

2013 Review of retirement income policy

Implications of global trends for retirement income policy

By Rick Boven and Lillian Grace

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1. Executive summary

This paper aims to provide background information for those conducting the 2013 review of New Zealand's retirement income and for New Zealanders who wish to participate in the consultation processes.

The retirement experience is influenced by how well prepared retirees are, how they expect to be treated, and how they are treated. Global trends will impact both how well prepared retirees are and how they are treated.

The story begins with global trends related to economic growth, affected by technology and environmental constraints. Health, population, society and politics trends are summarized.

Potential unemployment from technology and capital efficiencies combines with the risk of environmental constraints reducing well-being growth to imply it is risky to extrapolate trends of economic and asset value growth assumptions for retirement income planning.

To explore future possibilities we developed four scenarios. The scenarios were identified based on grouping potential outcomes of the less certain trends and naming the underlying structural dimensions. The dimensions were labeled economic progress and social cohesion.

The four possible scenarios were defined by having more or less of each of economic progress and social cohesion. The scenarios were labeled *successful progress*, *winners v losers*, *struggling together* and *falling apart*.

Successful progress is the extrapolation from our experiences of the last few decades with economic progress combining with social cohesion. It is a case frequently assumed in retirement income planning.

If economic progress falters and social cohesion falters too then worst case, *falling apart*, occurs.

As a small participant in an integrated global economy-environment system, New Zealand cannot expect to influence whether global economic progress will continue or will falter during the next 40 years. New Zealand may reduce the effects of global economic risks but will remain exposed.

New Zealand can affect whether there is more or less social cohesion by more or less effort to avoid large inequalities, encourage cooperation and collaboration, resolve conflicts and strengthen communities. If people remain cohesive following economic disappointment then the *struggling together* scenario would emerge instead of the least attractive *falling apart*.

The fourth possible scenario is *winners v losers* where economic circumstances remain strong overall but social cohesion falters. There might be high inequality, weak communities and lack of cooperation.

Alongside planning for the base case or successful progress, New Zealand should be well prepared for growing needs in potentially adverse circumstances.

We suggest five retirement income policy priorities to be considered:

- Reduce the expected retirement income gap;
- Diversify systemic and individual financial risk;
- Manage inequality and reduce the number of disadvantaged retirees;
- Encourage individuals to make life choices that improve retirement outcomes; and
- Search for innovations that improve expected retirement outcomes and reduce risks.

2. Introduction

Planning for retirement requires understanding the future context. We cannot predict the future with certainty, but we can anticipate what is likely during the coming decades. When planning, we should make the best use of what can be anticipated, and we should anticipate variations from what is most expected.

This paper aims to provide background information for those conducting the 2013 review of New Zealand's retirement income and for New Zealanders who wish to participate in the consultation processes.

The content will also provide other interested New Zealanders with a perspective on the implications of global trends for the long-term future context for retirement in New Zealand.

We are not retirement specialists but we have experience developing understanding of likely future global, local and industry circumstances and of the implications for strategies and policy agendas.

Our review of global trend literature collected about 350 global trends that were filtered to identify about 80 judged likely to have direct or indirect impacts on New Zealand's future retirement income policy.

We then selected 80 of the trends judged most relevant to retirement and sorted them into five categories: economy, health, population, society and politics. Within each category we arranged the trends to reveal what we judged to be the natural structure of the relationships among trends, and built a story portraying how the trends affect retirement outcomes.

New Zealand's retirement income policy seeks to establish a sustainable balance among eight different objectives:

- Voluntary saving: Encourage personal responsibility, individual choice and control
- Income support: Alleviate old age poverty and hardship
- Well-being: Promote positive and active ageing
- Longevity risk pooling: Share protection against the risk of outliving savings
- Citizenship dividend: Build and maintain social cohesion and national identity
- Lifetime consumption smoothing: Maintain accustomed living standards
- Cohort self-funding: Ensure equity or fairness between generations
- Fiscal restraint and investment: Promote economic growth and efficiency

The 80 relevant trends were grouped into five categories: economy, health, population, social, and political. The trends in each of those categories are described, assessing those likely to continue and considering those whose future is less certain. Finally, some comment is provided about the potential impact of global trends on retirement issues, and we identify five long-term retirement policy priorities implied by the trend analysis.

In the next section, this project identifies trends judged very likely to continue, which forms the base case of an expected future. Trends that are more uncertain have been grouped into four scenarios to facilitate thinking about the impact of whether those trends persist or not.

It is important to understand the past as it will influence the future. However, a simple extrapolation of history is not sufficient for looking forward. The trends identified include some based on extrapolation from the past and others identified by anticipating changes in the future. The outcome period assessed is 2020 to 2040.

Some argue, and we agree, that there is more uncertainty now than there was 20-30 years ago because some global trends are coming up against strains or tipping points that are not

fully understood or controlled. That view is based on the belief that the growth phase that was enabled by freely available resources is ending. Humans will change environmentally damaging behaviours voluntarily or will be forced to change, because we are living unsustainably.

Others believe that great advances in technology will overcome the constraints, and the long-term growth trend will resume. However, it is difficult to identify research programmes with sufficient potential to support the ‘technology will save us’ view given the state of planetary systems and the scale of ecological damage.

Retirement income policy should be robust regardless of which future emerges and it should be adaptable if required when specific scenarios emerge.

The alternative scenarios presented provide a framework for thinking about possible future contexts for retirement income policy. Assessing the potential scenario outcomes enables us to identify which are most and least desirable and identify policy priorities that would protect against adverse consequences of unattractive scenarios.

We suggest five priorities for New Zealand’s retirement income policy, many of which would provide benefits regardless of which scenario emerges.

3. Global trends

Many individuals and organisations develop lists of global trends. We compiled a list of 350 global trends from a wide range of sources.

We then selected 80 of the trends judged most relevant to retirement and sorted them into five categories: economy, health, population, society and politics. Within each category we arranged the trends to reveal what we judged to be the natural structure of the relationships among trends, and built a story portraying how the trends affect retirement outcomes.

The following charts and descriptions identify potentially important relationships. The methodology has identified expected trends. We have not searched for possible surprises or for what might be left out. Many expect disruptive events and technology, but they are difficult to predict. The drivers of each of the dependent variables included have not been studied systematically.

The results blend the combined thinking of others about future global trends with our judgements. Each reader will have his or her own view about the strengths or influences of the trends, and some will disagree with the relationships we have chosen to identify and highlight.

If you disagree with our judgements, or think important variables that will affect relevant aspects of the future have been missed, then please consider whether the changes implied would alter the conclusions drawn at the end of the paper.

ECONOMY

The focus of this paper is on retirement income policy. Many more economic trends are identified than are in the other categories. The economic trends we have judged as relevant have been grouped by how they will affect business-as-usual growth. Each group is discussed separately, and then the overall connections with retirement income are described.

