The year in review

The year 2010 has been an important and productive one for The Australia Institute. Richard Denniss, Executive Director of the Institute, highlights its more significant achievements and comments on several projects still in the pipeline.

This time last year Kevin Rudd was prime minister, world politics was dominated by what to do, or not to do, about climate change and the idea of The Greens and Independents holding the balance of power in the House of Representatives was considered about as likely as a resurgence of support for Pauline Hanson. Only outsiders like The Australia Institute were calling for a carbon tax, a mining super profits tax and tougher regulation of the banks and finance sector.

It’s been a big year in politics but it has also been a big year for the policy debates that the Institute has been focusing on.

**Carbon Tax**

The previous government’s failure to sell the Carbon Pollution Reduction Scheme (CPRS) is now widely considered to be one of the principal reasons that led to Rudd’s removal as prime minister. Having raised the rhetorical stakes by describing the problem of climate change as ‘the great moral challenge’, he and his government spectacularly failed to explain why the CPRS was the answer.

The combination of timid targets and excessively generous compensation was a major reason for this but so too was the government’s inability to respond to the Institute’s critique that the scheme’s design was flawed because any efforts by individuals, or even state governments, to reduce emissions would simply free up additional permits for big polluters. This design flaw was bad policy but it was terrible politics. The CPRS actively disempowered the voters who were most concerned about climate change.

Ironically, one of the great political strengths of the CPRS was its policy complexity. In the absence of real scrutiny, the CPRS could have allowed the Rudd Government to introduce legislation that appeared, on the surface, to reduce emissions significantly; in reality, however, its reliance on imported ‘offset permits’ rather than actual emissions reduction would have meant negligible pain for big polluters.

Put simply, the design of the CPRS was so complex that the government hoped it could walk both sides of the street.

One of the main advantages of a carbon tax is its potential simplicity. Just as cigarettes, alcohol and petrol are taxed so should the...
government tax greenhouse gas emissions, beginning with the big sectors such as stationary energy (coal- and gas-fired power stations), industrial processes (the making of steel, cement and fertiliser) and transport fuels (petrol, diesel and LPG).

Compensation for the so-called ‘emission intensive, trade-exposed’ sectors should be capped as a percentage of revenue to ensure that the polluters themselves have an incentive to evaluate the claims made by other industries. That is, a well-designed scheme would simply force the polluters to fight each other for compensation rather than fight the taxpayer at large.

Compensation for households needs to be more cleverly designed and targeted than the excessively generous, but inordinately complex, arrangements proposed under the CPRS. If billions of dollars are not given away to the polluters, those billions will be available to ensure that households, particularly low-income households, are insulated (literally and financially) from the inevitable price increases.

Finally, can anyone imagine designing a tobacco tax regime in which heavy smokers are exempt as long as they buy their cigarettes in bulk? Polluters prefer emissions trading to a carbon tax principally because they know it will be easier to make a case for ‘free permits’ than it would be to make a case for exempting polluters from paying a pollution tax.

What’s in a name?

It is often suggested that selling a carbon tax is so much harder than selling an emissions trading scheme because of the word ‘tax’ in its name. This argument, while bizarre, remains strongly held by many ‘insiders’. For the nervous nellies out there, here are some arguments for calling a spade a spade:

- John Howard introduced a great big new tax on everything except food. He won an election campaign fought primarily on the issue. There were no attempts to call it the GSL, a goods and services levy.
- The current Opposition Leader, Tony Abbott, went to the last election having supported higher taxes for cigarettes in order to reduce demand for a harmful substance. He also proposed an increase in the rate of corporate tax in order to fund a more generous paid parental leave scheme.
- In his recent autobiography, John Howard explains why he increased fuel excise against Treasury’s advice, thus driving up petrol prices. He describes it as ‘... not popular because it pushed up the petrol price by 3.5 cents a litre, but it was good policy. It priced a wasting resource at its market value—surely sound conservation policy’.

But the main reason to call it a tax is because it is one. The allegedly clever idea of pretending the CPRS wasn’t a tax because the price was determined by a market for permits was both misleading and ineffective. If the government is to succeed in introducing a price on carbon, it needs to focus on why it is necessary, not on what it should or shouldn’t be called.

Banking and superannuation

The Institute has been paying particular attention to the need for reform of our rapidly growing, and enormously profitable, financial institutions over the past few years. In July, we had a major win when the Cooper Review of Australia’s superannuation system recommended the adoption of a new default superannuation scheme along the lines first proposed by the Institute.

