendix A.2.

5 The 'economics' of Ocean St

5.1 Preliminary observations & structure

The value propositions are intuitively appealing and suggest prospects for wide-ranging benefits from the adoption of the proposed approach – including reduced demand for high cost aged care facilities, better support for the preferences of the ageing population for being able to retain their independence in proximity to established family, social and service provision networks and expanded availability of affordable housing geared around the affordable housing needs of an ageing population.

The targeted reduction in the proportion of people needing to progress to higher care facilities is big; effective realisation of this objective, if it can be achieved without a major increase in the costs of community care within the complex, would imply very large cost savings for the community. Specific measures are in place to help contain the costs of accessing community care.

Against this background, the prospects for the benefits of the proposed development exceeding the costs appear strong – but clearly require closer scrutiny. In doing this, it is important to recognise the two distinct strands of benefit creation being offered here – with the costs of the proposal needing justification relative to the *aggregate benefits across these two strands*:

- *The Ocean Street development, viewed as retirement and affordable housing in its own right*, will offer benefits to the residents and their families and may well allow for cost savings to the wider community as a result of the higher rates of retention (avoiding/deferring the higher costs of other forms of care), greater efficiencies in the delivery of formal care (due to improved logistics and reduced demands as a result of greater informal care); limitation of costs elsewhere as a result of the provision of affordable housing and possible freeing of additional family-oriented housing in the area; etc.
- The development can also be viewed as an investment in research and demonstration of a model for housing for the aged that shows good prospects for being competitive as part of the long term response to the ageing population, and that could in any case be beneficially adopted in relation to other new residential village investments or, at least in part, in major upgrades of some existing facilities.

The first offers fairly immediate and tangible results – and is the subject of the discussion in this Section of the report. The second could be viewed as delivering to the community options for extension of the benefits across a large and rapidly growing application base, while also assisting with the fine tuning of the model to deal better with Australian conditions.

Clearly if the model proves sound and competitive, then potential benefits from this second source could be very large. Importantly, the assessment of risks and opportunities to extend the model is likely to be able to be based on rapidly improving information, as the Ocean Street development is completed, as residents move in with an expressed willingness to pay for accommodation within this type of complex and then, over time, as the success of the model in delivering on its longer term objectives is demonstrated.

In a sense, the Ocean Street development could be seen as offering the community insurance against the risks of unnecessary delay in tapping into this value, while also providing insurance against the risks of rushing in till the model has been better demonstrated. In effect, the Ocean Street project provides underwriting of these risks while providing better access to the potential benefits.

5.2 What about the costs?

Of course, the economics of the project are as much about costs as benefits. TBS could accommodate as many aged residents, and deliver as much affordable housing, for less if it were to choose to invest in a more traditional village in a lower cost outer area of Sydney. There are real *incremental costs* in choosing to implement the 'Apartments for Life' model in inner Sydney. The key question is – are these extra costs going to be justified by the extra benefits delivered?

A secondary, but still very important, question is whether enough of the benefits will be able to be 'captured' by those making the investment to justify the additional costs. In the case of TBS, capture of benefits might be mainly about perceptions of how much better the outcomes are. In the case of extension of the model more broadly, there are likely to be questions of whether investors can 'sell' enough of the extra value delivered – to residents and/or governments – to justify the higher establishment costs.

It is not out of the question for there to be benefits in excess of costs but inadequate return to the primary investors – as a result of failure in either or both of the market and regulation – to allow the model to gain traction. These questions are more central to the discussion in Section 6. However, it is important that, even in looking specifically at the Ocean Street development, the way that costs and benefits would be distributed across stakeholders be tracked as this may assist in improving the design and implementation of the model.

Capital/up-front costs

The most obvious set of extra costs are the extra up-front capital costs involved in setting up this type of complex in its Bondi location. Reflecting the earlier discussion, these are principally:

- The higher capital cost, and associated opportunity cost, of land – as a result of both higher land prices and the additional demands for land for special facilities and resident and community amenity.
  - Working with an indicative value for the site of $12m, the extra cost of land compared to a more traditional development in an outer location is likely to be of the order of $7m or more. Clearly other implementations of the 'Apartment for Life' concept could consider trade-offs between site features and costs.
  - As was noted in Section 4.3 above, this needs to be viewed as the purchase of a set of *locational advantages*, at a *market determined price*.
- The cost of the community amenities, noting that many existing villages incorporate significant community amenities, but that there is a difference in the scale of amenities (dementia centre, professional suites etc) and that there are special costs that flow from the decision to work within the requirement to refurbish a heritage building at substantial upgrade cost.
  - An indicative capital cost attached to these community amenities is $5m.
- The added costs of incorporating flexible design features into apartments and the approaches to the apartments.
  - TBS has advised a likely cost of about $10,000 per apartment – or a site cost of the order of $1.5m across the 133 apartments and 7 townhouses.
- The other major 'cost' item, depending on how it is viewed, is the provision for affordable housing. Arguably this is not really a capital cost in terms of the creation of the physical infrastructure, but instead reflects a decision to subsidise the pricing of a proportion of the units.
  - Either way, of course, it can feed into a higher up-front cost to the provider, *if* the subsidy is borne by the provider, but the cost is really a transfer payment – in this case from a charitable organisation to a targeted group.
  - The decision to provide the affordable housing is a *choice* available to TBS as developer of the site – presumably some or all of the apartments targeted as affordable housing could be provided to the market on the same basis as the other apartments (with a possible impact on the 'market clearing' price as a result of the greater supply).
  - Any decision to provide affordable housing would reflect some judgment that the benefits of doing so exceed the costs.

… In this case, the benefits would be: the value TBS, as a charity, attaches to this provision of high quality affordable housing, inclusive of the lifetime benefits to these residents; *plus* any spin-off benefits attached to the more diverse resident community and possibly enhanced opportunities for developing the caring culture that would support delivery of services across the complex.

– That said, the value of this subsidy is substantial and will have a significant impact on the effective costs of the project from a developer perspective. The value of this subsidy has been assessed at about a quarter of the development cost.