Business-as-usual growth

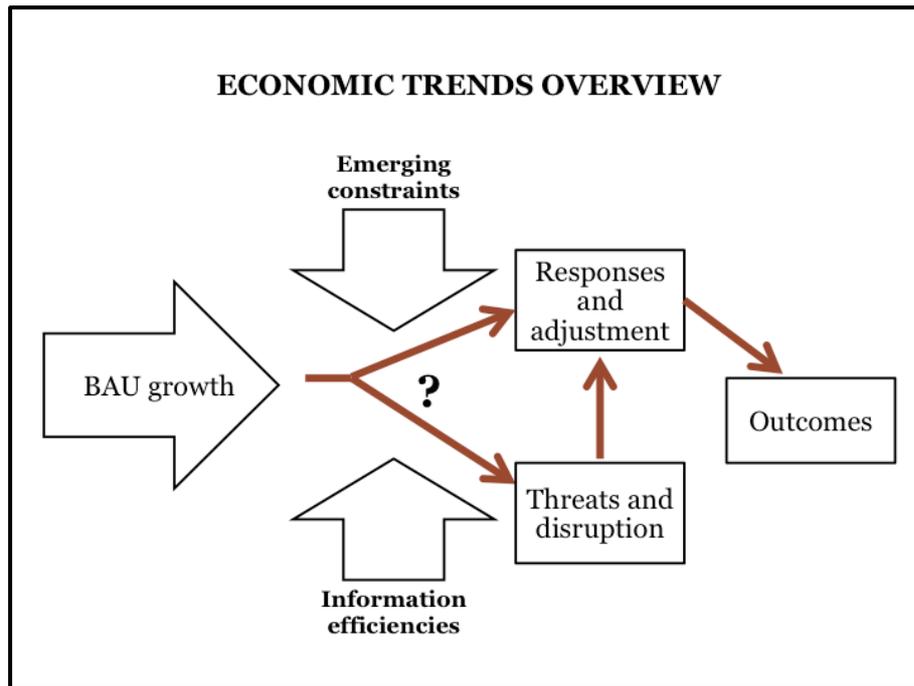
Business-as-usual economic growth will occur through:

- Ongoing globalization, as deployment of existing technologies and advances in telecommunications, transport and the Internet continue;
- Technology, skills and capital transfer to developing countries;
- Innovation and a return to manufacturing focus in developed countries driven by competition from BRICs and TIGERS and by the economic consequences and policy responses to that competition; and
- Infrastructure development and replacement creating jobs and requiring investment.

However, the overall economic trend is likely to be subject to disturbances.

Gains through *information efficiencies* will lead to higher productivity, but they will also reduce employment. *Emerging constraints* will increase costs while *threats and disruptions* will slow growth and create volatility in asset values.

Retirement funding outcomes will be affected by these changes in economic performance so *responses and adjustments* will need to be made to address the retirement savings gap.



Information efficiencies

Efficiencies will be gained through ongoing development of new technologies and advances in computing, communications, information, knowledge, skills, artificial intelligence and robotics.

These efficiencies will lead to performance improvements and to the democratization of technology and knowledge availability. Efficiency gains have already led to cheaper and more accessible technology – Africa has more mobile phone subscribers than either the United States or the European Union (The World Bank, 2012), and India’s Education Ministry recently launched a tablet dubbed the ‘world’s cheapest computer’ that costs about 64 USD (ABS-CBN Interactive, 2012).

The digital divide may be removed as technology becomes cheaper and more accessible for all. Or, increased levels of inequality may make it wider. Perhaps many more people will get access to cheap technologies but many others will be marginalized in failed states or in poverty in other states, unable to bridge the divide.

Advances in teleworking will give many people more options about where they live, regardless of their work. They will be able to work from home locally, and work across the world. The Internet will continue to widen the talent pool that workers can be selected from by connecting job-seekers with employers and online bidding systems for work.

However, information substituting for labour and capital will also cause unemployment and increase inequality. Skill demands may change faster than training supply can deliver. If training programs are not redirected effectively, knowledge and skill shortages will continue to rise, further increasing the cost of skilled labour.

Strong trends will lead to information efficiency gains, and benefits derived from wide access to technology and knowledge. However, information efficiency gains also lead to increasing unemployment, and jobs will be lost to technical advances. It is not clear whether the net results of information efficiencies will be to increase or decrease GDP.

Emerging constraints

Emerging environmental constraints are expected to reduce economic growth as the global economy becomes large relative to the scale of the planet that supports it. Pressures from climate change, resource scarcities (especially food, water, energy and some important minerals) and ecosystem decline are already being seen through declines in productivity, real price increases and the introduction of additional regulations to protect the environment for current and future generations.

Responding to these pressures will cause the economic management emphasis to shift from growth to risk, encouraging popularisation of the green economy and localisation. Localisation will reverse some aspects of the trend to globalisation and will favour goods and services being provided locally where possible.

If the expectation of increased environmental constraints is correct, the shift to managing risk will be crucial for reducing the threat of overshoot and collapse. If the expectation is wrong, and growth is faster than expected, the outcomes might be better than expected, or the overshoot crisis might emerge later but be more severe.

Threats and disruptions

Struggling economies, low levels of saving and high borrowing in developed countries have contributed to a widening gap between what is required to fund retirement and the available savings. The aging population means future retirement income needs are growing, but responses are not yet sufficient.

Economic adjustment in response to slower growth, risks in the finance sector and the risk of asset price collapse are likely to reduce the expected capacity for savings accumulation.

If, as expected, longevity continues to increase and structural pressures lead to reduced capacity for savings, retiree income needs will increase and demands on government will be greater.

Government capacity to fund retirement incomes is likely to reduce. Raising taxes or doing more with less can increase government capacity, but raising taxes in difficult economic times is especially troublesome. Governments are already trying to create more efficient and effective systems that will require less fiscal capacity.

Efficiencies can also be gained by community enablement, reducing waste and reducing need. These steps provide benefits beyond improving retirement income by reducing the ecological footprint, promoting social cohesion and reducing inequality.

The result of high inequality and poor economic circumstances is political pressure for change. Historically, political pressure for change may result in a targeted reduction in inequality (e.g. through modern welfare or Roman grain distribution), a revolution that reduces inequality but does not immediately fix the economy (e.g. as in France, Russia and China), or the disadvantaged may be unable to provide for their needs so the population declines (e.g. as in Russia more recently).

As people confront the possibility of a world where growth does not provide consumption benefits for those with the lowest incomes, an increased focus on inequality is emerging. Inequality gaps may emerge in financial means, skills, technological competence and health.

Responses and adjustment

With business-as-usual unlikely to continue, governments are likely to identify who is not adequately covered and respond to the unmet need.

Financial innovation in schemes and investments may be implemented to reduce the savings gap and address inequality. The demographic composition of the population and employment levels will greatly impact government policy and how governments establish retirement income schemes.

Retirement funding outcomes

Retirement income funding patterns depend on overall economic performance, how funds are distributed and to how many people, and how adaptive the system is. The outcome is how retirees are looked after. How retirees are looked after affects their health, which influences their financial needs.

If the system is working well, adaptations should occur as economic performance and demand for retirement funding change. Retirement income policy must recognise the need for an adaptive system to ensure New Zealand is able to respond to unexpected outcomes (Baker, Purnell & Reeves, 2012).

Timing of responsiveness is crucial because of the inherent lag in adaptation. It is not sufficient to wait for a problem to emerge before responding, as slow responsiveness risks periods when retirement needs and funding are not matched.