In the lead-up to the 2010 election, Prime Minister Gillard committed her government to introducing such a scheme, now known as MySuper, that will ensure that all superannuation account holders are defaulted into low-fee products unless they elect to go elsewhere. It is safe to
A decade ago, the Prime Minister John Howard referred to work-life balance as a barbeque-stopper. During the intervening years nothing has changed—in fact, work is now occupying even more of people’s lives than it did then. Serena Rogers examines the consequences of this phenomenon and urges workers to use Go Home on Time Day as an example and go home on time.

It is now a decade since John Howard declared work-life balance to be a barbeque-stopper. Things haven’t improved; if anything, the problem of overwork is getting worse. The steady creep of work into weekends via mobile phones and email is no doubt responsible for preventing an increasing number of actual barbeques taking place, in addition to the metaphorical one referred to by Howard.

**Go Home on Time Day** provides an opportunity to recognise the extent of overwork in Australia.

The ongoing imbalance between work and life is particularly pertinent as we head into the holiday season and look forward to time with family and friends. A survey conducted by The Australia Institute for this year’s national Go Home On Time Day, held on November 24, found that only one in five Australian workers are happy with the hours they work; most expressed a desire to work less.

At first glance, it is no surprise that people say they want to work less. However, survey respondents were asked to take into account the effect on their income when nominating the hours they would prefer to work. So people who state that they would like to work fewer hours are also prepared to take a pay cut to do so should it be necessary.

While the survey findings might seem intuitive, they are evidence that Australia’s ‘flexible’ labour market has been unable to do one of its most straightforward tasks: to match people’s preferences with the jobs that suit them.

For too long many employers (though of course not all) have been relying on an implicit subsidy from workers in the form of unpaid overtime. The value of the unpaid overtime worked in Australia is over $70 billion a year, or more than six per cent of GDP. Employers who insist that their staff work excessive hours simply because there is no other option are effectively admitting that they are unable to manage their human resources properly. It may also reflect a poor business model.

The value of the unpaid overtime worked in Australia is over $70 billion a year, or more than six per cent of GDP.

The Institute paper, *Long time, no see: the impact of time poverty on Australian workers*, reveals that half of all Australians are suffering from time pressure—the ‘modern malaise’ of not having enough time to do all the things people need or want to do.

Time poverty can have a substantial impact on those experiencing it. One in two (50 per cent) of those surveyed, and 61 per cent of those working overtime, said they were prevented from spending as much time with family as they would have liked.

One in two, and 58 per cent of those working overtime, said work had stopped them doing physical exercise in the past week. Work prevented one in three from eating healthy meals, while one in four reported being too busy to go to the doctor when they probably should.

Other studies have linked long working hours and time pressure to lifestyle illnesses such as obesity, alcoholism and cardiovascular disease. When it comes to health, it would appear that work gets in the way of both prevention and cure.
The banks are not justified in raising mortgage rates more than the rise in official interest rates; if anything, the cost of mortgages should have risen less than official rates.

Recent research by The Australia Institute examined this issue using the latest figures published by the banks' regulator, the Australian Prudential Regulation Authority (APRA). Analysis of APRA's figures reveals that bank interest expenses have increased but not by as much as the increase in official interest rates.

Some of the banks' costs will increase when the RBA puts up interest rates—but not all. The RBA has no influence on overseas markets, where banks raise about a third of their funds, and most consumer accounts don't change, with the majority of depositors continuing to receive zero interest on their credit balances. For these reasons, as the latest year for which there is data shows, while official interest rates went up .136 per cent, the banks' cost of funds went up by .088 per cent.

Therefore the banks are not justified in raising mortgage rates more than the rise in official interest rates; if anything, the cost of mortgages should have risen less than official rates. The November round of mortgage increases was just a greedy grab for more profits.

A spokesman for the Australian Bankers Association (ABA), Mr Steven Munchenberg, confirmed The Australia Institute's calculations but didn't want the facts to get in the way of the ABA's story. He said:

To be honest we can't work this out. Performing the same calculation we get the same result but I know it is not right because if it was we would have been to a pulp with this by the government and the opposition.

The ABA seems to be saying that competition will not be an effective remedy against the might of the banks—the threat of beating them to a pulp is the only way to address their giant rip-offs.

And they call it a free market!
The true meaning of Christmas? It depends on which state you live in.

For many Australians, Christmas is a day spent with family. However, a small but significant proportion of Australians are also at work; according to survey research conducted by The Australia Institute, around seven per cent of Australians over the age of 18 worked on Christmas Day in 2008. A public holiday loading is typically received by these workers as compensation for working at this time. But this year, Christmas Day happens to fall on a Saturday and in some states this means that it won’t legally be classified as a ‘public holiday’ for the purpose of work entitlements.

Who gets to keep Christmas?