Operating costs

The apartment design features should not entail any significant increase in resident operating costs – once in place, the special features – that relate to such matters as bench heights, door widths, location of power points, provision of level access etc – should be no more costly to maintain than their 'normal' counterparts.

The extra services provided will, to a significant extent, operate on a commercial basis and should be largely self-funding. The function of the up-front capital investment, including professional suites etc, is to encourage location of services in ways that will benefit residents and offer potential savings to service providers. Indeed, with population ageing and growing numbers of aged residents in the area, new facilities will in any case be needed nearby and there should be significant scope for obtaining a commercial return on capital in providing such facilities.

The close proximity of the complex to the Bondi Road commercial strip, with a range of professional suites already operating, adds to the strength of this argument. The particular location affords significant management of risks – and effectively scope for sharing overhead costs across a wider customer base. The development will further concentrate numbers of aged residents in the immediate vicinity of these facilities, supporting strengthened demand for these services.

Of course the facilities will need to be managed, but should not in themselves entail a significant net cost increment, once established. Again, TBS may choose to provide facilities to groups on a subsidised basis – but this will again be a choice based on an assessment of benefits in excess of costs.

Costs of a changing age profile at the complex

A stated aim of the development and of the 'Apartments for Life' model is retention of most residents for the rest of their lives – in contrast to the earlier indications of a community-wide demand for movement into higher care

facilities of around 40 per cent. The objective is worthy, but it does have implications for:

- The age profile of residents, with the likelihood that it will progressively evolve, as a result of the greater retention, to include a higher proportion of older people relative to more traditional retirement villages.
  - Even if the initial intake is broadly the same, over the following 10-15 years the profile will move out of line with other retirement villages – as a consequence of success in the primary objective.
  - Reflecting this shift in age profile, the average levels of demand for formal and informal care of the residents can be expected to rise over time, eventually stabilising at a higher level – and these will bring with them rising costs of care packages, though presumably much less than would be the costs from transfer to a higher care facility.
- A consequence of this very trend will be a slowing in the rate of departure of residents from the complex, with associated timing of departure payments.
  - This has implications for longer term cash flows and these could be significant. To the extent that the payments are linked to duration of stay, the effects are mainly of a timing nature. These are essentially revenue effects and are discussed further in Section 5.3 below.

There are complex links through to costs of medical treatment. The trend to an older age profile will result in heightened health management costs, though probably no more so than if the people involved had moved to higher care accommodation. The structured access to informal and formal care may actually allow these costs to be better contained. The costs of direct medical care are a real cost to the community but not a cost attributable to the complex. Exactly the same issue would arise with people choosing to remain in their family homes, and not move to a retirement village – only the risks of needing medical care would be higher because of the lack of the risk reduction features built into the Ocean Street proposal.

As was recognised earlier, ageing is associated with greater risks of and from accidents – notably falls and burns. These constitute one significant reason why people are eventually forced to move into higher care facilities. Nominally, the design aspects of the Ocean Street development will lower these risks substantially – delivering benefits in the form of reduced medical costs. In practice, the extent of these reductions in medical costs may be attenuated by the fact that the lowering of the risks will allow people to stay at the complex longer, and this *may* in effect result in some offsetting increase in risks of falls and burns compared to moving to a higher care facility. The overall risk reduction could be reduced somewhat by this effect – as a result of a *rational decision* to incur some higher risk in return for the benefits of greater independence etc.

Provided that this is an informed choice, it is likely to imply net gains, at least for the residents. Everyone lives with avoidable risks – not leaving the house would allow the risks of motor vehicle accidents and a range of infections to be lowered – but if then risks are acceptable and the benefits that flow from accepting the risks are high enough, we choose an acceptable level of risk. The same is likely to be true here. Lowering the absolute level of risk allows a different balance to be struck by residents.

5.3 Revenue effects

The proposed development has a range of revenue implications:

- The location and the high standards proposed for the development should, in their own right, support a high willingness to pay for access to the Complex. This willingness to pay will almost certainly be further supported by the value prospective residents attach to the flexible design features (with associated prospects for being able to remain in the complex) and to the general amenities to be provided.
  - Non-subsidised apartments are to be listed at market prices. The Society expects the prices to be nominally sufficient to cover the planned development costs, the opportunity value of the land and the cost of the community amenities.
  - If (as seems highly likely based on current indications of interest and even willingness to commit) these price expectations can be realised, the project would appear to be commercial – apart from the implied costs of the affordable housing. Even with the affordable housing, the project could well be commercial if there were a willing 'buyer' for some or all of the affordable housing services. In the Ocean Street case, that buyer is effectively TBS – though it could, for other projects, be other charitable groups and/or governments – and TBS is choosing to forgo a commercial return.
- Many of the community amenities will be suited to payment of commercial rentals – notably the café, the professional suites and even the dementia day centre , depending on the model adopted to provide these services to residents and the local community. Any choice to subsidise (with associated implications for either or both of costs to TBS and resident levies) would presumably be based on the conclusion that the benefits to residents will exceed the costs.
- Recurrent charges will be levied – as in other villages, and analogous to general apartment complexes – to recover general overheads incurred in the operation and maintenance of the building. There are expected to be comparable to apartments in the area.
  - We understand that TBS does not propose fully recovering the higher than average staff costs associated with provision of a care advisor etc, viewing this as part of its subsidy. In practice, this decision is likely to

be capitalised into the value of the apartments on turnover (to the benefit of those departing from the complex and of TBS as owner) and will probably have some effect on the immediate demand and willingness to pay the proposed prices for the loan/licences.

- Like most retirement villages, it is intended that deferred management fees be payable on departure.
  - The lower planned turnover rates will have a significant impact in delaying the derivation of these revenues, until the stable but older long term population structure is reached. However, given that interest is payable on these deferrals, they do offer a sound long-term revenue stream alongside of greater flexibility to manage residents' capacities to pay in the shorter term.

