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Abstract

The Final Report of the Royal Commission into Aged Care Quality and Safety (2021) highlighted the challenges in developing a sustainable financing system for Aged Care in Australia. The Report recommended additional funding both in the short term and longer term, to provide an adequate level of aged care quality for older Australians including exploring an actuarially based contributory social insurance scheme for aged care. Sustainable financing of aged care requires a balance between government tax-based financing, individual contributions during working life through an aged care levy, co-payments for aged care costs for those receiving aged care and means testing for these co-payments. There should be a role for private market insurance and financing to supplement government financed aged care support.

1. Introduction

The Australian Aged Care Financing system is critical to the well-being of older Australians. Aged care, or long-term care, is a risk that arises as an individual ages, and is closely related to longevity, a risk financed through the Australian superannuation system and the government means tested Age Pension. Some of these costs, mainly living costs and accommodations costs in residential aged care, are also financed from individual retirement income streams and retirement savings including home equity.

Government taxpayer-funded financing will not be sustainable given the expected increase in aged care cost as the Australian population ages and the impact of the recommendations of the Royal Commission into Aged Care Quality and Safety; individual provision from retirement and personal saving will be required, especially for those with higher wealth and better health and longevity prospects. Sustainable aged care financing will be possible with government financing from consolidated revenue, contributions from individuals during their working lives, and means-tested co-payments from individuals for care costs. The challenge is to balance these financing sources so that the financing system integrates with retirement income financing, provides reasonable intergenerational equity as a new financing system is introduced, provides the right structure of care payments and incentives to limit moral hazard, and allows the development of private market insurance mechanisms for individual co-payments and aged care cost such as living and accommodation during residential care. The high level of heterogeneity amongst individuals in terms of health status, longevity, and wealth, including home equity must also be taken into account. The appropriate mix of financing and insurance of aged care costs and risks will differ depending on Individual circumstances.

In a well-designed aged care financing system, there is a role for innovation in private market products including life care annuities and reverse mortgages combined with long-term care insurance. For these products to be successful it is important for there to be a regulatory environment that ensures lowest practical loadings in premiums for underwriting, adverse selection,

administrative expenses, taxation, claim payment expenses, risk margins and safety loadings. Mutual sharing of risks with fixed payment insurance policies and flexibility to include fixed inflation in benefit payments provide more cost-effective solutions. Efficient management of the impact of systematic factors such as trends in longevity is important. Providing these products through a government insurer or reinsuring the systematic risks of long-term care insurance through a government reinsurer, could address the current lack of successful product innovation in the Australian market.

An assessment of a sustainable financing of aged care costs requires the actuarial modelling of the future costs and contributions based on actuarial, economic and demographic models incorporating trends and uncertainties. This modelling will need to consider different expected aged care benefit payments, expected aged care contributions from individuals during their working life as well as taxation to finance government pay-as-you go aged care payments for differing generations. A phased introduction of any new aged care levy will be required for intergenerational equity.

2. Aged Care Royal Commission Final Report Financing Recommendations

The Aged Care Royal Commission Final Report made recommendations relevant to the financing and sustainability of the Australian aged care system. The Report recommends that aged care should be a universal entitlement with aged care support based on assessed need and publicly funded. The Terms of Reference of the Aged Care Royal Commission includes 'how best to deliver aged care services in a sustainable way'. Funding is currently on a pay-as-you-go basis financed from Consolidated Revenue paid by those working, to fund costs of aged care as these are incurred for older Australians. An ageing population places pressure on such a financing system.

The Aged Care Royal Commission Final Report proposed that a hypothecated levy should be introduced through the taxation system to support the sustainability of financing for the aged care system.

Commissioner Pagone's recommendations are worth highlighting. His approach is that of a social security system financed by a taxable income based aged care levy with hypothecated assets based on actuarial principles and management. His recommendations included:

"The amount of funding necessary to secure sufficient funds to provide expected benefits to meet assessed needs should be arrived at using the best available evidence, knowledge and expertise. The calculations underlying these projected amounts should be actuarially-based, using appropriate statistical procedures." Royal Commission into Aged Care Quality and Safety, Final Report, 2021, Volume 3b, The New System, page 767.

