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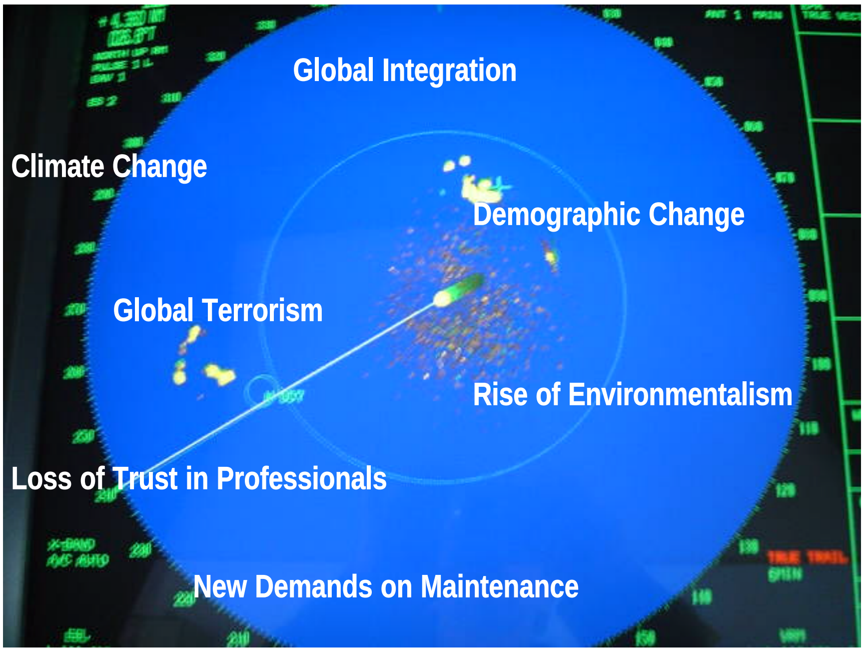
The Future of Asset Management
What's on Your Radar?



Although we are frequently surprised by the speed with which things happen, rarely can we say 'we had absolutely no idea', for the future does not come unannounced. We can see now some of the things that are likely to be more important in the future. I don't say that I have got them all, but these at least should be on your radar.

I have given some of the early warning signals, your task is to look to the implications (I have suggested some)

Apologies: The interview with Aubrey Joachim on Sydney Water's experience with Beyond Budgeting will appear in the next issue.

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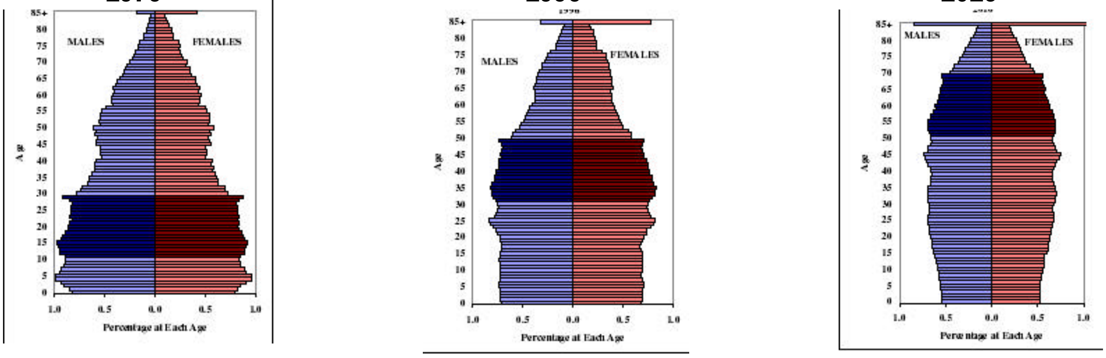
What Will Be
The Asset Management Challenges of Tomorrow?

In this issue I look at seven topics and their likely impact on asset management in general. You will know better how they may affect you. In some cases tomorrow is not very far away, a matter of a few years or sooner; in others it may be ten years or more. However, experience show, the future gets here sooner than we think, so the time to plan is now!

The first section on Demographic Change is from "Four Dimensions of Population Ageing" 2004 by Natalie Jackson which you will find, in its entirety, at *http://www.dasu.tasbis.com/* *(see also SAM Issue #)*

Demographic change

1976 **1996** **2016**



Source: ABS

Over the next several decades Australia's population and, indeed, that of all developed countries will age significantly. This ageing has two technically different dimensions – numerical ageing (primarily caused by high/increasing life expectancies which increase the *numbers* of elderly), and structural ageing (primarily caused by low/falling birth rates which increase the *proportion* of the population that is 'old'.)

The two dimensions, which have different implications for institutions, have two further but somewhat less understood features – natural decline, which occurs as deaths exceed births (expected in Australia from around 2035) and absolute decline, which will occur if the numbers of migrants become insufficient to replace the 'lost' births and increased deaths (in Australia from around the middle of the century.)