HEALTH

Technology and lifestyle improvements are leading to healthier people and older people. There are several trends contributing to increased longevity and greater demand for retirement funding.

Ongoing improvements in medicine, science, biotechnology, nutraceuticals and personalized medicine are leading to advances in treating illnesses, and allowing a shift from treatment to prevention. The rising trend of medical tourism is increasing the availability of treatments for those who can afford them.

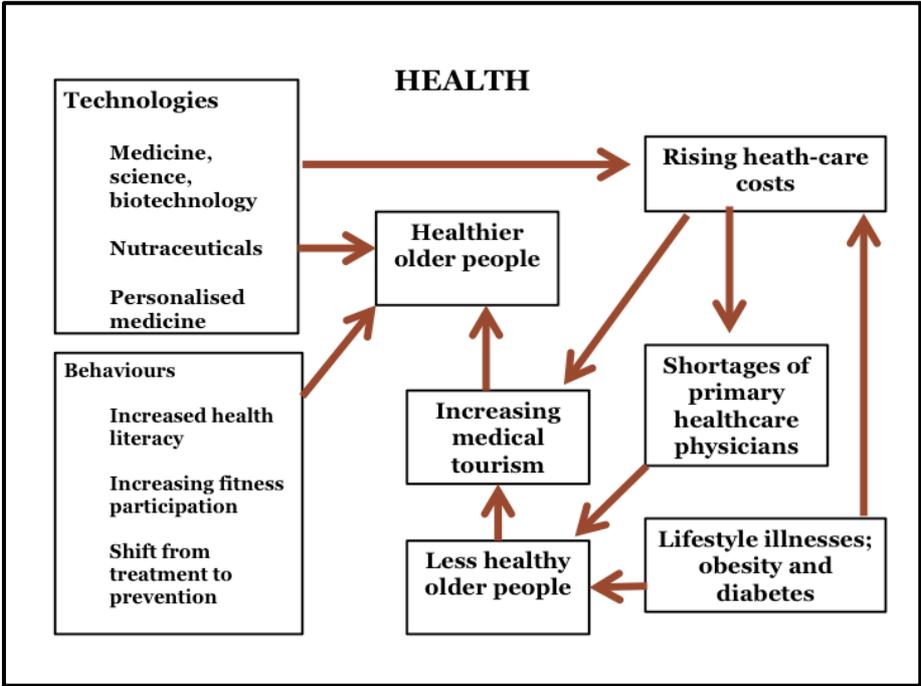
Increasing health literacy and fitness participation is extending longevity for some, but poor dietary and behaviour choices are leading to rising levels of lifestyle related illnesses such as obesity and diabetes for others.

Longevity has long been increasing but it is unclear whether that will continue on trend or if there will be diminishing returns. Longevity will have a big effect on how many retirees need to be supported.

Rising healthcare costs and shortages of primary healthcare physicians will increase health inequality. Costs will rise from the availability of new expensive technologies and treatments, and from the aging population. Smart and innovative approaches to healthcare could make a difference to the reach and efficiency of health services. Americans spend about 20 times more on healthcare per capita than Cuba does, but achieve similar longevity (WHO, 2013). Cubans have more healthy lifestyles and Cuba has ubiquitous high quality primary healthcare that is seen as a cost to keep down and not as an opportunity for profit, which would encourage healthcare industry growth.

Unemployment rates are relatively high and information efficiencies may result in further increases. There is potential for employment growth in healthcare and aged care to at least partially offset unemployment pressures.

Advances in technology may enable people to remain in the workforce longer. An understanding of the kinds of work that will be available is important to develop processes for effectively retraining people for different kinds of work throughout their careers.



POPULATION

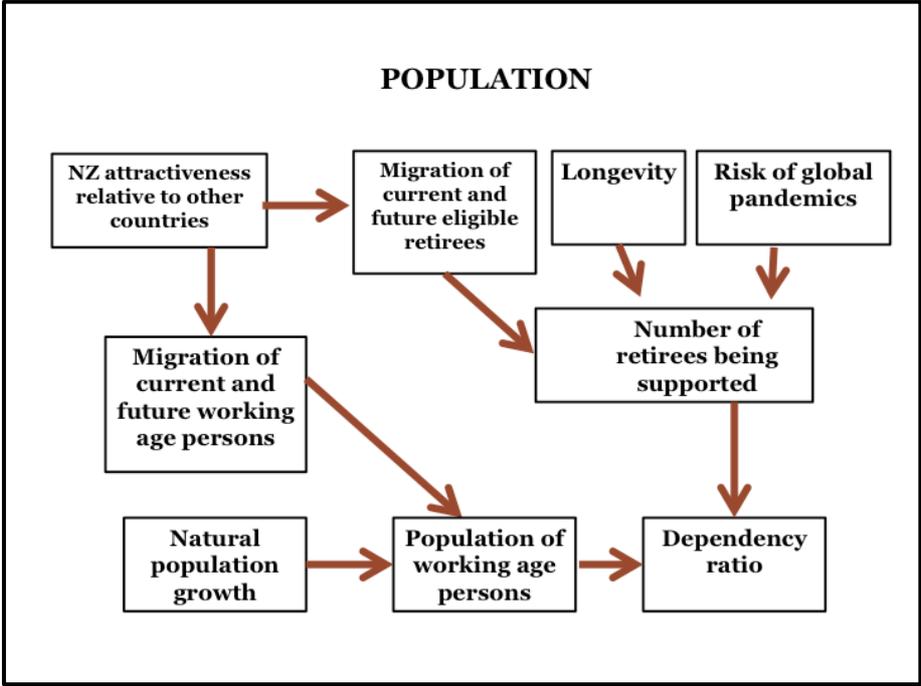
The global population is growing, aging and becoming more transient. Natural population growth is forecast to slow, but populations will continue to grow through births, migration and by people living longer. There are also important risks from environmental constraints that might cause population growth to slow further or reverse during the period considered in this paper.

It has been becoming easier for relatively affluent people to move around, for both travel and migration. The relative attractiveness of a country and its migration policy will in part dictate the population of retirees it supports. New Zealand has been losing skilled citizens to Australia and other countries so migration policy has focused on attracting skilled replacements.

The number of working age persons compared to the number of retirees produces the dependency ratio. The working age population size results from natural population growth, retaining population, working-age inward migration, unemployment and the retirement age.

If environmental pressures make other places less attractive, New Zealand may become a relatively more desirable place to live. Rising energy costs, improved communications and changes in environmental values are likely to reduce travel. Walls, fences and electronic monitoring are being installed to control migration from Bangladesh to India, from Africa and the Middle East to Europe, and from Mexico to the USA.

Policy choices can influence the age composition of the population and the dependency ratio, where expatriates may retire, and who will fund infrastructure needs and retirement income if migrants return in large numbers.



SOCIETY

Definitions of family, households and other social structures are changing, and family forms are becoming more diverse.