In Victoria and South Australia, Christmas Day is usually a public holiday. However, an exception is made when Christmas falls on a weekend; in that case, a replacement public holiday is declared on a following weekday and Christmas Day becomes an ordinary Saturday or Sunday. So in these states, those who need to work on Christmas Day this year will find that public holiday penalty rates won’t apply, and the only penalty rate available will be a Saturday loading, if applicable.

By contrast, in New South Wales, Queensland and Western Australia, Christmas Day is always a public holiday, regardless of the day of the week on which it occurs. When Christmas falls on a weekend, an additional public holiday is declared for a following weekday, ensuring that a Christmas weekend is also a long weekend. Recently, the Tasmanian Parliament enacted the Statutory Holidays Amendment Act 2010 (Tasmania) to reflect this arrangement and ‘allow all Tasmanian employees to enjoy equitable and consistent arrangements for the observance of public holidays’. The Northern Territory and Australian Capital Territory have also now moved to declare Christmas a public holiday.

Who would possibly be against Christmas holiday pay?

The calendar coincidence where Christmas occurs on a Saturday happens only once every seven years. Nevertheless, the arrangements to ensure workers receive holiday pay on Christmas Day are too much for the Australian Industry Group (AIG). To avoid the ‘chaos’ that these varying arrangements will ostensibly cause, AIG has applied to Fair Work Australia to ensure that no workers receive public holiday loading on Christmas Day this year. (See H Ridout, A group takes action to avoid Christmas/New Year public holiday chaos, Australian Industry Group Media Release, 8 November 2010).

What do Australians think?

Most Australians do not work on public holidays. The public holiday most commonly worked on by Australians is Labour Day, with 21 per cent of adults at work; the least common is Christmas Day, with 7.3 per cent of adults at work. Nevertheless, an overwhelming majority, 93.7 per cent, think that those who do work on public holidays should be paid more than usual for the shift. In addition, 31.3 per cent of Australians think there should be more public holidays and only 9.8 per cent think there should be fewer.

What price Christmas?

With the holiday season fast approaching, it is worth reflecting on the value and meaning of Christmas Day. For those Australians at work, it seems more than fair that public holiday loading should exist on the day itself. Victoria and South Australia should alter their arrangements to ensure equity in this regard, and the AIG should reflect on what they think Christmas is really all about. §
Poverty traps

Poverty traps in the tax-transfer system (areas where higher private income leads to little or no gain in disposable income) mean that in some circumstances people are unwilling to seek additional employment. Confronting the problems of an ageing population, governments are taking a closer look at ways to circumvent these effects. David Ingles suggests some solutions to the problem.

The Australian tax-transfer system targets those in need and, as a consequence, has long been recognised as prone to both poverty traps, areas where higher private income leads to very little gain in disposable income, and high effective marginal tax rates (EMTRs) in general. The result is that some of the poorest people in the population confront tax rates that are higher than those of top income earners, and can severely affect people’s ability to work their way out of poverty.

Particularly acute disincentives face people in subsidised state rental housing. The system can also create grave disincentives for secondary-income earners due to means tests on assistance for children, so that workforce participation by mothers is low in Australia relative to some other advanced economies.

With the looming problems of population ageing, increasing workforce participation has become a priority for governments. Overseas, many governments are examining tax and transfer schemes to establish whether or not the incentives created by them encourage people to stay out of or leave the workforce. The recent Henry Review into the Australian tax system paid particular attention to the transfer system and its associated incentives.

The Henry Review made a number of recommendations that impact on EMTRs. Some of these were good, for example the proposal to abolish a raft of special levies, rebates and allowances and establish a tax threshold of $25,000 with a standard marginal rate of 35 per cent. Other recommendations, such as the suggestion that all welfare payments become non-taxable, impacted ambiguously on EMTRs. It is a positive sign that the Independents have forced the government to have another look at tax reform, and hopefully the tax-transfer system will figure prominently in this debate.

A paper on poverty traps recently published by The Australia Institute examines available evidence on the EMTR problem based on computer models and population surveys. It then looks at various incremental solutions before considering more radical solutions such as the negative income tax (NIT) proposed in 1975 by the Henderson Commission of Inquiry into Poverty. NITs typically involve a uniform tax rate on all private income combined with a basic income guarantee available to everyone. Unfortunately, it has been found that the tax rate required to finance an adequate guarantee corresponding to current payment levels is so high, at nearly 60 per cent, as to make this solution apparently unviable.

Particularly acute disincentives face people in subsidised state rental housing. The system can also create grave disincentives for secondary-income earners due to means tests on assistance for children.

With the looming problems of population ageing, increasing workforce participation has become a priority for governments. Overseas, many governments are examining tax and transfer schemes to establish whether or not the incentives created by them encourage people to stay out of or leave the workforce. The recent Henry Review into the Australian tax system paid particular attention to the transfer system and its associated incentives.