"I envisage a greater role for contribution by each person toward the financing of the aged care system through that person's working life, and a greatly diminished or non-existent role for mandatory means tested co-payments by people when they are receiving aged care later in life." Royal Commission into Aged Care Quality and Safety, Final Report, 2021, Volume 3b, The New System, page 768.

"I recommend consideration by the Productivity Commission of the adoption of insurance-based (actuarial) principles in the future financing of the system." Royal Commission into Aged Care Quality and Safety, Final Report, 2021, Volume 3b, The New System, page 768.

"... recommend that the Australian Government should commission the Productivity Commission to investigate and report on the potential benefits and risks of adoption of an appropriately designed financing scheme based upon the imposition of a hypothecated

levy.” Royal Commission into Aged Care Quality and Safety, Final Report, 2021, Volume 3b, The New System, page 768.

“The Aged Care Levy I envisage would finance an Aged Care Fund on a long-run pay as you go basis over, say, a thirty-year horizon, based on actuarial principles.” Royal Commission into Aged Care Quality and Safety, Final Report, 2021, Volume 3b, The New System, page 778.

“I do not underestimate the extent of the data that will be needed for sound and reliable calculations to be made.” Royal Commission into Aged Care Quality and Safety, Final Report, 2021, Volume 3b, The New System, page 778.

“..it would be necessary to establish an office to be held by skilled actuaries who would be responsible for management of the fund generated by the revenue from the Aged Care Levy—an Aged Care Fund Actuary.” Royal Commission into Aged Care Quality and Safety, Final Report, 2021, Volume 3b, The New System, page 779.

The Final Report highlights the complexity of the aged care system and recommends the streamlining of the aged care system into an integrated system with only one aged care program and a single assessment process. Australians would have a well-defined entitlement to aged care.

Commissioner Briggs supports the introduction of an aged care levy but not to the extent of Commissioner Pagone. Her recommendations included:

“General revenue funding very effectively spreads the risk of incurring aged care costs late in life across the population as a whole. This is far more efficient than if each individual were separately required to arrange insurance to cover these costs, or if the risks of incurring catastrophic costs late in life were spread across a smaller part of the population.” Royal Commission into Aged Care Quality and Safety, Final Report, 2021, Volume 3b, The New System, page 921.

“To complement these measures, there would also be value in an earmarked aged care levy. This would provide a clear and public commitment to the ongoing funding of Australia’s aged care obligations. It would establish an important social contract for the provision of high quality aged care, consistent with the recommendations in this report.” Royal Commission into Aged Care Quality and Safety, Final Report, 2021, Volume 3b, The New System, page 922.

“I do not support proposals to fund the entire costs of the aged care system from a fund financed by a hypothecated levy on personal income. I recommend instead an earmarked, non-hypothecated levy, like the Medicare levy, to fund a substantial part of the investment required to implement our recommendations to improve the quality and safety of aged care.” Royal Commission into Aged Care Quality and Safety, Final Report, 2021, Volume 3b, The New System, page 922.

The recommendation is made that:

“By 1 July 2021, the Australian Government should refer to the Productivity Commission for inquiry and report under the Productivity Commission Act 1998 (Cth) s 11 the potential benefits and risks of adoption of an appropriately designed financing scheme based upon the imposition of a hypothecated levy through the taxation system.” Recommendation 138,

Royal Commission into Aged Care Quality and Safety, Final Report, 2021, Volume 3b, The New System, page 769.

A sustainable aged care financing system for Australia will reflect these recommendations of the Commissioners. It will benefit from individual contributions through a tax-based aged care levy during their working lives, pay-as-you-go government financing from Consolidated Revenue as well as well-designed co-payments and means testing for aged care benefit payments. The challenge is to balance the different sources of financing, including the introduction of any new aged care levy to ensure reasonable intergenerational equity, as well as well-designed aged care entitlements and entitlements that reflect insurance principles.

3. An Aged Care Financing System for Australia

Sustainability will require a sharing of financing through an age care levy and government financing as well as sharing of benefit payments between government and individuals. The main issue is how to balance these. Public financing is the major source of funding of aged care costs, just as it is for health costs with Medicare as well as the NDIS. The aged care levy, similar to the Medicare Levy, should be determined as part of the actuarial assessment of the new financing system. Government financing for aged care should be based on a Budget target GDP percentage committed to aged care support but would be on a pay-as-you go basis capturing the impact of systematic risks and balancing the individual contributions from the aged care levy and co-payments. The financing of aged care in Australia should be based on an integrated insurance model for the assessment and payments made to fund home support, home care and residential care.