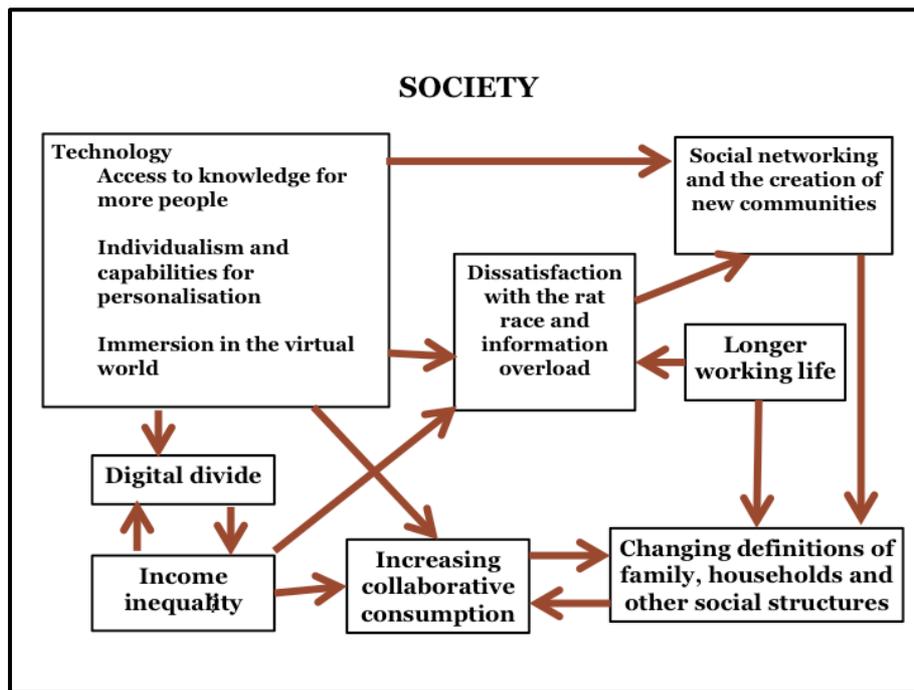
Technology is a major driver in society. Communities are less bound by geography than they were, and social networking enables the creation of new communities. People are spending more time immersed in the digital world, however many are becoming overloaded by the vast quantity of information and are dissatisfied with the fast-paced ‘rat race’.

Widespread availability of technology is giving more people access to more knowledge, and it is increasing collaborative consumption. Renting, lending, swapping, bartering, gifting and crowd sourcing are taking place in ways never before possible and at a scale larger than ever before. Technology is also enabling individualization and provides capabilities for personalization such as through the ability to manufacture one-off items cost-effectively.

However, until and unless access to technology is ubiquitous, the digital divide may continue to widen, even if the portion of the population it affects is smaller. Leaving people behind on the digital journey will further increase inequality in income, technical competence and skills.

Ongoing high unemployment will also lead to income inequality increasing further. The gender income gap has been narrowing but if high unemployment continues it may become more difficult to eliminate the gap.

With ongoing economic growth and a society that is not cohesive, there is potential for conflict. People may become more separated from one another by physical and security barriers. Greater inequality would be likely to lead to a larger population of people needing support, with attendant friction and costs.



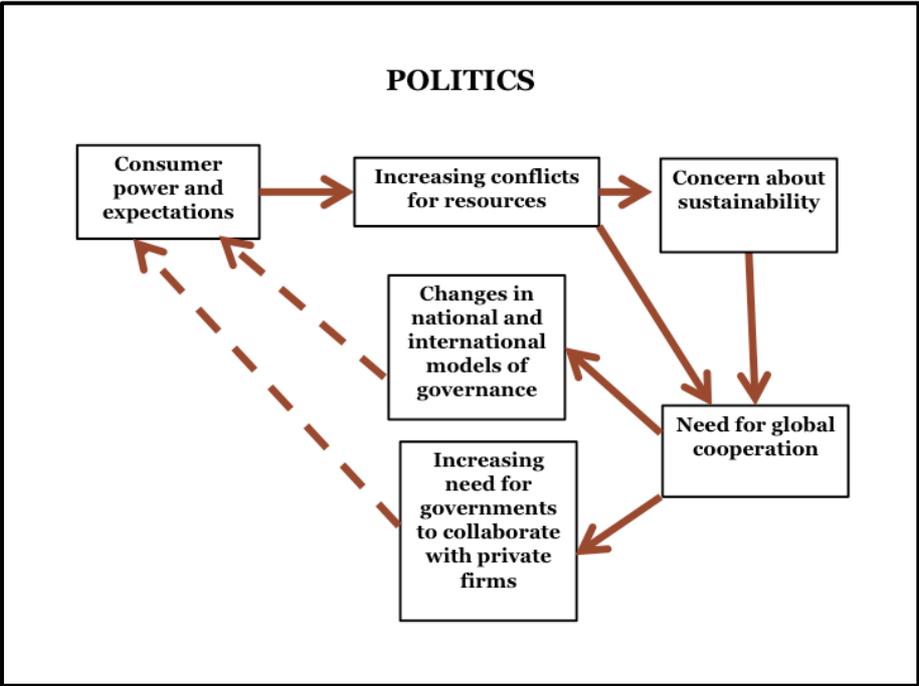
POLITICS

Increasing consumer power and expectations are leading to consumption aspirations that imply drawing on more of the earth's resources. As resources become more constrained, real prices for energy, food, water and materials rise and sustainability concerns increase. The issues cannot be solved if just one party limits its resource use, as others would continue to grow and draw down scarce resource stocks anyway. The solution depends on collective action and the issues are global so the need for global cooperation grows.

There is strong motivation to rectify resource constraint and climate issues to avoid environmental destruction and/or wars over resources, but collective action on a global scale spanning many cultures and economic circumstances is proving very difficult to organise.

Changes in national and international models of governance are already being seen through water treaties and attempts to form climate agreements and ocean policies. Governments with financial difficulties are more motivated to collaborate with more efficient private firms to get policy outcomes, while firms are motivated to work with governments by opportunities to make investments and earn profit.

At the heart of the challenge is the size and growth of the global population and that most consumers want more and more, not just enough. If consumer powers and expectations are altered, values may change so that satisfaction and pleasure are derived not from consumption, but from less material motivators such as strong and secure communities, beautiful vibrant shared spaces and cultural richness.