5.4 Costs and benefits outside the project

The above assessment points to the distinct possibility – subject to demand and willingness to pay being confirmed (and this is discussed further below in Sections 5.6 and 6) that a project of this type could be self funding – with the possible exception of the level of commitment to affordable housing. A significant affordable housing component, on the scale planned by TBS, would probably only arise through a subsidy from governments and or a willingness to contribute from a major charity.

Clearly TBS has concluded that the affordable housing subsidy is justified within its charter and financial capacity – that the benefits purchased will justify the costs. As was noted earlier, they also see scope for it adding to the success of the model itself, delivering benefits for all residents.

The assessment that the model could stack up commercially does not, of course, mean that it is set to replace current retirement village concepts. What is proposed is a higher cost model with the higher up-front costs largely recovered from the beginning via the selection of residents willing to pay a substantial premium for the attributes offered. This suggests the model will have a role to play as part of the total solution – but only as a part.

Nonetheless, a key question needing to be addressed is that of how big a part should be played. Focusing solely on benefits to the residents and the developer could lead to significant distortion here, because of the substantial benefits likely to fall to other parties – and notably to governments in the form of lower forward costs in a context where those forward costs are escalating rapidly. A sound cost benefit assessment needs to consider these benefits (and any offsetting costs) and to factor this into an assessment of whether there are likely to be market or regulatory failures that could limit the value of the model. From such an assessment, it is possible to address appropriate strategy in a more balanced way.

However, an overriding attraction with the concept lies in the potential implications for costs – and likely strong upwards trends in costs – that, under current arrangements would mainly fall outside of the complex itself. Key considerations here include:

- Reduced demands for ageing residents to move into higher care accommodation, typically involving substantial Federal Government contribution.
- Higher levels of informal (family, friends and resident community) care for residents, lowering the demands for formal community care, entailing significant costs for the Federal Government.
- Substantially improved formal care logistics, increasing effective utilisation of skilled care workers and lowering travel costs.
- Reduced resident risks due to the flexible design features, lowering health sector costs associated with falls, burns etc.
- Consolidation of a substantial number of local residents out of larger and less appropriate housing into the complex, freeing local properties for use by younger families etc – and taking some pressure off local housing access costs.
  - This of course only works to the extent that people move to this complex, because of its location and features, rather than remaining in their current housing in the area, but for at least a proportion or residents the complex is likely to support just such a move.
- Reduced travel requirements between aged residents and family and friends, relative to that that would flow from moving to a more remote village, with implications for vehicle use, emissions, congestion and some road accidents with consequential health and other costs.
- The value of the addition to the stock of affordable housing provided, with direct consequences for State and Federal housing costs, as well as the benefits to the community seeking other forms of housing freed by the development.
  - The fact that the new units will also help to reshape the mix of housing to better reflect the changing demographics amongst the wider population should add further to the value to governments and the wider community here.
- The community amenities – public access spaces and the cluster of professional services, including the dementia day centre – will all deliver value to the community and reduce pressure for costs to be incurred elsewhere.

5.5 Cost savings to governments

Success in delivering the planned reduction in need for residential aged care would, quite robustly, clearly imply significant cost savings for governments.

Turning the effect into a precise dollar figure is not straightforward, because of issues of selection bias in the remaining 5% who would need residential care. However, an indicator figure can be derived from available data. We have not attempted any sophisticated demographic modelling – which would in any case be vulnerable to the necessary weakness of its input assumptions at this stage in the development of the proposal – but instead have focused on a stylized representation of the key opportunities being pursued by TBS.

We have not attempted to estimate the value of all forms of cost savings. However, Appendix A does attempt indicative quantification of some of the important effects. These have generally been expressed on the basis of a present value of cost savings over 45 years, using a real (inflation adjusted) discount rate of 7 per cent, as an indicator of normal government rates for evaluation of infrastructure projects, and at a lower rate of 3% to indicate the effect of using a lower 'social rate'.

- The planned substantial reduction in likelihood of residents needing to ever move to residential care, and the high likelihood that even those who do move will be able to do so later, suggests cost savings to the Federal Government of the order of $9m at 7 per cent and $19m at 3 per cent.
- An indicator of the cost savings as a result of fewer injuries was obtained, based solely on falls that were assumed to be reduced by 50 per cent, is about $1.7m at a 7 per cent discount rate and $4.1 million at a 3 per cent rate.
  - Extension to other injuries and especially recognition of the scope for reduced use of hospitalisation because of limits on in-residence care, suggests overall savings could be substantially more than this.
- Savings in the logistical costs for the Federal Government of delivering community care were estimated to be of the order of $1.6m at 7 per cent discount and $2.7m at a 3 per cent discount, and substantially more if the contributions from state and local governments and community organisations are also factored in.
- The proposed provision of 53 apartments as affordable housing, at a substantial discount and at a nominal cost of $16m is likely to allow governments to avoid the alternative costs of such housing of the order of perhaps $8m (without the quality and wider access to facilities that is being offered here).

These are only conservative indicators of potential cost savings. However, they do add to savings of the order of $20m at a 7 per cent discount rate, or $33m at a 3 per cent discount rate, with significant potential for the savings being substantially greater than this. For reference, the simple undiscounted dollar value of the savings (at current dollar values) over the 45 year time period of the modelling would be conservatively $60m.

This potential for savings from a single development of this type would be impressive if these were the actual savings – and could point to the potential for large savings from a progressive rollout of a number of such facilities. For a range of reasons already flagged, these figures are likely to seriously underestimate true budgetary benefits for governments. It is important in weighing this number not to discount the social and political benefits associated with delivering more attractive options to the ageing population, with the wider spread of benefits to residents, informal carers and the wider community.

5.6 Financial modelling

We have viewed the financial model developed for the project (undertaken by advisors outside of TBS). We have not formally audited the model, but it appears to have been done thoroughly.

That modelling suggests that, after writing off the value of the land injected into the project, the project is likely, at the end of 25 years, to have moved into cash surplus. This could support the project being financially viable over its life, once the up-front subsidies are treated as 'sunk' – but this is not the same as saying it offers a commercial return. The figures suggest that a level of charitable intent, such as is being offered by TBS, is needed to make the project, in its current form – with the donation of land, the incorporation of affordable housing and the planned pricing – add up as an investment 'worth funding'.