The existing aged care system has payments that are a mix of actual costs for aged care as charged by providers, who are subject to price reviews, quality standards and prudential regulation, and of defined levels of payment for different levels of health status and functional disability along with cognitive decline. From an insurance perspective a well-defined basis for determining eligibility based on Instrumental Activities of Daily Living (IADLs), for Home Support, and Activities of Daily Living (ADLs) for Home Care would be beneficial. For residential care, there is a separation of accommodation, living expenses and aged care with individuals largely responsible for accommodation and living expenses.

The percentage of individual co-contributions should reflect the current sharing of costs which is approximately 25% from individuals with 75% met by public financing. There should be a lifetime cap on co-contributions to limit the adverse impacts of large aged care costs that could be considered catastrophic to an individual. Alternative levels of sharing of cost and levels of caps should be considered in structuring the financing system. The actuarial assessment should be based on estimated probabilities of requiring home support, aged care or residential care incorporating long term trends and uncertainty reflecting the impact relevant risk factors such as age, gender, and health status preferably determined from individual longitudinal data for Australians. Payments should be indexed to a measure of aged care cost inflation.

To allow for intergenerational equity the Aged Care Levy should be introduced over time. An approach to balancing intergenerational equity would be to start with all taxpayers over 50 up to the age that payments for home support or age care commence. Then every ten years the age that the Aged Care Levy would apply would be reduced by 10 years. After ten years all taxpayers over age 40 would pay the Aged Care Levy, after 20 years all taxpayers over 30 would pay the Levy and after 30 years all taxpayers would pay the Aged Care Levy. Since aged care costs are projected to increase over future years this will also provide an increasing source of financing for aged care costs.

The means tests used for the Age Pension at the time of payment of aged care benefits should be used to determine the co-payments for benefits that individuals make. Individuals on full Age Pension should pay no co-payment with all benefits met from public financing, with the co-payment increasing proportionally with the reduction in the portion of the Full Age Pension until the full co-payment being met by self-funded retirees with no entitlement to Age Pension.

With predetermined co-payments along with caps, a government or private long-term care insurance product should be developed to cover the co-payments with premiums payable from retirement age until time of payment of benefits. Regulatory, taxation, and means-testing requirements would need to be supportive of the financing of individual co-payments with innovative long-term care insurance and the financing of accommodation and living costs of residential care with equity release schemes.

Aged care financing should also be integrated with retirement income and health financing including means testing and the level of the age pension. Consideration should be given to making age pension payments depend on age at payment with higher payments after age 85.

There are opportunities for new financing arrangements in Australia for aged care risk and costs. Individuals have been accumulating retirement savings in the superannuation system, housing equity and other private savings. New products such as life care annuities and reverse mortgages incorporating long term care insurance have the potential to enhance the sustainability of existing arrangements. Because future mortality and aged care needs are uncertain and involve substantial costs, they are fundamentally suitable for insurance. Aged care risks that individuals are required to meet can be pre-financed using insurance and other retirement income products. Insurance reduces uncertainty about future risks and replaces self-insurance, which requires significant precautionary savings resources, with an average cost through risk-pooling. This improves individual welfare as well as societal welfare more generally. For long term care insurance, covering aged care risks, individuals trade off wealth if they remain in a healthy state, with wealth if they are functionally disabled or suffer cognitive decline.

Superannuation savings have been increasing with the maturing of the Superannuation Guarantee system in Australia. Over time these savings will reduce government Age Pension payments, especially in the earlier retirement years, through the means testing of the Age Pension. With a lack of private market longevity insurance, individuals will draw down these superannuation savings by later retirement ages. These are the ages when the risks of functional disability and cognitive decline most impact the need for aged care. Well-designed retirement income products can support the financing for aged care by ensuring more individual financial resources are available in older ages.

For some individuals, long-term care insurance may be attractive. Experience in the United States with long-term care insurance suggests that combining long-term care insurance with life annuities, or variable annuities with guaranteed lifetime withdrawal benefits, is more attractive for individuals. These products also mitigate the effect of adverse selection, broadening the group of individuals that can qualify to purchase the insurance. Sherris and Wei (2020) quantify the benefits of these “combo” insurance products. The capital costs to ensure solvency can also be reduced for these combined contracts.

