

## Will Pension Funds Help Save the World? By David Brand

*With their coffers growing and time running out, will global pension funds get involved in the growing markets for ecosystem services and help save the world? David Brand argues that this will happen only if we make such involvement profitable and only if we work on the legal, institutional and commercial underpinnings of these markets.*

While recently perusing a new document, “Executive Briefing: Managed Funds in Australia”<sup>1</sup>, I was surprised to see that in Australia, a country of 20 million people, there are now \$US500 billion in funds being managed. In fact it is projected that the funds under management in Australia will grow by more than threefold in the coming decade to \$US1.7 trillion by 2015. Most of that money (70%) is held in pension funds.

The growth in Australia’s pension funds (or what are called ‘superannuation funds’ down under) is driven by a couple of factors. The first is the aging population and particularly the baby boomers who are now entering their late careers and socking away cash for retirement. The second is an interesting Australian law, called the Superannuation Guarantee Scheme, which currently requires employers to put 9% of wages into retirement savings accounts. Some of the pension funds on the receiving end of this largesse might feel akin to the ducks used to produce *pate de foie gras*. The CEO of one Australian pension fund recently told me that their assets under management had increased by a staggering 30% in the past year alone.

Australia might be an extreme example, but there are aging populations around the world who are seeing substantial inflow of funds into retirement savings. This money is not endless, and represents the output of an unbalanced demographic age class distribution. Once the baby boomers, born generally between 1946 and 1964, move into retirement the tide will turn and money will flow out to maintain the comfortable lifestyles of the ‘consumptive generation’. This will have a range of consequences for capital markets, asset values, and investment returns.<sup>2</sup>

Reflecting on this tidal flow of cash, I wondered about its implication for the environment. In a business as usual world, the answer would be ‘more of the same’. That is, it would simply increase the rate of economic activity.

In his recent book “Red Sky at Morning”, Gus Speth<sup>3</sup> notes that the past 20 years have seen global population rise by 20%, world economic output increase by 75%, energy use expand by 40%, meat consumption rise by 70%, automobile production grow by 45%, paper use increase by 90%, and the list goes on. Speth further suggests that the global economy may quadruple by 2050, and if linked to increasing

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<sup>1</sup> Axiss Australia. 2004. Managed Funds in Australia. Invest Australia, Sydney, Australia (available at: [www.axiss.com.au](http://www.axiss.com.au))

<sup>2</sup> see for example the recent paper by David Bloom and David Canning of Harvard Medical School, “Global Demographic Change: Dimensions and Economic Significance”, available at: [www.kansascityfed.com/PUBLICAT/SYMPOS/2004/pdf/BloomandCanning.Paper.0823.pdf](http://www.kansascityfed.com/PUBLICAT/SYMPOS/2004/pdf/BloomandCanning.Paper.0823.pdf)

<sup>3</sup> Speth, J.G. 2004. Red Sky at Morning. Yale University Press, New Haven, Connecticut.

consumption, we may have a profound problem—a kind of endgame for the natural environment as he calls it.

So, in the next 10-15 years, we have but one shot at re-profiling the investment that is now flooding into the capital markets. This is urgent, because once the money is invested (say into the loan for a bulldozer purchase or a government bond issue for a road construction project in the Amazon) it is that much harder to re-allocate. And once the outflow process starts –around the year 2015– it will be all the harder to pry money out of existing assets. Therefore, the slow trend towards ‘Equator Principles’, Socially Responsible Investment, and Ecosystem Markets has to be accelerated if it is to have real impact on the allocation of this investment. If we miss this opportunity, the job of avoiding Speth’s endgame will get a whole lot tougher.

On that note, the work of *The Ecosystem Marketplace* to stimulate the pricing of environmental services is very important. But having read, “The New Economy of Nature”, by Daily and Ellison<sup>4</sup>, it is easy to despair at how slowly the idea of creating value for the services provided by nature has been taking hold. The capital markets are quite ruthless, and if something is valuable it draws investment, while if something has little or no perceived monetary value –like the declining biodiversity of the Congo<sup>5</sup>– it will be swept aside. This is our current problem: the priceless remains under-valued. We are only now beginning to translate the impact of emitting carbon dioxide into the atmosphere into dollar terms, and we haven’t even begun to account for the loss of a tropical rainforest on the same ledger as we do the soybeans or palm oil that typically replace it<sup>6</sup>.

I suppose that the difficulty is two-fold. First, the existing economic system is the result of decades, even centuries of systematic evolution. The interests and valuation systems are quite deeply entrenched and there is not only momentum, but also desperate self-interest, behind the existing paradigms. The second problem –one that I think can be overcome, and which will ultimately address the first problem– is our very limited capacity to define, give legal title to, transact in, and manage, ecosystem services. Addressing the second problem requires pioneers; people who believe in the value of nature, and who won’t give up until it becomes more attractive to maintain, rather than consume, nature as a capital asset.