Currently around 13% of the Australian population is aged 65+ years, and this is projected to increase to over one-quarter by 2051. However while we think this age structure is 'old', it is relatively young when compared with those of most other developed countries. The United Kingdom, for example, currently has around 16%, Sweden 17% a, Germany 18% and Italy 19%.

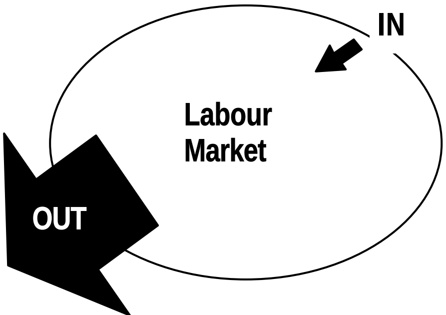
Numerical ageing, structural ageing, natural decline and absolute decline will be experienced by most of the world's countries during the present century – developed and developing countries alike. In Australia, the shift to natural decline is expected around the mid 2030s – sooner if net international migration falls much below 100,000 per year, while absolute decline will almost certainly begin during the second half of the century.

As a comparison, many European countries are already experiencing natural decline, while a few, including many other more recently developed countries such as Japan, are also experiencing absolute decline.

By 2050 approximately 33 countries are projected to have begun absolute decline, among them even China. Except in rare cases, increased migration levels will be insufficient to resolve 'the problem'. First the numbers required are enormous. For example, if the European Union wanted to keep its current age structure constant between now and 2025, it would need an annual net gain of approximately 8 ½ million migrants, compared with its current ½ million. Second, over the shorter term, migrants also add to structural ageing in that they tend to have lower birth rates than their host populations (a phenomenon that is exacerbated by recruiting skilled migrants.) These points notwithstanding, it can be expected that international (and sub-national) competition for skilled migrants will soon become fierce.

This has enormous implications for asset management both in terms of demand – and in terms of labour supply.

Numerical ageing. Data for a range of OECD countries indicate that over the next 25 years, around 70 million workers will retire, to be replaced by just 5 million labour market entrants – and this takes account of current levels of net migration for these countries. The situation contrasts markedly with the past 25 years, during which around 45 million people in OECD countries retired, but were replaced by 120 million baby boomers.



In the short term the 'young old' will seek leisure activities/goods and services. They may seek investment properties and/or to change houses – there could be a baby boomer effect behind the current housing boom. Demand is likely to increase for many goods/services such as heating/ air conditioning/ public transport (note that the elderly use the transport system at different times of day to the working age population)

Irrespective of improvements in health, there will be enormous increase in demand for health and aged care services – there will simply be more aged people.

Demand is likely to decrease however for university and other tertiary education because of the smaller numbers of young people and this may impact the level of skilled resources available..

Structural ageing – the ratio of old to young – will likely show up in conflict between the needs of the two groups for resources – for example, quiet walking paths or exciting skateboard parks. From about the 2020s on – and earlier for those countries where actual decline is already occurring – the more numerous elderly will be seeking to sell their homes (and other assets) to the less numerous young, with important implications for the property and capital markets. There will be more people leaving the labour market than are entering it.

Natural decline occurs when deaths exceed births is likely to lead to an increasing demand on migration. The shift to natural decline will for many regions usher in the fourth dimension of population ageing, absolute decline (or at least, zero growth). This occurs when the numbers of migrants are insufficient to counter the loss of natural increase. Once natural decline begin, populations will grow – or remain constant – from migration only. This is likely to change ethnic compositions.

> [Ed: With this will come a change in religious balance. For example, Islam has been predicted to be the dominant religion of Britain by 2040. Religions that encourage obedience to authority may make it harder for the workforce to challenge existing ways of operating and to adopt innovative new methods. Asset Managers may therefore need to consider developing training programs that encourage user input and new methods.]

Absolute decline occurs when migration is insufficient to counter the number of deaths over births. The impacts are similar to natural decline only more pronounced.

The foregoing is from a draft chapter of a book that my colleague, Natalie Jackson, a Professor of Social Demography, and I are writing looking at the impacts of demographic change on business over the next half century. Over the next few days of this conference I would be especially interested in your views and perceptions of population change and its impacts on your work, especially if your populations are already trending down for there is no doubt that this will be the greatest challenge that Asset Managers will face in the coming decades. But it is not the only challenge. Other significant changes are taking place that will for the most part exacerbate rather than modify the impact of population change on asset management and it is to these that I would now like to turn.

Global Integration

Global integration as a phenomenon is already well underway.

- On August 14, 2003, the largest power blackout in North American history affected eight .S. States and the Province of Ontario, leaving up to 50 million people with no electricity. It started with just one small company in the USA that was reluctant to close down when it experienced problems—and the resultant voltage swings tripped successive generators.