Private market equity release products are currently limited and are regarded as expensive in terms of the interest rate charged allowing for the costs and risks including the no-negative equity guarantee. Cho et al. (2015) quantify the relative profitability and risks of reverse mortgage products in Australia and highlight the relatively low risks for providers of these product given the limitations

on loan-to-value ratios of these loans. Reverse mortgages can also be combined with long-term care insurance to provide more effective financing of these risks and costs. Shao et al. (2019) show the welfare benefits of combining long term care insurance with home equity release. These products are complex and require detailed actuarial assessment of the risks involved.

4 Actuarial Modelling of Aged Care Risks

To develop private insurance product solutions and to support a sound private insurance market in Australia, it is critical to understand the risks. This applies to the uncertainty in future longevity as well as levels of functional disability, including those used for Australian aged care support as well as Instrumental Activities of Daily Living (IADLs) and Activities of Daily Living (ADLs). To do this requires more sophisticated models and access to longitudinal data for Australians at an individual level. This remains relatively unexplored for Australia because of limitations on individual level aged care and functional disability data. Without such models there is limited detailed actuarial modelling of these risks suitable to assess many of the financing recommendations raised in the Royal Commission into Aged Care Quality and Safety Final Report. These actuarial and demographic modelling techniques are fundamental to assessing the costs and variability of government provided aged care along with the design and costing of private insurance products including insurer solvency capital requirements.

Financing should reflect the underlying risks as well as expected costs. Actuarial methods of quantifying long-term care risk are fundamental to quantifying the costs of aged care for private long-term care insurance and for government funded aged care. From a risk perspective, it is important to distinguish between aggregate, or systematic, risks and those that are insurable at an individual level. Systematic risks include improvement trends in longevity and the resulting changes in functional disability trends by age and time spent requiring aged care at different levels of care. These are systematic and impact the risks and costs of aged care for all individuals, and as a result are not fundamentally amenable to insurance.

Longevity and health status improvement trends are important since over many years there has been a significant increase in life expectancy, and the questions arises as to the extent to which this impacts the risks and costs of aged care. Modelling of trends in health transition rates is required to quantify the relationship between longevity improvement trends and risks of requiring aged care. Fong et al. (2015) quantify the risks of requiring differing levels of aged care based on activities of daily living. They show how this definition impacts the probabilities of requiring aged care as well as the length of time spent requiring aged care. Li et al. (2017) show that the effect of improvement trends results in an increase in expected future lifetimes as well as an increase in future healthy life expectancy, with the proportion of lifetime spent in functional disability on average remaining similar.

Incorporation of health status as well as functional disability allows the quantification of risk related to both longevity risk as well as aged care risks. Sherris and Wei (2020) incorporate both health status and functional disability, along with improvement trends and uncertainty, into the actuarial modelling of aged care risks based on US Health and Retirement Study (HRS) data. They show that incorporating health status is important in modelling aged care risks since not doing so may result in inaccurate estimates of healthy life expectancy and time spent in differing levels of functional disability that require differing levels of aged care. They provide an extensive analysis of the cost of different long-term care insurance policies, including life care annuities, quantifying the significant impact of inflation, long term trends and uncertainty. They also show that there are significant benefits from combining long term care insurance with a life annuity in terms of lower insurance premiums and lower uncertainty in the costs of aged care arising from systematic trends.

The risks and costs of aged care must be assessed for different financing mechanisms to consider the sustainability of government provided funding as well as private long-term care insurance, including the impact of trends and uncertainty. Costs vary by age, gender, and health status. Shao et al. (2017) show how the costs, in terms of an insurance risk premium, vary by age and gender using a representative long-term care insurance contract. The impact of different definitions of functional disability that trigger claim payment, maximum benefit periods as well as of inflation protection is also quantified. These design aspects of long-term care insurance provide the basis for development of insurance products that are more cost effective for individuals and that integrate with government provided aged care.

Aged care risk and costs vary across individuals and depend on risk factors including age, gender, and health status. Fong et al. (2015) and Sherris and Wei (2020) provide estimates of risks of functional disability based on U.S. Health and Retirement Study data. Not every individual will experience the same aged care risks and costs. As a result, these risks are in principle suitable for risk pooling through insurance, whether that be through government provided financing or individual financing.