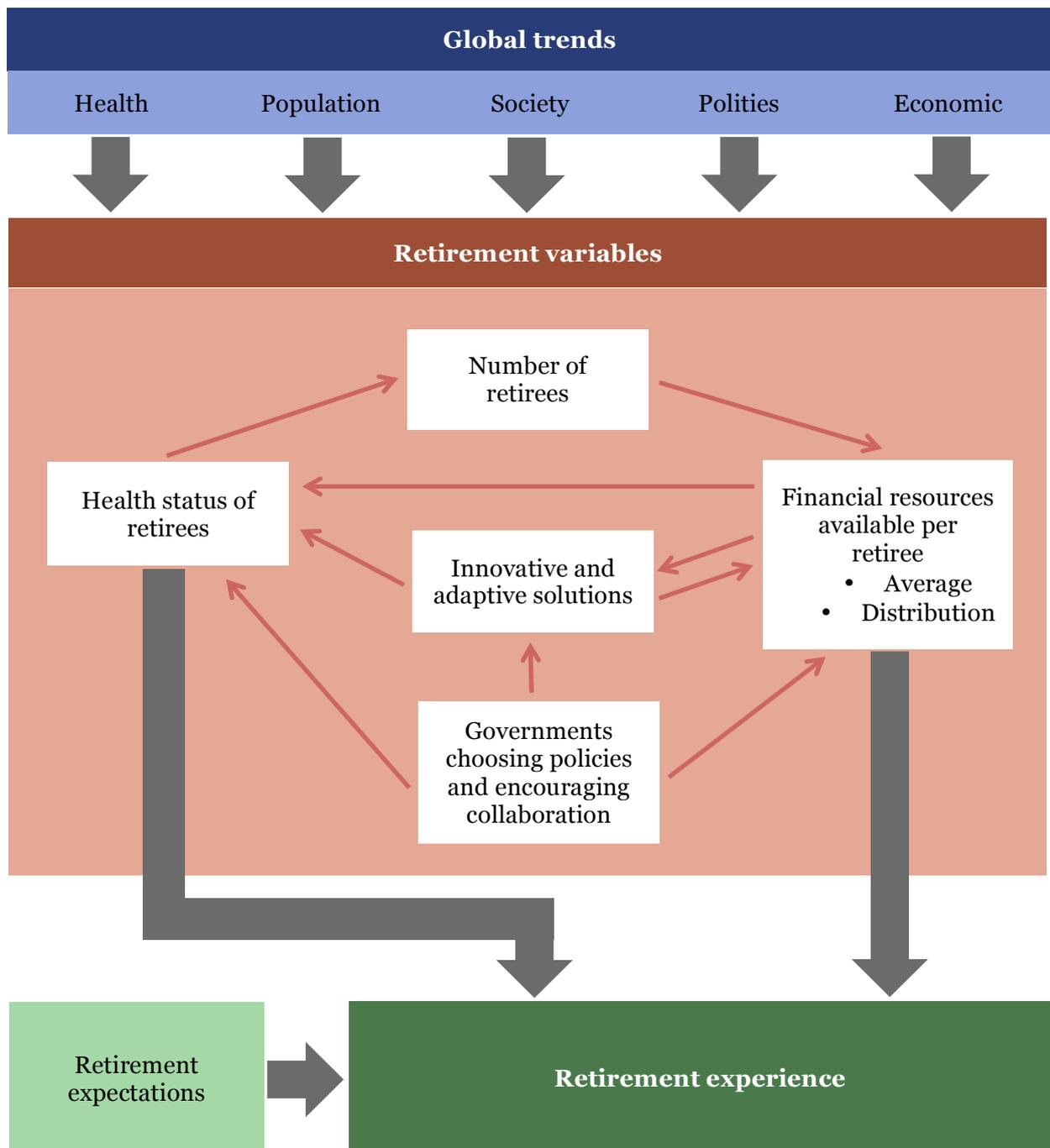


4. The retirement arena

The retirement experience is influenced by how well prepared retirees are, how they expect to be treated, and how they are treated. Global trends will impact both how well prepared retirees are and how they are treated.

With global trends largely out of New Zealand's control, innovative and adaptive solutions and managing expectations become central to how retirement income policy can best adapt to influence the financial, health and social inputs retirees receive.

The number of retirees at any time will be in part determined by the health status of retirees. Government policies will influence the health status of retirees and the funding pool available.



5. Future context for retirement income policy

The future is too complex to be predicted with certainty. To prepare for the future it is useful to think about the range of possible outcomes. A framework for understanding the probable and possible outcomes helps to identify strategies to mitigate risks and take advantage of opportunities that remain robust whichever future emerges.

We have judged that many trends are likely to continue, allowing us to imagine characteristics the future is likely to hold for us. The scenario development method we use identifies a ‘base case’ description using the trends that are judged to be likely, and a set of scenarios describing possible futures using the trends we think are uncertain.

The purpose is to provide a foundation for identifying robust effective responses for various future possibilities, not to plan for a single point outcome only. Even for trends judged to be very likely, the timing is uncertain, and surprises can occur too, especially from technologies, war and pandemics.

BASE CASE

Trends likely to continue
ECONOMY
Shifts in distribution of economic purchasing and bargaining power between nations
Ongoing risk of asset price collapse and systemic risks in financial sector
Increasing demands on land, climate, water and food leading to resources becoming important constraints and resulting in rising real costs
Changing climate and increasing related risks, declining status of habitats, species and ecosystems
Increasing need for infrastructure build and replacement
Ongoing advances in computers, robotics, communication, education and diffusion of technology
Digitisation – electronic delivery of goods and services
Increasing teleworking
Increasing rates of financial literacy
HEALTH
Ongoing advances in medicines, life sciences, healthcare innovation, science, biotechnology, nutraceuticals, standardisation of healthcare protocols and technology
Healthcare shifting from treatment to prevention, and increasing medical tourism
Soar in demand for healthcare in emerging economies, shortages of primary health physicians
Increasing rates of health literacy and higher leisure and participation rates
Rising lifestyle related illnesses
Ongoing risk of global pandemics
POPULATION
A growing and aging world population
SOCIETY
Changing definitions of family, households and other social structures
Growth in social networking and the creation of new communities
Increasing immersion in the virtual world
Improving access to knowledge for more people
Increasing length of working life
Increasing concern about sustainability
POLITICS
Increasing conflicts for resources leading to increased need for global cooperation
Changes in national and international models of governance
Increasing need for government to collaborate with private firms