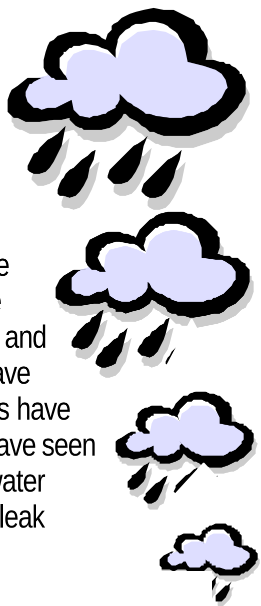
- Failure to keep transmission wires clear of overhanging trees in Switzerland resulted in blackouts in Italy!

- A fire at the Moomba Gas Plant in South Australia earlier this year left South Australian residents large unaffected because it was possible for South Australia to tap into the new SEAgas line coming in from Victoria – however major industrial users in New South Wales had to close down!

Nor do areas need to be adjoining neighbours for impacts to be felt. It is very likely that Australia – and Europe - will be impacted by the rapid increase in electricity demand in China, estimated at 5% a year for the next 15 years, and by the billion of dollars that the USA are providing for renewal in the wake of the blackouts that will place heavy demands on existing sources of component supply.

We are now interdependent whether we like it or not. In 1953 I remember seeing a picture of the Blue Streak Missile on the front page of our Australian daily paper with the bold caption "Britain Goes it Alone". As a recently arrived immigrant to Australia from London, it made me feel proud of the indomitable fighting spirit of the British who against all odds, would continue alone and independent. But hankering after solitary independence in today's world is to be willfully blind to reality. We might as well learn to live with the fact that we are now inter-dependent – and develop the skills to manage in this more complex world that affects our supply chains and expands enormously the range of our stakeholders. Future planners will need to take account of the fact that every business will, in this sense of interdependence, be a global business. And it will bring interesting contradictions – wind power, for example, so renewable, so green – will only be possible in the UK because it is backed up in France – by nuclear power!

Climate Change



Also widening our planning ambit is the impact of Climate Change or Global Warming. For years it has been simply a talking point, an academic issue – but now Asset Managers are taking the implications seriously. Not surprising in Australia (the world's driest continent!) this is most evident in the way we are now planning for the management of our water assets. For years we have assumed certain catchment yields and have not varied our estimates – but now we are starting to recognise that we may not have as much as we thought we had. Our information base is so far not good and few studies have been done, but in Western Australia where they have records spanning 40 years they have seen a fall of about 50% in catchment yield over these four decades. This is spurring other water bodies to assume similar effects in their own areas and to take seriously such things as leak management, pressure management, and – especially – demand management.

The most extreme form of demand management is rationing or restrictions and both Victoria and South Australia have introduced permanent water bans between 10 am and 6 pm, and a complete ban on hosing down driveways or cars. Now even Sydney (which periodically suffers months of extremely wet weather including devastating hailstorms) is also considering bans. – leading one radio commentator to remark that "our nightly news now has a new addition - Stock market up; stock market down; Australian dollar up; Australian dollar down; Level of Warrangamba Dam up; Level of Warrangamba Dam down"!

Yarra Valley Water in Victoria is one of the leading asset management organisations in Australia. It is already researching the composition of water demand by using data loggers installed in homes that record the amount of water used in cooking, washing, showers, toilet and garden. The data-logging sample includes small size and large house blocks and other variables that allow Yarra to predict likely future demand and to find ways to manage it.

While some reject the climate change connection, others see significance in the fact is that Florida is now being hit by the fourth major hurricane in as many weeks, and that parts of Europe are now regularly experiencing extreme weather conditions that were not the norm some years ago.

It is currently fashionable to live on the coastline but if extreme weather conditions increase, or people's perceptions of extreme coastal weather increase, we may see a movement of the population inland and this could have major impacts on the location of assets.

'THAT'S IT. WE'RE RETIRING TO NEBRASKA.'

Global Terrorism

The other global trend, of course, and one that is currently dominating our newspapers, is global terrorism. It is a strange thing to say but in some ways terrorism has done asset management a favour! For the last four years we have focused sharply on avoiding the worst impacts of breaks in service delivery and, as a result, asset management, which many still saw as an exercise in preserving the condition of assets - an older, inward-looking, perspective - is now rightly seen as focusing on service provision.