5. Role for Private Long-Term Care insurance

Private product markets for insuring and financing longevity and long-term care risks remain thin and lacking in innovation in product solutions in Australia. There is a role for private insurance to play in financing Australian aged care. This provides additional resources to support the costs of aged care as well as the potential for more effective risk sharing. An important consideration is that governments are more able to absorb systematic risks in aged care costs especially where these are uncertain. These systematic risks include the impact of factors such as uncertainty in inflation and changes in technology that impact all individuals to a greater or lesser extent. These are fundamentally not suitable for insurance since they reduce the effectiveness of the pooling of risks by increasing the correlations between the risks and costs of aged care that individuals face.

Individuals are more able to meet costs that are relatively predictable. Insurance can make these costs more predictable for an individual, but the impacts of uncertainty in inflation and improvement trends are less amenable to insurance. It is also important to recognise that individual risks and costs of aged care support vary by many factors including gender and health status, and that an individual's ability to meet the premiums for private insurance may not correspond with the risks and costs. For example, female long-term care insurance requires higher premiums reflecting their higher longevity and higher risk of functional disability, yet females have on average lower wealth and savings at retirement and will be less able to afford private insurance. Not all individuals would be considered insurable in a private insurance market. Underwriting of long-term care insurance would usually mean that only individuals in good health at the time of purchase would be considered for this insurance. To be affordable and to reduce systematic risks, long term care insurance policies that pay fixed benefits, potentially with fixed inflation rates included, are likely to be more beneficial than indemnity-based policies.

For a range of individuals, depending on wealth, health status and housing equity, there is a role for private market insurance and financing solutions in combination with the government provided aged pensions and aged care support. If this is to occur, taxation, means testing, and regulatory requirements need to be conducive to a private insurance market. Premiums would be paid from superannuation or private savings as a lump sum at retirement or as a regular premium commencing at retirement age. The assets of the insurer offering the long-term care insurance would have a

similar tax treatment as a superannuation/pension fund, and benefit payments would not be subject to tax.

Solutions to aged care financing that include co-payments from individual wealth and private market insurance need to reflect individual circumstances. Less wealthy individuals will not be able to afford private long-term care insurance premiums, will not have housing equity wealth to draw on, relying heavily on government provided aged care financing. Individuals with significant levels of wealth, including housing equity, will be able to self-insure aged care risks and may have limited demand for private long-term care insurance. Individuals with middle levels of wealth, are more likely to benefit from private long-term care insurance. Those individuals in poorer health at the time of purchase of private long-term care insurance will face higher insurance premiums or be excluded from purchasing the insurance. Individuals in other than the best health status are unlikely to meet the health underwriting requirements for long term care insurance or, if accepted, the premiums may not be affordable. Long term care insurance has a valuable role to play in providing coverage for wealthier and healthier individuals and particularly in covering more severe functional disability that can be costly in its financial impact in later years of life.

The benefits of risk pooling are reduced by the frictional costs of organizing an insurance vehicle. These costs include underwriting costs, adverse selection, investment costs, taxation, claims assessment and management costs as well as regulatory costs, particularly solvency capital costs to support guarantees. For private market longevity insurance, such as guaranteed life annuities, these costs can increase the insurance risk premiums with loadings of around 10-15%, and for long term care insurance these costs can increase the insurance risk premiums with loadings by as much as 30-40%. They reduce the benefits of risk pooling and will reduce the demand for these insurance products. They can be more effectively managed through mutual risk sharing pools, or government provided products, reducing the capital costs for guarantees, and through economies of scale in insurer operations.

Understanding uncertainty in health transitions and longevity is critical to any sustainable financing of aged care since this impacts the future solvency of any hypothecated financing, as well as the amount of capital required to ensure solvency of private market insurers where private long-term care insurance is a part of a sustainable financing system. Higher levels of uncertainty require higher levels of capital to guarantee a specified level of solvency of an insurer, resulting in higher loadings in premiums to cover the costs of capital and reducing the demand for such insurance products.