The economics of the project could improve substantially if demand for the apartments rises strongly on the back of better community understanding of the value of what is being offered. As apartments start to turn over, the potential for the market demonstrating value well in excess of the initial pricing could be substantial. The whole project rests on the proposition that a higher cost development – with higher land costs, higher fit out costs and higher support costs – will deliver more than matching value. To the extent that these higher costs are not fully reflected in levies etc, there seems scope for capitalisation of the 'surplus' benefits, and TBS, as owners, would in time gain access to half this extra capital.

For the present, however, it needs to be recognised that the project does entail some risks – especially in relation to the initial demand for the units – and this strengthens our view that the project is probably not fully commercial. Fully commercial investors would require a return to cover the risk taking as well as recoup expected costs. Again, TBS has dealt with this by including explicit subsidies from TBS, in line with TBS's perceived purpose and objectives. TBS is operating as a buyer of services as well as an investor in the bricks and

mortar aspects of the project. Not all potential developers would bring this same perspective.

The gap between modelled performance and required rate of return has certainly been bridged by the value TBS attaches to the outcomes it sees from the project – including private benefits to residents and the demonstration value of the project. This is shown by TBS's willingness to fund the project. If, as expected, the major assumptions in the financial modelling are broadly borne out, then the gap could also be bridged through modest variation in the level of affordable housing and/or the level of discount, or through some clawing back in the costs of investment in community facilities.

The modelling certainly suggests that there are adaptations of the model that could prove commercially attractive, without any subsidies – though probably at the sacrifice of some of the benefits, including some of the external benefits to governments. It also strongly suggests there may be scope for developing commercial models that include sale of services, such as of affordable housing to governments or others, as well as delivering commercially marketed accommodation. This 'multiproduct' view of the opportunities offered by the model is probably the most powerful way of investigating their value.

Another point worth making is that it is far from inconceivable that the willingness to pay for entry to the apartments might well be significantly in excess of the planned pricing. There are growing indications that the project may end up being over-subscribed. In terms of implications for future developments, such an outcome would strongly suggest that a project could be configured with a substantially stronger financial basis. Given the unique features of the complex designs, it seems likely that there will be an early mover advantage in tapping into this demand. As more such facilities are built, within reasonable distance of each other, competitive limits may emerge, constraining prices below the levels that may prove possible when there is a 'monopoly' element to the apartments being offered. However, a major attraction in the concept lies in the way it will address area-specific demand for this type of accommodation and these advantages are likely to prove sustainable for many years.

5.7 Conclusions regarding project economics

If we set aside the uncertainties regarding the demand for the proposed apartments at the proposed price, and the inevitable uncertainties in building costs, then the project appears very robustly to offer economic benefits well in excess of costs.

However, the benefits that support this statement include:

- Significant externalities, in the form of cost savings to governments over time; and, probably
- Additional resident benefits that may not be fully recovered from the initial loan/licence agreements at the proposed prices;
  - Some residents may well be willing to pay substantially more than the asking price, as was discussed above;
  - Recipients of affordable housing access will gain benefits that they will not fully pay for.
- Benefits to informal carers and families of residents.

The form of these effects alter the commercial attraction of the project. The commitment of TBS to the project and its willingness to include significant subsidies appears essential to the project proceeding now. In the longer term, TBS may move to a cash surplus, but is likely to have sustained still an opportunity cost that will only be justified by the values it, as a charitable organisation, attaches to the project – though the possibility of future income through strong capital gains might offset this in time. This statement in no way detracts from the conclusion that the benefits appear comfortably in excess of costs – if the assumptions made as to demand and construction costs prove broadly sound.

A key outcome from the early life of the project will be much better information on the soundness of those assumptions. This information is likely to have large option value for the community – providing a basis for developers and governments to develop strategies to gain more value from the 'Apartments for Life' concept. This is the subject of the next section.

6 The 'economics' of the 'Apartments for Life' demonstration

Section 5 strongly suggests that the underlying economics of the Ocean Street project stand up – at least in the sense of the expected, or risk-weighted, benefits being greater than the expected costs. There are risks, as noted, but these appear modest and are being accepted by TBS and this actually reinforces the case that *expected benefits exceed expected costs*. In addition to covering TBS costs (though only just if we ignore the benefits TBS attaches to the provision of affordable housing), the development looks set to deliver substantial benefits to governments and the broader community.

That assessment does not include any value attached to the information and concept demonstration that the development will provide, as a possible stimulus for additional investments of this type in the future. It is arguable that these benefits will actually swamp the net benefits from the project viewed as a stand-alone project.

The mechanism involved here is the potential for the project to alter the pattern of future retirement home developments – to introduce earlier and faster than would otherwise be the case a number of analogous developments, provided by a range of developers. Were this to happen, and these projects were each to deliver significant net benefits comparable to the above assessment for Ocean Street, then the cumulative value could be very large.

It is not possible to be prescriptive about how big an impact the Ocean Street development will make. It is clear that TBS sees this demonstration effect as one of the primary outcomes from the project – and that it is committed to encouraging others to consider such developments because it would see this as advancing its objectives to deliver better and more cost effective support for the aged. TBS will not rely on simple 'osmosis' to communicate the lessons from the project – and is proposing to invest in communicating the lessons early and effectively as a core part of its strategy.

Section 5 suggests that this process is likely to be effective – in that it will be providing information about a commercial investment opportunity with flexibility, in relation to matters such as affordable housing, to accommodate a range of investor perspectives. The project can be expected to lower risks and probably to point to lessons to allow other projects to be made even more cost effective. It seems very reasonable to anticipate that, if the up-front experience with Ocean Street is in line with expectations – notably in terms of project costs and willingness to pay for entry – then this should encourage significant investor interest.