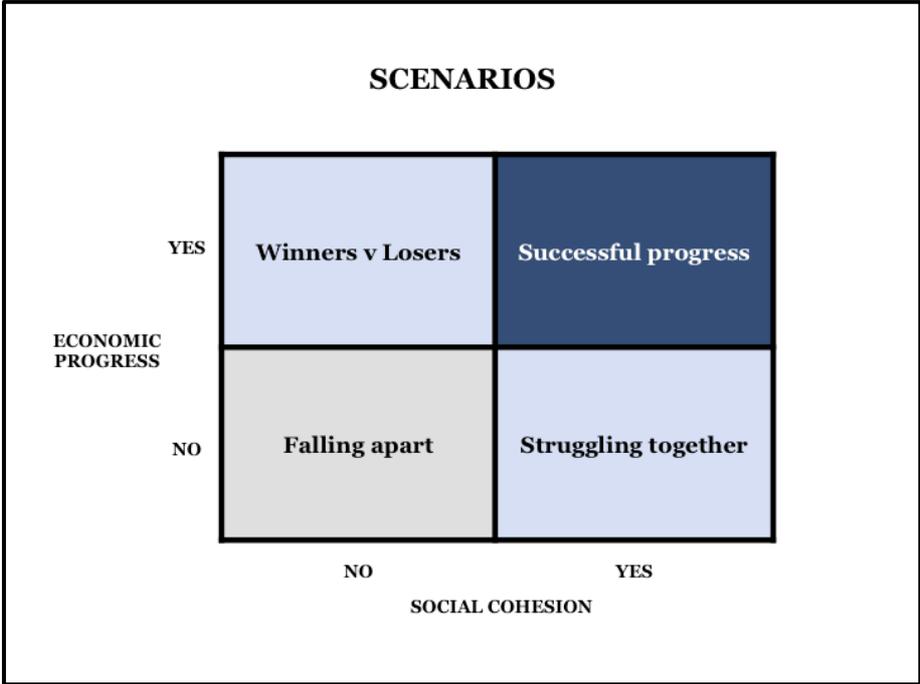
UNCERTAIN TRENDS

Trend	Expected outcome	Possible outcome
ECONOMY		
Increasing globalisation	Globalisation continues	A rise in localisation
Increasing prosperity and consumption	Return to recent trend	End of the growth phase
Increasing consumer power and expectations	Trend continues	Economies falter, environment erodes and values change
Ongoing global economic growth, forecast to slow	Trend continues but slowed growth	Environment constraints lead to end of growth phase
Increasing skills shortages	Trend continues	E-learning democratizes learning and leads to skills surpluses
Increasing privatization	Government sells assets for cash or ideology	Privatisation trend ends
Uptake of alternative investment vehicles	Continuation of product proliferation trend	Disillusionment with financial services industry
Increasing suburbanization	Trend continues	Energy and infrastructure costs, and demographics drive up urban densities
Growing role of philanthropy in preventing and treating diseases	Increased social pressure on rich	Economic decline reduces funds available, social pressures reduce
Widening retirement savings gap	Preference for short-term consumption growth and politically motivated policy change delays	Vigorous policy change. Pandemic or other major disruption
Alternative approaches to retirement savings schemes	Ongoing financial product innovation – e.g. reverse mortgages	Consolidation of savings instruments, simplification and/or contraction
Collaborative consumption	Increasing because of economic pressures, technology development and community efforts	Resurgence of individualism, fragmentation, transactional approaches and lack of trust.
HEALTH		
Rising healthcare costs	Trend continues	Research breakthroughs from individual genomics, stem cells etc. and/or policy changes
Increasing healthcare expenditure	Ongoing cost increases	Health costs become unaffordable and/or cost-effectiveness improves dramatically
POPULATION		
Increasing life expectancy	Continuation of trend	Diminishing returns or economic decline
New migration patterns	Economic migration continues with emergence of local environment and conflict migrations	Migration restrictions, more walls and fences supported by technology
SOCIETY		
Ongoing high unemployment in advanced countries	Slower growth and capital substituting for labour	Work sharing
Increasing transience	Globalisation and disruption	Reversal of some aspects of globalisation and communities strengthen
Digital divide	Divide continues to widen	Cheap technologies for all
Increasing dissatisfaction with the rat race and information overload	Trend continues	Social and technical situation may change during time horizon
Increasing income inequality	Trend continues	Too much inequality in adverse circumstances leads to large scale social and political change
Narrowing gender gap in employment	Trend continues	Steady state reached where gap is closed or progress stops
Increasing privacy and confidentiality concerns	On-going info. collection, intrusion for security reasons & technology race	Privacy & security become ubiquitous via encryption & avatars or regulated transparency increases as in Estonia (EESTi, 2013)
Increasing individualism and capabilities for personalization	Technology enables	Privacy/secretcy backlash
Increasing collaboration	Trend continues	High levels of contention and conflict

In the table we have presented what we believe to be the mainstream expected outcome of little impact on economic welfare from environment constraints. Our view (Boven, Harland & Grace, 2012) is that risks from environment constraints are more likely and more threatening than is currently being anticipated by decision-makers, their influencers and the general population.

SCENARIOS

To identify scenarios, uncertain trends are grouped into the two most important dimensions by judgment. The two dimensions together create a two-by-two matrix defining four scenarios. The base case trends are assumed included for each scenario.



SCENARIO: BASE CASE + SUCCESSFUL PROGRESS

The best scenario sees both economic progress and social cohesion. Ongoing global economic growth translates to increasing prosperity and consumption for everyone, with low inequality and high collaboration.

Efficient and trusted collaborative consumption is widespread and alternative investment vehicles have been successfully implemented. Philanthropy plays a large role in preventing and treating diseases.

Skills needs are met and the unemployment rate is low. Gender equality is widespread and valued.

Individuals are happy and successfully manage the flow of information and overall work-life balance. Everyone has digital access and feels privacy and confidentiality concerns are well managed. Travel is accessible.

This future is most desirable. People are happy and relationships are largely harmonious. Governments and individuals have money so when issues arise they can afford to deal with them.

SCENARIO: BASE CASE + WINNERS V LOSERS

The *winners v losers* scenario combines economic progress with low social cohesion and the growth of disadvantaged population segments.

Ongoing global economic growth has led to increasing prosperity and consumption for many, but inequality is increasing and widespread.

Skills needs are met but unemployment rates are high and consistent, with gender inequality increasing and widespread.

Some people have access to collaborative consumption tools and alternative investment vehicles. Philanthropy to prevent and treat diseases has little effect. Few people are able to travel.

The digital divide is widening and showing no signs of reversing. Some people cannot access connectivity and information, and for many it is difficult to manage privacy and confidentiality. Individuals are dissatisfied with the rat race and many feel overwhelmed by information.

With ongoing economic growth but a society that is not cohesive, there is more potential for conflict. People will be more separated from one another by physical and security barriers. Greater inequality may lead to a larger population of people needing support, with attendant friction and costs.

In this future, implied priorities are to ensure the best possible sustainable economic conditions, develop social cohesion and harmony, limit inequality so there are few disadvantaged people requiring support, and provide a safety net via the most affordable and fair methods. Heterogeneous societies like New Zealand also need to put more effort into multiculturalism than more homogenous societies, especially when under social pressure.

SCENARIO: BASE CASE + STRUGGLING TOGETHER

In this scenario economic progress has stalled or been deliberately slowed to reduce environmental risks, yet society remains cohesive. Declining global economic growth has led to increased poverty but income inequality is low.

Unemployment is low and gender equality is valued and widespread. However there are shortages of essential skills.

Alternative investment vehicles have not been deployed, but collaborative consumption motivates cooperation among individuals and provides a mechanism for 'making do'. Travelling has become too expensive for most people. Philanthropy plays a large role in preventing and treating diseases.

Digital tools are widespread and privacy and confidentiality concerns are managed well. Individuals maintain successful information management and a desirable work-life balance.

These are difficult times for all, yet there is a positive spirit and strong communities throughout the nation. Priorities are to lift economic performance and to train people in the skills in short supply.

SCENARIO: BASE CASE + FALLING APART

In the falling apart scenario global economic growth has stagnated or reversed and society is greatly fragmented. The decline in global economic growth has combined with environment damage to cause increased poverty, and income inequality is increasing and widespread.

There is little use of collaborative consumption tools and a failure to deploy alternative investment vehicles. Philanthropic assistance for preventing and treating diseases is having a minimal effect. Travel is too expensive for most people.

Skills shortages are widespread yet there is high and consistent unemployment because individuals are not appropriately trained or located for the jobs available. Gender inequality is increasing and widespread.

The digital divide is wide and showing no signs of reversing. It is very difficult to manage privacy and confidentiality.

This unappealing situation is best avoided, but global trends largely outside New Zealand's control may lead to this scenario.