Issues related to insurer pricing and solvency for long term care products have been considered in Shao et al. 2017). They compare stand-alone long term care insurance policies, whole life insurance policies with long-term care benefit riders (long term care insurance combined with whole life insurance), life care annuities (long term care insurance combined with annuities) and shared, long term care insurance in terms of actuarial premium costs and solvency capital requirements. They show that insurance policies with reasonable levels of fixed benefits can be designed to be relatively affordable for healthy lives. Premiums of stand-alone policies are high for disabled, severely disabled, and older individuals. Life care annuities that combine long term care insurance and life annuities are more affordable for disabled and older individuals as well as for healthy lives. Life care annuities have substantially lower solvency capital required per dollar premium compared to stand-alone long-term care insurance.

Innovation in product design for private insurance products is important in meeting individual needs and in reducing these costs. "Combo" products that combine life annuities or variable annuities with long-term care insurance, which are the most popular products in the United States, can mitigate

adverse selection costs as well as reduce capital costs (Sherris and Wei, 2020). These have the potential as a private insurance product to insure aged care costs and risks to be met by individuals.

6. Role for Private Equity Release Products

Housing is an important asset for current retiring cohorts since this can meet potential bequest motives and provides a potential substitute for long term care financing. With substantial wealth in housing, many currently retired individuals are asset rich and cash flow poor, highlighting the potential for private market equity release products beyond the government Pension Loans Scheme to finance individual aged care costs.

There is a role for government, beyond providing financial support for aged pensions and aged care needs of the retired population, in more actively supporting the development of private markets for longevity risk and long-term care products on a viable, efficient and fair priced basis. There are significant potential welfare gains to Australians from a government agency coordinating and promoting retirement income and aged care insurance products, as well as taking an insurer/reinsurer role in product innovations. An Australian government insurer or reinsurer for longevity products including long term care insurance could assist in developing a private insurance market.

To incorporate housing into retirement income decisions, it is necessary to understand the trends and risks in housing values and how to value products linked to housing values, such as equity release products. Models based on Australian and US data have been developed to quantify and model these risks including house prices, rental yields, and interest rates (Alai, et al. 2014, Cho, et al. 2015). Valuation models for application to equity release products incorporating mortality, long-term care move-out, prepayment, and refinancing, reverse mortgage “crossover risk”, actuarial risk factors and stochastic discount factors for fair pricing have been developed and calibrated. A reverse mortgage is not a conventional housing loan since it is impacted by many risk factors similar to a life insurance product in terms of time of repayment and valuation of the guarantees on house values in these products require sophisticated financial and actuarial modelling.

As a major asset for retirees, equity in housing has an important role in insuring and financing retirement risks. The home provides a consumption benefit, equivalent to an imputed rent, reducing the need for higher levels of retirement income that renters face. It is also an important form of precautionary savings providing insurance against costs of aged care and moving into nursing home later in life. It also provides an important bequest asset, if not used for earlier consumption, or to finance aged care costs. It is an illiquid asset providing capital gains and volatility that is not observed as easily as for share market investments.

Equity release products, both reverse mortgages and home reversions, have a valuable role in accessing home equity in retirement, with potential to provide higher consumption while individuals are healthy and to finance longevity or aged care risks through financing the purchase of life annuities or long-term care insurance. Equity release products are complex and there are different types of equity release. Lump sum equity release products have risk and profitability benefits compared to income stream products, and home reversions have advantages over reverse mortgages (Alai et al. 2014, Cho et al. 2015). It is also important to consider the impact of house price risks and longevity risk on reverse mortgage pricing (Shao et al. 2015). There are benefits from “combo” products such as a combination of a lump sum reverse mortgage with long term care insurance (Shao et al. 2019).

The demand for these product innovations depends on many factors. It's important to consider the level of an individual's wealth, the government provided means tested Age Pension and aged care support, as well as housing and other retirement income sources and savings (Xu, Alonso-Garcia, Sherris, and Shao, 2019). Individuals face complex decisions in retirement incorporating many factors including risks and cost of aged care. Providing simplified, easy to follow financing and insuring arrangements for aged care in Australia would assist this decision-making process.

7. Conclusions

Aged Care financing in Australia will only be sustainable if the basis for entitlement, assessment and funding is based on insurance principles with a sharing of costs between pay-as-you-go taxpayer funds and individual contributions during both their working life and, if and when, individuals require aged care in later life. Actuarial modelling and analysis is required to assess the balance required between individual contributions through an aged care levy during working life and means-tested co-payments for aged care. In a well-designed sustainable financing system, there should be a role for private long-term care insurance and the use of home equity taking into account differing individual health and wealth levels at and during retirement.

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