I think the frustration that many people feel at the slow progress of shifting the paradigm is caused by the iceberg phenomenon. That is, we can all see and appreciate the fact that we need to create what I think is the tip of the iceberg—we know that if natural forest is commercially valuable it won’t be cleared for cattle grazing and if water is priced correctly, the people whose land controls its purity will be rewarded financially. This is an attractive idea, but the difficulty lies in the large body of work below the water line that is needed to make this iceberg a reality.

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<sup>4</sup> Daily, G. and Ellison, K. 2002. *The New Economy of Nature*. Island Press/Shearwater Books, Washington, DC.

<sup>5</sup> See, Linden, E., Lovejoy, T., Phillips, J.D. 2004. Seeing the Forest. *Foreign Affairs*, July/August 2004.

<sup>6</sup> See for example recent WWF study forecasting that 22 million ha of forest and savannah in South America will be converted to soybean cultivation by 2020  
[http://www.panda.org/about\\_wwf/what\\_we\\_do/forests/news/news.cfm?uNewsID=14910](http://www.panda.org/about_wwf/what_we_do/forests/news/news.cfm?uNewsID=14910)

Let me give you an example from my own experience: I remember being involved in the first forest-based carbon credit trade in Australia in January 1998. The agreement had been reached between Pacific Power and State Forests of New South Wales (NSW) that the carbon sequestration occurring on 1000 hectares of newly planted forests would be sold for \$US10 per tonne of carbon. The Premier of NSW, Bob Carr, called a press conference, the carbon trade was announced and covered on the national TV news. All well and good, until I suddenly thought, what did we actually do here? I called over to John Hughes, an acquaintance at Bankers Trust Australia and said, “we just sold the carbon credits from 1000 hectares of forest, how do we do that?” John duly provided me a copy of a two-page ‘fill in the blanks’ sheet titled, “Commodity Transaction Form”. I hand wrote in the commodity to be transacted (tonnes of carbon), delivery date (annually by June 30, each year), counter-parties, etc. and then wrote at the bottom Serial No. 00001. I was obviously expecting this to be the start of something very big with that many zeros in front of the 1. (Would that they were on the other side!)

Someone –probably a lawyer– then suggested that we couldn’t transact something that wasn’t legally defined, so we had to draft carbon rights legislation, allowing the land title to show not only who owns the land and who owns the trees, but now, who owned the rights to the carbon sequestered in the trees. Then we realized that we needed a standardized way to measure and account for the carbon associated with the carbon rights in the forests. This led to a two-year process by Standards Australia to produce a “Carbon Accounting Standard for Reforestation Projects”. Then we couldn’t register the carbon credits so created, until the NSW Government again came to the rescue and created the Greenhouse Gas Abatement Scheme, which limits greenhouse gas emissions from energy use and allows forestry sequestration as an offset.

In that vein, even more recently there has been a whole set of instruments created, including the ‘accreditation of abatement certificate providers’, ‘deed of maintenance’ for carbon sequestration over 100 years, and another “Restriction on the Use of Land” to ensure permanence in the carbon credit stock in forests. And that is not all: under Australian Financial Services law, you need to be licensed to ‘deal in derivatives’ if you would like to sell carbon credits as it is considered a financial product, and that requires another whole process of application and justification. The point is that it is now September 2004 as I write this, and a process that started in 1998 is only now reaching a kind of fruition. And carbon credits are probably the easiest ecosystem service market to commodify!

Which brings me back to the initial thesis: If we want more forests planted to absorb greenhouse gases, better protection of catchments and watersheds, and more durable conservation of the world’s forests, we need to sort out all the stuff below the waterline. And this is where the pension funds come in: They have the pools of money needed to own and supply biodiversity, to protect watershed enhancing forests, and to invest in carbon sinks. It’s just that right now there is no return from an investment in these environmental services, and therefore we over-invest in environmentally damaging development, and under-invest in the conservation of nature. Even worse, when we finally do see the error of our ways, we will need to over-invest in fixing the damage afterwards.

As an example, we need about \$12.7 billion invested in revegetating degraded land in Australia over the next decade<sup>7</sup>. This investment is projected to help avoid the loss of up to 17 million ha of agricultural land over the next 50 years, at a cost to the economy of over \$1 billion per annum—an ungeared 8%+ real equity rate of return on the \$12.7 billion invested. This rate of return would be competitive with other ‘infrastructure-type’ investments like power plants, toll roads or airports.

The problem, however, is figuring out who should pay the \$1 billion per year for the ecosystem services that avoid 17 million ha of land degradation. Our pension funds may be able to save the world, but they have to be able to make money doing it. So I would like to challenge the many politicians, academics, professionals and businesspeople that have a stake in this area: We have ten years –give or a take a couple of years– to get this job done, for after that, the job gets a whole lot harder. We need to focus on the three big environmental challenges of the 21<sup>st</sup> century (climate change, degradation of land and freshwater, and biodiversity loss) and make the solution to these issues profitable to investors. Then, and only then, will the pension funds invest and maybe, just maybe, we will begin to see a renaissance of nature, rather than the endgame that now seems so inevitable.

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<sup>7</sup> See report of Allan Consulting (2001), Repairing the Country, Leveraging Private Investment. Available at [www.acfonline.org.au](http://www.acfonline.org.au)