Priorities are to minimize the risks and impacts from adverse global trends by building a resilient and diverse economy and by investing in efforts to build social cohesion and develop a sense of national pride and community.

6. Implications for retirement income policy review

The conventional view of our future is for a resumption of economic growth with improving prosperity for all. If that future is realized then retirees are likely to be in good situations. However planning should take account of uncertainties unless we can be confident that the most desirable scenario will emerge. Our analysis implies that we cannot be sure that the future will be as desirable as we hope so it is prudent to have policies that provide for the best possible outcomes if unattractive scenarios emerge instead. Important risks should be insured against in a low cost way.

For the best possible future for New Zealand for retirees to live in, economic progress and social cohesion should be societal goals, along with environmental sustainability. Without environmental sustainability economic progress will falter. The New Zealand Treasury has recognised the need for broader societal goals by focusing not just on economic progress, but also on the standard of living of New Zealanders (The Treasury, 2012).

Retirement policy has had a focus on retirement income and it encourages the efficient and effective accumulation of a capital asset whose yield can fund retirement living, reducing the growth of the future requirement for government subsidies that would otherwise occur because of the increase in the dependency ratio.

Our exploration of future trends suggests a wider agenda with five high-level priorities:

- Reduce the retirement savings gap
- Diversify financial risk
- Manage inequality and reduce the number of disadvantaged retirees
- Encourage life choices that improve retirement outcomes
- Innovate

Future economic progress is uncertain and largely not controllable by New Zealand. But New Zealand's retirement income policy can manage and reduce associated risks. *Reducing the retirement savings gap* and *Diversifying financial risk* will provide a strong financial base.

Strong incentives to stay out of the bottom left 'Falling apart' global scenario imply investing in social cohesion in New Zealand is essential to avoid the worst risks and effects. *Managing inequality and reducing the number of disadvantaged retirees* can create a society that is more resilient and will unite to tackle issues together.

Despite best efforts to manage economic progress and social cohesion, important outcomes will remain influenced by variables partly outside of Government's control - notably the health and financial status of individuals. It is prudent to *encourage life choices that improve retirement outcomes*, and resilience, so that individuals have reduced needs for support and can self-manage as much as possible.

Some future retirement issues can be anticipated but experience teaches that multi-decade timeframes imply surprises will occur and unexpected trends will emerge. Effective responses to changing conditions imply strong capability to develop *innovative and adaptive solutions*.

REDUCE THE RETIREMENT SAVINGS GAP

Most research and debate about retirement in New Zealand seems to be about how to ensure there will be sufficiently large assets and income streams to meet the needs of retirees in the future. Reducing the expected retirement savings gap should remain at the core of the policy

agenda. Stronger financial provisioning for retirement improves outcomes for retirees, reduces future costs for others and reduces the risks from unforeseen events and trends.

Our contribution is to highlight that the future is not likely to be a simple extension of past trends and that uncertainty has increased, so the future may not be as people expect.

Developing status assessments and encouraging public understanding and dialogue to highlight and build support for policy options to improve future retirement income outcomes can improve retirement savings gap outcomes.

Increased saving and higher returns on retirement savings, providing for expected demographic changes and the resulting infrastructure needs, developing plans to respond to longer lives and rising health costs, and addressing future affordability issues are worthy current goals.

DIVERSIFY FINANCIAL RISK

There are good reasons to believe the global growth phase is coming to an end so the next few decades may have slower or negative growth. There is on-going risk to expected asset values and therefore to the sufficiency of retirement savings.

When economies falter governments find it difficult to raise sufficient taxes to pay for the services people want and need so pay-as-you-go universal retirement income funding at current levels could be at risk.

In New Zealand many people have the bulk of their retirement savings in a single asset, their home, and many others have insufficient savings so expect to depend on future government support. In future, many people are likely to be financially dependent on KiwiSaver accumulations. Some people have their income and their asset accumulation in their business so if there are issues with the business that they own or that employs them, their savings are at risk too.

Having a very large proportion of future retirement income from a single source exposes people to concentration risk, if that source is threatened. Thirty to 50 years is a long time to assume continuation of current conditions and absence of economic or financial disruption.

As a system and at face value, the New Zealand retirement savings arena seems quite diversified. Home ownership, government's pay-as-you-go scheme, KiwiSaver, NZ Superannuation Fund and private savings schemes combine to diversify aggregate financial risk.

The portfolio of savings instruments, while superficially seeming well diversified, seems to be the result of an accumulation of diverse policy initiatives designed to reduce the retirement savings gap rather than the outcome of a deliberate strategy to manage concentration risks.

New Zealanders were taught a hard lesson about the importance of managing concentration risk when the UK entered the European Union more than 40 years ago, dramatically reducing agricultural export receipts and harming the economy.

Long timescales, uncertainty and high stakes combine to imply a need for systematic diversification to limit retirement saving risk at both national and individual levels. Concentration of asset holdings in a single asset, with a single institution or in a single asset class creates risk that can and should be reduced.

MANAGE INEQUALITY AND REDUCE THE NUMBER OF DISADVANTAGED RETIREES

Global circumstances and expected trends imply that continued economic growth providing on-going increases in wealth and consumption cannot be assured. That implies a need for caution when assuming that future wealth increases will take care of current and future retirement income needs.

If everyone had identical incomes in retirement then it might be reasonable to conclude that the aggregate provisions for retirement, when shared, would ensure no one was living in deprived circumstances. If retirement incomes were very unequal, and nothing else changed, that would increase the proportion and number of the retirees living in deprived circumstances, increasing hardship and welfare costs.

New Zealand has dealt with difficult economic conditions causing social difficulties during the early 1990s and again at present. Further, inequality in New Zealand has increased during the last few decades and many youth are finding it difficult to successfully transition from school to work. The social and economic effects of disadvantage can be durable and be passed from generation to generation meaning there is a portion of the adult population who will be less well prepared, financially and socially, for their retirement years.

Today's retirees are less affected by these risks. New Zealand's current retiree population is well provided for relative to other populations in New Zealand, children for example, and is also well provided for relative to retirees in other advanced economies. Future generations of retirees may include larger numbers of disadvantaged people requiring more income support than is currently expected.

If economic conditions become more difficult, it could be harder to fund assistance for disadvantaged retirees, resulting in suffering, conflict and deaths. One precautionary response would be manage inequality to prevent the emergence of a large vulnerable group of retirees.

Too much inequality is harmful and too little may remove or reduce valuable incentives. In New Zealand though, inequality is not explicitly treated as a directly managed outcome. For example, job creation is seen as a worthwhile end in itself and also, if successful, as a means to reduce inequality. Inequality is an outcome from other policies and circumstances.

Through policy choices a Government can directly affect income inequality outcomes. Government's taxation, income support policies and budget decisions can produce any desired level of income inequality and the historical inequality statistics for New Zealand reveal the effects of past government policy choices. Education can also play a central role in reducing inequality in all its forms – skills, financial means, technological competence and health.

There is generally a low correlation between inequality and economic growth. Many countries with low inequality perform well economically.

The need to support more disadvantaged retirees in tough fiscal circumstances may lead to focus of government retirement income support on those most in need, implying a return to government funding as a safety net rather than as retirement income support for all.