We do not wish to do without the benefits of integration, but they have made us more vulnerable so we have been encouraged to rethink. Redundancy, once excoriated in the name of efficiency is now seen to offer safety benefits. In Australia, the CSIRO (and probably scientific organisations in other places as well) is looking at distributed production, with overlap, as a means of combating system vulnerability. Focus on Critical Infrastructure has also raised general public awareness of infrastructure more generally. (This is the Year of the Built Environment, of which infrastructure is of course such a key part.) Nevertheless this awareness may be bought at a high price if it encourages unwise, knee-jerk, politically motivated resource allocation. The truth of the matter is that we are still more at risk of losing service through poorly maintained and fund-starved assets that we are from a terrorist bomb. Still, heightened security concerns is one of the new factors that Asset Managers have to allow for in their planning.

Loss of Trust in Professionals

Not perhaps as dramatic as Global Terrorism as a trend but one that could, in the longer term, prove to be even more significant, is the Loss of Trust in the Professional. Large business collapses, political scandals and child abuse claims against the Church have left the public reeling. Who can they now trust, except themselves? One reaction has been to place less trust in all professionals – including us – and to demand that the common man be heard; to hold the believe that the view of the man in the street is equally as valid – if not more so – than that of the professional. We see it in the rise of community involvement, in the willingness of the layman to ignore the advice of the professionals – particularly when a lot of that advice is seen to be self-serving, or selected to serve a givrn point of view. Asset Managers are now being forced to justify themselves and their decisions, and what is more, they are being required to do this in layman's language. Courts are ruling that provision of information that is overly convoluted, excessively technical or simply too much, is no information at all! Clear communication and attention to the needs of the people is the new requirement on Asset Managers. Once it was sufficient to be technically competent and asset management was a back room activity, designing efficient configurations. Not any longer! July, for example, saw this news item:

> "ElectraNet is extremely disappointed with the decision of the District Council of Grant to refuse its Development Application for the new transmission line between its South East and Snuggery substations. *It appears that DC Grant has ignored professional advice and counsel regarding the uncommercial costs of undergrounding the proposed new transmission line* – to the detriment of its constituents and the wider South Eastern community."

The Rise of Environmentalism

In the same month, in the USA, Connecticut Light and Power was required to underground high voltage power lines in its 69 mile transmission line upgrade that are near schools, playgrounds or anywhere near children. People were concerned with the health consequences of magnetic fields. Only if technically infeasible or unsafe was the utility to be excused. Undergrounding high voltage lines increases costs by a factor of around 10, so this is a significant political decision.

This rise in 'people power', as it were, is coming at a time when there is heightened awareness of the environment. It is becoming harder and harder for infrastructure agencies to get environmental protection agency approval for new construction. The result is that companies are making existing assets do more and more and the Asset Managers are being squeezed. Higher utilisation rates result in greater wear and tear and more need for maintenance, yet, at the same time, there is less opportunity for downtime to actually do the maintenance. More maintenance is therefore being carried out on live assets, even in electricity, and even for renewal. A New Zealand team is using a process for increasing the height of poles by creating small platforms that are inserted under existing poles – without disturbing current flow. They can even insert poles through live wires.

It is commonplace, of course, for sewerage renewal to require by-pass lines to permit continued operation; for road renewal to work a lane at a time to keep traffic flowing; and for hospitals to be renewed while the work of the hospital continues. The need to renew while continuing service adds to the cost of renewal and the cost premium can be high. It is a prime factor in the differential between 'green field' accounting values and 'brown field' renewal values. Good decisions on the level and timing of renewal can generally not be made using accounting values. In Australia, a number of colleagues and I are working on a valuation and depreciation methodology acceptable to accountants but based on actual renewal costs and timing.

Environmentalism is also affecting the cost of asset disposal. also getting more and more expensive to abandon existing infrastructure now that with companies being made responsible for full clean up and restoration costs. Restoring contaminated land is not easy, nor is it an inexpensive exercise. The implication for Asset Managers is that they are being required to keep the asset in service for longer so as to postpone the day of reckoning.

Third Party Access/ Common Carriage

It is not difficult to imagine that difficulty in obtaining one's own assets could increase the demand for using those of others! Services Sydney is a consortium that has just made a bid to take customers from Sydney Water. The plan is to use the existing Sydney Water network to get the sewerage to just short of the treatment works, then take it off and treat it themselves. The cost effectiveness of this has people scratching their heads but the pricing issues are going to be interesting.

Greater use of third party access (in the UK 'common carriage') could result in greater cost transparency as a result of publication of the results by the regulators. Already, the use of regulation is putting utility costs under the microscope.

There is also an interesting corollary: One of the demand management approaches for water is the traditional pricing route, but will raising prices to curtail demand have the effect of increasing third party access requests from companies who argue 'they can do it cheaper'? If pricing is going to be used for rationing purposes, it may have to be done as an environmental levy with the funds raised going to an Environmental Protection Agency type of body – for re-distribution to encourage research into new ways of conserving water.

This article will conclude in the next issue with a look at the Implications of these changes for the Labour Market, and particularly the market for asset managers and asset management.