For purposes of providing crude indicators of the size of the wider opportunity, we have made the assumption that there might, under the right policy settings, be an opportunity for about 50 'Apartment for Life' complexes being built over the next 25 years, accommodating about 10,000 aged residents, and all delivering benefits across stakeholders in excess of costs.. The figure may be higher, but there are constraints on suitable locations defined by the model. We note that Humanitas in Holland has moved from 1 to 15 developments over about 14 years, and is proceeding with both more developments and with pushing the developments to deliver even lower risk of needing to move into residential care later.

Of course, 50 developments (supplied by a range of investors across Australia) will only be a tiny fraction of the potential base of aged persons, but would substantially alter the range of choices available – and would almost certainly also foster some beneficial spin-offs in the design and operation of other complexes, even if they do not fully incorporate the 'Apartments for Life' principles.

It would be a stretch to seek to attribute all of this to the Ocean Street development and TBS advocacy. If the model has merit, it is likely that, even without TBS involvement, there will be some movement in this direction over the next 25 years. The growing attention, documented earlier, being paid to flexible accommodation and universal design supports this.

Nonetheless, TBS is offering a process that is likely to accelerate this form of development substantially. As is discussed below, it also raises the question of whether governments should not consider acting also to encourage such developments on the grounds that it could be highly cost effective – and in the longer term cost saving – for governments to do this. Such policies may contribute to the capacity of governments to limit the fiscal pressures of the ageing population while actually raising care standards.

A key issue here is the scope governments – probably especially the federal Government – may have for *accelerating the rate of take-up of this concept* – and hence bringing forward, and locking in for decades, access to the associated benefits in terms of lower costs to governments. Government interest here is likely to lie with the benefits later accruable through lower costs and a more appropriate mix of aged housing, rather than the benefits to the developer.

Of particular importance is the fact that some of the major uncertainties currently involved with the 'Apartments for Life' concept, as it applies in Australia, will be resolved over the next few years as a result of TBS's willingness to accept the project risk. From the perspective of governments and the community, the project has low risk and there is likely to be a much firmer basis on which to plan responses to the concept in the near term.

6.1 Sharing costs to increase benefits?

Based on the earlier assessment of potential benefits to governments, with an indicative benefit estimate of $20m for the Ocean Street development, progressive roll-out of 50 such complexes over 25 years would involve benefits for governments of several hundred million dollars – in present value terms at 7 per cent. At a 3 per cent discount rate, the benefits would move well above $1 billion and in both cases these estimates are probably very substantial underestimates, for reasons outlined earlier.

As was noted above, it might be a bit much to attribute all these benefits to TBS, but if the benefits are real, and TBS involvement now can encourage a faster roll-out, then the benefits truly attributable to TBS would still be large.

Equally, if government policy were to develop in response to this opportunity, there might again be scope for exerting significant influential benefit on the overall benefits over time:

The discussion in Section 5 suggests that the project may currently lack wide commercial attraction even though it offers benefits well in excess of costs, including benefits to the governments. It also suggests that the gap needing to be bridged to make a project of this kind commercially attractive is probably quite small.

These two points combine to suggest that a modest up-front contribution to project costs by governments, sourced out of their future cost savings, could encourage much faster roll out of the model, delivering a significant net benefit to governments and the community. This would not be a subsidy to uneconomic investment – instead it would be an intervention designed to reduce impediments to economic investment proceeding.

Beyond the attraction of this net benefit to governments, the justification for such intervention could be based on likely market failure because of the poor alignment between commercial and economic incentives – because of the externality benefits that would fall largely to governments. Effectively, governments would be buying services on the basis that it can do so cost effectively this way, relative to the costs it would otherwise incur, or the costs the community would otherwise incur if these services were not sourced in some other way. These services that governments would 'buy' would include affordable housing, cost effective substitutes for the requirements for government contribution to residential care and health services that would otherwise occur, improvements in the productivity of community care services etc.

We are not proposing a specific level of subsidy at this stage. A decision on whether a subsidy is needed, and if so in what form and at what level, can

sensibly await the results of the initial investment planned for the Ocean Street site. However, it would seem sensible that governments recognise that they are stakeholders in the outcome of this project and engage with the process to ensure that they are well placed to derive maximum value from the options that are being created.

Given the critical role in the financial assessment played by the affordable housing contribution, this may well be a sensible focus of at least some aspects of any policy response. There may well be cost effective opportunities to advance governments' agendas in relation to affordable housing that would not proceed without a contribution from the governments. Clearly some developers might be more willing than others to value additional affordable housing directly – but decisions on the proportion of apartments to be made available on an affordable basis are still likely to be sensitive to the level and form of government contribution.

6.2 Inter-jurisdictional considerations

In a number of respects the 'Apartments for Life' approach creates challenges for the existing arrangements for funding needs in relation to aged care, affordable housing and even housing more generally needs. This is because of the way that implementation of the 'Apartments for Life' model would involve structural shifts in the way that support would best be offered – in some cases shifting nominal responsibilities between jurisdictions and, within jurisdictions, between funding 'buckets'. In particular we note that substantial implementation of the model could:

- Lower demands for hospital services (relative to the rising trend) while possibly substituting some demands for HACC, EACH etc – while also possibly supporting a shift in relative emphasis from EACH to HACC, because of the nature of the facilities and the internal care arrangements to be provided.
- By allowing better retention of established social networks, and supporting new social networks within the developments, reduce some of the psychological pressures on older people and associated demands for support services in this area.
- Blur the line between provision of affordable housing and provision of housing for the aged – while addressing the reality of a trend towards a higher share of affordable housing being better suited to the needs of older people.
- Lower the demands for new investments in high cost high care residential facilities, again relative to a rising background trend.
- Free up the availability of some established housing in the vicinities of the new developments, typically in inner city areas and configured to be better

suited to the needs of younger families – reducing demands for construction of such accommodation in other parts of cities.

- Provide platforms for rethinking more streamlined broader approaches to community care.