ENCOURAGE LIFE CHOICES THAT IMPROVE RETIREMENT OUTCOMES

When pensions were introduced, most retirees were not dependent for very long before they died, and they were more embedded within their extended families than retirees are today. Financial asset accumulation was not as important as it has become.

Note that in this context we are including housing assets as financial assets, although that is not the conventional definition. Many people build housing assets with the assumption that the house can be converted to cash and the retiree can rent.

Today's smaller household units and longer lives make individuals more dependent on their own financial resources.

Most people begin retirement with a relatively fixed pool of assets and income entitlements.

The retiree's planning challenge is how to have a long healthy, fulfilling life within the resources available. The difficulty is that retirees do not know how long they will live and therefore at what rate to consume their savings and entitlements. Decision-making is made even more difficult by risks to asset values and income security.

If retirees run out of money there are adverse consequences for themselves, their relatives and for the state, which is expected to fund the safety net. We have a collective interest in the robustness of the financial, social and physical systems that support retired people. Threats from retirement savings gaps and economic disruption suggest a search for non-financial ways to mitigate risk.

Life choices can contribute to longer, healthier lives and reduce risk. Active people live longer than less active people. Many active healthy people avoid major health issues and the accompanying costs until the last year of their lives. Living simpler and healthier lives preserves financial resources and reduces risks. Policies encouraging collaborative living and collaborative consumption could help keep people connected and active.

Information should be widely available to assist retirees to make life decisions using integrated behavioural, health, social, actuarial and financial inputs. Engaging and educating people well before they reach the age of retirement could help avoid large mismatches between current expectations and likely futures.

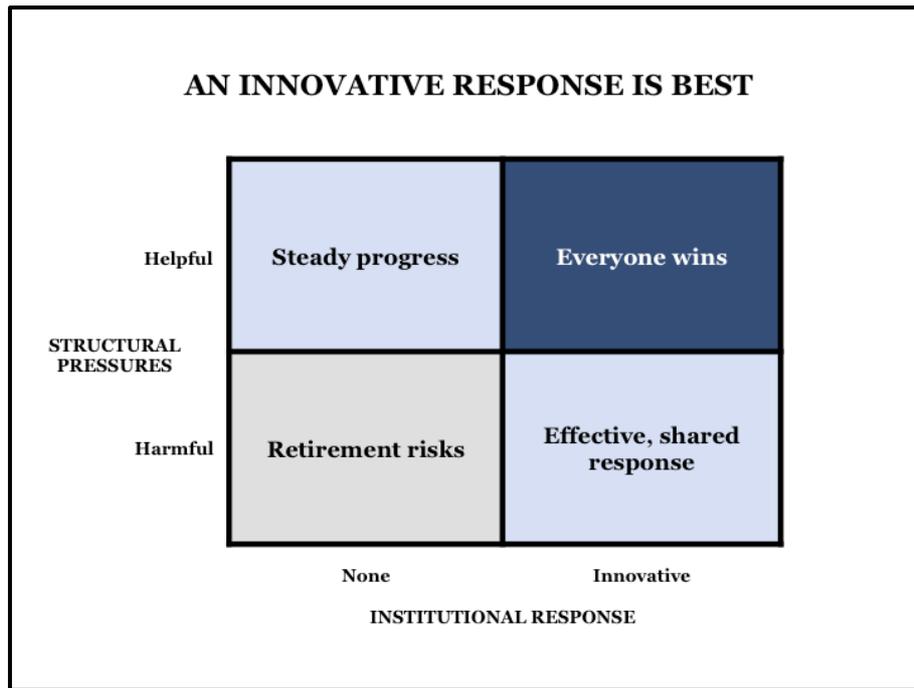
INNOVATE

Many of the structural pressures on the retirement arena are expected to be harmful.

Healthcare costs are expected to rise along with increasing healthcare expenditure. A preference for short-term consumption growth and politically motivated policy delays might widen the retirement savings gap. Justifying delayed policy responses by assuming future income growth is a risky strategy.

Life expectancy is expected to continue increasing, and migration trends are likely to bring more migrants to New Zealand. These two trends imply that retirement income policy is likely to need to cater for more many retirees.

Regardless of whether the net result of the structural pressures is helpful or harmful, an innovative institutional response is preferred over a weak response.



The trend analysis revealed only two trends that might inform the search for innovation opportunities. Collaborative consumption appears to be a topic worth investigating to find out how it could reduce costs and risks for retired people. It is often facilitated by technology and is growing rapidly. Increased collaborative consumption and community development would contribute to weakening individualism, though individualistic values have become very strong recently and are likely to persist over the timeframe we are considering.

The second trend is “innovation in financial instruments”. The obvious relevant example is reverse mortgages, where retirees borrow an income while accumulating a debt that will be repaid when their houses are sold, after they die. There must be other useful financial instruments to be discovered, or identified and deployed

An example that combines collaborative consumption with introducing new financial instruments might be “longevity clubs”. A retiree faces two important related risks, dying young and outliving financial resources. The retiree either will or will not die young and will have less need for financial resources if death is earlier than expected. If a retiree dies earlier than expected there should be a surplus of financial resources relative to what was expected. Those resources could be available to support a retiree who lives an unexpectedly long time and outlives financial assets.

What is required is to pair up the early with the late deaths but that is not possible in practice. It is not possible to know in advance whether a person will be an early or a late death. That means you might pair up two late deaths or two early deaths.

Forming a longevity club with many retirees would overcome the pairing problem. With a large enough club, some members would die earlier than expected, leaving a portion of their wealth to the club to fund the later retirement income needs of those members who die later than expected.

This may not be a new idea, and it may have some fundamental flaw, but it illustrates the potential to develop retiree-oriented financial instruments using collaborative consumption to manage risk.

An active search for innovation opportunities should be guided by necessarily incompatible principles such as “understand the emerging needs and design new financial products to meet them”, “avoid the ‘bleeding edge’ where costs and risks are high” and “copy and learn from others where possible”.

7. Conclusion

New Zealanders have a common interest in the well-being of retirees both because we should expect to be retired and because we should want to avoid the financial and social consequences of under-provisioning.

Retirement income planning has a very long time horizon. It has been based on the assumption that the future will unfold as a continuation of past trends, and focused on asset accumulation to address the expected increase in the dependency ratio.

Our analysis of trends reveals that the future is not likely to be an extension of the recent past resulting in emerging risks that could threaten asset values and future retirement incomes. Policy should not be based on assumptions that past trends will continue – it is unlikely that they will and the risks are high.

Risks and policy options that stem from global and external trends are difficult to forecast and nearly impossible for New Zealand to influence. However there are important risks and options that lie within New Zealand, which can be addressed.

Managing inequality and having an educated and adaptable workforce can establish good conditions. Specific policies can be pursued for information flows and uptake relating to skills, financial literacy, technology competence and lifestyle choices.

In response we suggest five retirement income policy agenda priorities be considered:

- Reduce the expected retirement income gap;
- Diversify systemic and individual financial risk;
- Manage inequality and reduce the number of disadvantaged retirees;
- Encourage individuals to make life choices that improve retirement outcomes; and
- Search for innovations that improve expected retirement outcomes and reduce risks.

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