All of these have the potential to deliver both cost savings to the community and better outcomes for the ageing population and other groups. However, under current funding arrangements, these developments would frequently involve higher costs in respect of one funding 'bucket', with the benefits accruing as cost savings in other buckets and as benefits to key groups. This could, without appropriate management, limit the incentives for the right forms of government support coming at the right time.

The basic problem of conflicting incentives that can arise where responsibilities straddle jurisdiction and funding buckets is neither new nor unrecognised. Otherwise highly cost effective investments can be discouraged or distorted if they involve shifting costs between jurisdictions or funding buckets. There is almost certainly a strong case for these conflicts to be addressed even without considering the implications of the 'Apartments for Life' model. However, the potential that appears to lie with this model would seem to further strengthen the case for development more coherent incentive arrangements – and this would require policy shift and change in some funding cultures.

State and Federal governments have recently highlighted their recognition of the need to address these perverse incentive effects and have established an agenda:

> "COAG agreed to consider in 2009 an ambitious program of reforms to roles and responsibilities for funding and delivery of services to the community. The goals of such reforms will be to deliver more integrated and responsive services for individuals and families, to clarify accountabilities between governments and to improve performance of service systems. COAG requested officials to bring back specific proposals in relation to community mental health, disability services and aged care in the first half of 2009 as part of this program." (COAG Communiqué, 29 November 2008)

> "The work plan for the Council of Australian Government's Health and Ageing Working Group includes a focus on increasing and reforming community-based care, focusing on opportunities for more seamless delivery, and the intersection between aged care funding, HACC and disability funding." (Address by the Federal Minister for Ageing to the Aged And Community Care Victoria Annual State Congress, 20 June 2008)

> "We mentioned earlier some of the problems in ensuring continuity of care for older people moving from one kind of aged care service to another. If we look across the Home and Community Care (HACC) program, community aged care places (including Community Aged Care Packages and Extended Aged Care at Home Packages) and residential aged care services, there are a raft of different program rules that make the system complex for people and their families…
>
> "We propose that there be a more flexible range of care subsidies for people receiving community care packages, determined in a way that is compatible with care subsidies for residential care...
>
> "Existing funding and charging arrangements across aged care can create perverse incentives, so that people do not necessarily get the right care...
>
> "We have proposed in reform direction 6.6 that there be a more flexible range of care subsidies for people receiving community aged care. If this occurred, there would be more opportunity to move down the path of consumer-directed care. The level of resources available to people would be more closely related to an assessment of their need for care...
>
> "We propose that people supported to receive care in the community should be given the option to determine how the resources allocated for their care and support are used." (National Health and Hospitals Reform Commission, 2008)

This is clearly not the place to try to resolve the complex social and policy involved here. However, it is appropriate to recognise that current policy settings could slow the rate of implementation of the 'Apartments for Life' model below levels that would be most effective from a community-wide perspective. In effect, the current incentives foster a form of regulatory failure and most vulnerable will be innovative strategies that entail a substantial move in the incidence of costs – even if they offer substantial cost savings overall.

It would seem in the interests of governments to ensure that, in reviewing these policy settings, the potential implications of the emergence of this sort of housing model be factored into the planning.

7 References

Accessible/Adaptable Housing National Network (2003), *Towards and Access Standard for Housing in the Building Code of Australia: A Discussion Paper.* http://www.anuhd.org/content/publications-anuhd

Aged and Community Services Australia (2005), *Towards Barrier Free Housing for an Ageing Australia: Accessible, Adaptable and Universal Design; An Issues Paper & resource Guide.* http://www.agedcare.org.au/POLICIES-&-POSITION/Position-and-discussion-papers/accessible_housing_paper.pdf

Aged Care Price Review Taskforce (2003), *Investing in Aged Care.* (Hogan Report.) http://www.health.gov.au/investinginagedcare/index.htm

Amram, Martha and Nalin Kulatilaka (1999). *Real Options: Managing Strategic Investment in an Uncertain World.* Boston: Harvard Business School Press.

Australian Institute of Health and Welfare (2008), *Residential Aged Care in Australia, 2006-07: A Statistical Overview.* Aged Care Statistics Series, No. 26.

Banks, Gary (2008), *Health costs and policy in an ageing Australia.* Health Policy Oration 2008, Menzies Centre for Health Policy, John Curtin School of Research, Australian National University.

Becker, Hans Marcel (2003), *The Art of Living in Old Age: Happiness-Promoting Care in an Ageing World.* Eburon Delft. http://www.humanitas.nu/static/images/TheArtofLivinginOldAge.pdf

Boufous, S., C. Finch, S. Lord and J. Close (2005), *The increasing burden of pelvic fractures in older people, New South Wales, Australia.* Injury, Vol 36, No. 11.

Hill, M (1999), "Breaking into Adaptable Housing: Cost benefit analysis of adaptable homes," Paper presented at the 1999 ACT Adaptable and Accessible Housing Conference. http://www.adaptablehousing.org/.

Cullen, D (2006), *Factoring the cost of aged care into retirement planning.* Paper presented to 14th Annual Colloquium of Superannuation Researchers: Choice in Retirement Funding. Centre for Pensions and Superannuation, UNSW. http://wwwdocs.fce.unsw.edu.au/economics/CPS/conferences/2006Colloquium/CULLEN_David.pdf

Liverpool Hospital Trauma Department, *Falls in Older People.* http://www.sswahs.nsw.gov.au/liverpool/trauma/

National Health and Hospitals Reform Commission (2008), *A Healthy Future for All Australians – Interim Report.*

http://www.nhhrc.org.au/internet/nhhrc/publishing.nsf/Content/interim-report-december-2008

Organization of Economic Cooperation and Development (1999), *Ageing and Care for Frail Elderly Persons: An Overview of International Perspectives*, Labour Market and Social Policy, Occasional Paper No. 38.

Productivity Commission (2005), *Economic Implications of an Ageing Australia*. Research Report, Canberra. http://www.pc.gov.au/__data/assets/pdf_file/0004/83380/aged-care-trends.pdf

Productivity Commission (2008), *Trends in Aged Care Services: some implications*. Research Paper, Canberra.

Tiedemann, A., S. Murray, B. Munro and S. Lord (2008), *Hospital and non-hospital costs for fall-related injury in community-dwelling older people*. NSW Public Health Bulletin, Vol 19 (9-10), page 161. http://www.publish.csiro.au/?act=view_file&file_id=NB07022.pdf

Treasury (2007), *Intergenerational Report 2007*. http://www.treasury.gov.au/igr/IGR2007.asp

A Indicators of cost saving to government

In this attachment we develop some crude indicators of potential savings to governments. The approach adopted has been to focus on conservative assumptions and the systematic accumulation of a series of conservative assumptions can result in significant levels of conservatism – of bias towards underestimation of the potential savings. In doing this, our interest has not been to develop good point estimates of savings, but rather to test how robustly it can be concluded that there are significant savings to be had and under what circumstances they might be jeopardised – as a basis for all stakeholders considering the implications for their forward strategies.

The need for this approach has been driven by two types of factors:

- Projections out over many years must be subject to high levels of uncertainty; trying to optimise strategy based on expected outcome could be quite dangerous and good point estimates are just not obtainable.
- This study has itself been constrained to a relatively high level examination, and did not include scope for highly detailed modelling, even if this were technically possible. The approach taken has avoided the need for such resource-intensive detail in considering the broad strategic lessons.

A.1 Avoided costs of residential care

Current use of residential aged care is very strongly linked to how long an individual lives. As a result of this, more women than men eventually need move into such care. In 2006-07, a quarter of all persons aged over 85 were in residential aged care, as shown in Table 1. Since 2000, the likelihood of being in residential care has fallen for each age cohort

Table 3 **Propensity to be in residential aged care by age, %**

	<65	65-69	70-75	75-79	80-84	85+
2000	0.04	0.65	1.51	3.73	9.05	26.32
2007	0.04	0.6	1.29	3.27	7.96	24.03

Data source: Derived from AIHW, 2008)

In 2006-07, the average duration of stay in residential care for those who left care in that year was 146 weeks – longer for women than men – and this duration figure was starting to increase (AIHW, 2008).

As was shown in Figure 3 earlier, Federal Government estimates of the lifetime likelihood of needing to enter residential care, for persons now on the age range of 65-75 – are about 40 per cent – again somewhat higher for women

than men. By age 80, the likelihood is closer to 45 per cent. This age range of 65-80 is broadly reflective of the age range likely to predominate with initial entry to the Ocean Street complex.

To provide a basis for assessing the benefit of a significant reduction in the likelihood of needing to move to aged care, we consider a stylized model of the initial intake to the Ocean street complex, consisting of 20 per cent aged 80, 50 per cent aged 75 and 30 per cent aged 70. We further assume, in line with Figure 3, that under current aged care options, the probability of ever entering aged care, for these three age cohorts, would be about 50 per cent, 53 per cent and 55 per cent respectively. The age cohort targeted by the Ocean Street development already has a higher likelihood of ever needing residential care than does the general population (at closer to 40 per cent) – adding to the significance of the target level of residential care for Ocean Street of only 5 per cent. This reflects the fact that the likelihood of ever entering residential care rises as one ages until around age 80-85 – largely because of the likelihood of earlier death. This pattern is reflected in Figure 3.

In fact, these assumed probabilities of progressing to residential care appear to be slightly below the Cullen estimates shown in the figure, but we have sought to be conservative and have taken into account the need to read the numbers from a chart, with a level of error.

We further assume, again clearly a stylized assumption but one likely to lead eventually to conservative estimation of the cost savings for governments, that the proportion of these groups that eventually need to move into care all do so when they turn 85. Of course there will be a spectrum but for purposes of illustrating the order of magnitude of the effect, this is considered not unreasonable.

A crude combination of these estimates suggests that, for this age group and based on recent Federal Government modelling, the average time that will be spent in aged care (excluding respite care) is about 40 per cent of 146 weeks, or about 60 weeks per person. This figure is a weighted average across those who enter care and those who do not.

And we assume that those who progress to residential care remain in that care for an average of 146 weeks, in line with the above discussion.

Federal Government costs of residential care have been inferred from Figure 2 and Table 1. Figure 2 indicates the total costs of residential care in 2006-07 was 0.5 per cent of GDP. GDP in that year was $1,046 billion (current price basis) – implying a cost to the Federal Government of residential care of $5,647m – or about $33,000 per patient per annum.

These costs will be triggered for just over 50 per cent of the initial intake, if their propensity to move to residential care remains the same as in the general community, as they turn 85. This may actually prove to be a highly conservative assumption, given TBS expectations that they will move to having about a third of residents with relatively high care conditions – consistent with access to EACH packages. If this is the case, then the normal probability of these residents eventually needing to progress to residential care could be substantially higher.

We also assume that the attributes of the development will allow a delay in moving into residential care, even for those who eventually need to move. For purposes of modelling, we have assumed that the average duration in residential care is reduced by 40 per cent.

Calculating a weighted average present value (calculated at 7 per cent real discount rate[4]) for this level of call on residential care services, compared to the target rate for the complex of 5 per cent, implies costs avoided of about $4.9m in residential care costs *across the initial intake of residents*. Based on an assumed turnover rate of 8 per cent, with replacement residents maintaining the same age structure, long term costs of residential care avoided can be inferred at about $9.7 million.

If we further assume that remaining at the Ocean Street development rather than moving to residential care requires a higher level of community care – indicatively at a level reflective of some mix of HACC and EACH care which has been approximated as averaging twice the average HACC cost, then the net savings would be, on this indicative basis, $8.7 million present value calculated using a discount rate of 7 per cent, or $18.6 million using a discount rate of 3 per cent. This is based on inference from Table 1 that HACC costs are approximately 5 per cent of average residential care costs to the Federal Government.

We stress again that these figures are very much indicative but seem to capture the key elements and are almost certainly biased towards under- rather than over-estimation of savings. This is particularly true if the development delivers on the TBS objectives of including in its mix about a third of people needing high level community care – broadly at an EACH-qualifying level – as well as

[4] There is no right discount rate for use in this type of evaluation. Australian government guidelines for evaluating government expenditure on infrastructure suggest 7-8 per cent as a base figure. Commercial developers may well seek more. Some analyses of health and welfare programs have used lower figures. For example, The World Health organisation recommends 3 per cent in evaluating public health programs. Use of 3 rather than 7 per cent would imply savings of $19.6m rather than the $9.2m indicated here.

getting down to 5 per cent the proportion of all residents eventually needing to move to residential care.

A.2 Avoided health system costs

A range of mechanisms have been identified as contributing to reduced hospitalisation as a result of residence at the complex. These include:'

- the higher quality and reliability of in-residence care, lowering the common demands for hospitalisation as a mechanism for accessing suitable care; and
- reduced risks of injury as a result of better design.

We do not have good data on which to base an assessment of the first item, though anecdotal evidence suggests that the opportunity is substantial – and could entail significant savings in hospitalisation costs.

On the second item, we have examined some data on risks and costs of falls in NSW. As was noted in Section 3.2, Tiedemann *et al* (2008) estimate average costs per fall of $1600, in 2000 dollars – likely to be in excess of $2,000 in 2009 based on CPI trends. They further note that only 4 % of cases require hospitalisation, but that these cases account for 67% of all costs. From this we can infer that all costs are approximately 150% of hospitalisation costs. These hospitalisations involved an average cost in 2000 of $26,800 – presumably well over $30,000 now.

NSW Health Department statistics indicate an average annual risk of a fall resulting in hospitalisation, across major cities, of 2.32% for men and 3.15% for women over 65. Note that over remaining life expectancy for persons at 70, the cumulative risks implied are substantial. For example, an annual risk of 2.8% would compound over 15 years to a risk of at least one fall requiring hospitalisation of the order of 35 per cent. In reality, the changing risk as an individual ages would imply a somewhat different figure, but this points to the order of magnitude of the cost.

Assuming an average 2.8% annual risk across all residents of the complex, and using the above cost per hospitalisation of over $30,000, translates to an annual health cost of $2.3m for those hospitalised and – based on the above reasoning – a total health cost from falls that is 50% higher, or around $3.4m.

We do not have a firm estimate of the reduction in risk that might occur because of the features of the Ocean Street development, but these features are such that a reduction of the order of 50% would seem plausible. Recognising also the unquantified benefits from reduced need for hospitalisation in respect of other conditions, a potential cost saving of several million dollars would seem possible and even likely. As was noted in the text, there might be some offset in the form of people remaining in the complex rather than moving to

residential care because of otherwise unacceptable risks of injury, but the overall gains still appear substantial.

A.3 Efficiency gains with community care

TBS has indicated expectations that about two thirds of residents would normally qualify for formal community care – clearly across a spectrum. The proposed model is expected to reduce both the level of calls for formal community care and to allow logistical savings in the provision of the care, through the function of the care advisor and the range of on-site facilities available to support care provision.

TBS indicates that about 20-25 per cent of the working time of its care workers is spent in *travel between clients* – with a direct loss of productivity and, more recently, a substantial cost with rising fuel prices. Coordination of the care needs within a single complex, with around 100 residents needing some form of formal care, and with good facilities for service provision, could allow a significant reduction in the effective travel time involved in dealing with the needs of the community.

As an indicator of potential for savings here, suppose we assume that, of the two thirds who would normally need formal care, a third of these care needs will instead be delivered via informal care (family and the community) and the improved design features of the facilities that mean individuals will be able to perform a range of tasks – such as meal preparation etc.

Of the remaining demands, we assume for illustrative purposes that a current 20 per cent loss of time in travel could be halved to 10 per cent – implying a 12.5 per cent improvement in utilisation of skilled care workers , or more than an 11 per cent reduction in the unit cost of care delivered (before counting savings in fuel etc).

While the level of care will vary across individuals, we assume that normal care would, on average, be at HACC levels and time costs. Table 2 implies that the cost to the Federal budget of HACC care averaged in 2006-07 about $1,800 per person being cared for. Community care is also funded by other governments – state and local – and by the recipients of the care where they have the financial resources, and by community organisations. The cost across governments, and even more so the total cost, would therefore be significantly higher.

Even at this unit cost of $1,800, the implied savings to the Federal Government over 45 years are about $1.4m in present value terms (at 7 per cent real discount rate). The total saving would be substantially more. These

benefits should be scalable across comparable facilities should more developments of this type proceed.

A.4 Avoided costs of affordable housing

It has already been noted that the allocation of 25 per cent of the accommodation to affordable housing involves a cost of the order of $16m, not including the associated opportunity cost of the land involved. Given the extent of other facilities included in the design, it may be excessive to attribute 25 per cent of the land value to the affordable housing component, but even at half this, the implied opportunity cost would be of the order of $1.5m. The total value of affordable housing being proposed for the Ocean Street site is therefore in excess of $17m.

Without this contribution from TBS, it is likely that there would be a transfer of demands to the Federal Government – in the form of increased requirements for affordable housing subsidies. The response may well not be of the same standard or in the same area – but the likelihood is that there would be significant additional costs for governments. Even if the effective subsidy were halved in the alternative response from the Government, this still suggests savings to governments of the order of $8-9m as a result of the Ocean Street development. An alternative would be greater costs to the community in the form of greater inadequacies in the availability of affordable housing.

A.5 Timing effects

It is worth noting that the major cost savings for governments are largely in the future – via longer term residential care loads, health sector costs etc – while the creation of the cost savings will require short-term capital investment. There is a shift in timing of costs involved. This could sensibly be viewed as an investment opportunity – investments generally involve up-front expenditures to secure future access to a stream of benefits of greater value than the investment costs.

However, the securing of the cost reductions will require bringing forward, and altering the form of, some government expenditures. This implies that a policy shift may be needed if the investment opportunity is to be exploited efficiently – market incentives alone are unlikely to support an optimal pattern of roll-out.