The Henry Review made a number of recommendations that impact on EMTRs. Some of these were good, for example the proposal to abolish a raft of special levies, rebates and allowances and establish a tax threshold of $25,000 with a standard marginal rate of 35 per cent. Other recommendations, such as the suggestion that all welfare payments become non-taxable, impacted ambiguously on EMTRs. It is a positive sign that the Independents have forced the government to have another look at tax reform, and hopefully the tax-transfer system will figure prominently in this debate.

A paper on poverty traps recently published by The Australia Institute examines available evidence on the EMTR problem based on computer models and population surveys. It then looks at various incremental solutions before considering more radical solutions such as the negative income tax (NIT) proposed in 1975 by the Henderson Commission of Inquiry into Poverty. NITs typically involve a uniform tax rate on all private income combined with a basic income guarantee available to everyone. Unfortunately, it has been found that the tax rate required to finance an adequate guarantee corresponding to current payment levels is so high, at nearly 60 per cent, as to make this solution apparently unviable.

The Australia Institute would like to take this opportunity to wish all its members and supporters a very happy Christmas and a bountiful and fulfilling New Year. Many thanks to all those who have assisted us during 2010, both financially and in other ways, to achieve some truly momentous outcomes.
Specific changes

1. Reduce the taper on Newstart, Sickness and Youth Allowance (YA-independent) to a flat 50 per cent (now 50 per cent initially and 60 per cent thereafter).

2. Reduce the Family Tax Benefit (FTB-A) taper to a flat 15 per cent and abolish the two-tier income test structure (now 20 per cent and 30 per cent). The Henry Review recommended a single taper at 15 or 20 per cent.

3. Reduce the YA-dependent taper to 15 per cent from the current 20 per cent.

General changes

4. A further and quite expensive option canvassed in the Henry Report is to abolish the separate State Housing Rental Rebate schemes and replace them with a greatly expanded scheme of Commonwealth rental assistance. This might cost an additional $2 to $2.5 billion, but it would remove one of the current serious poverty traps and assist low-income renters in a major way.

5. In the medium term, an attractive option is to subject welfare payments to a designed structure of linear EMTRs. Using special rebates, this option could be implemented, for example, by not subjecting pensioners to any tax until their pension entitlement is exhausted. The cost of this program is difficult to quantify.

Farewell to Frank Fenner

The Australia Institute was saddened to hear of the death on 22 November 2010 of Professor Frank Fenner aged 95. Professor Fenner was a leading Australian scientist, best known for his work on three viruses: smallpox, myxomatosis and malaria. He carried out extensive research into the control of malaria and headed the World Health Organization team that eradicated the smallpox virus. The development of myxomatosis helped to check Australia’s rabbit plague during the 1950s.

Frank Fenner played a transformative role in Australian academia through his support for the development of the Centre for Resource and Environmental Studies (CRES), which amalgamated with the School of Resources, Environment and Society to become the Fenner School of Environment and Society in 2007. This unique initiative brought together the wide range of skills and experience needed to truly understand and address the diverse nature of ecological problems.

Professor Fenner was a good friend to The Australia Institute, familiar with and supportive of its work. The absence of his kindly, inspirational encouragement will be deeply felt.
It’s the thought that counts

Many Australians possess everything they need and, prior to the Global Financial Crisis at least, have shown a growing tendency to welcome gifts that are actually donations made to others on their behalf. The Australia Institute conducted a survey to see if the population, a little battered by the world’s financial situation, continues to feel this way. David Baker assesses the responses.

Christmas presents have been a part of Christmas since three wise men on camels brought Frankincense, Gold and Myrrh to a stable in Jerusalem. More recently, within parts of modern society, gift giving at Christmas has become more altruistic. Gift catalogues that enable people to buy gifts as varied as goats, wells and maternal health kits for those in less developed parts of the world on behalf of friends or family have become more popular. This shift has not changed the motive behind giving at Christmas, but it has refocused its meaning at a time when most Australians have everything they need.

The Institute’s 2006 Christmas newsletter reported that more than half the population had been given an unwanted item at Christmas time and many expressed a willingness to receive a donation made on their behalf instead of an actual gift. At the time, these results were attributed to perceptions of ‘excessive Christmas consumerism’ within a broader anti-consumerist sentiment and the conclusion that ‘the majority of Australians would like to see more attention to worthy causes at Christmas’.

Only two years earlier, the Boxing Day Tsunami that washed terror and loss across the breadth of the Indian Ocean had generated a stark reflection of the Christmas gift-giving of the previous day. Within ten days, Australians had donated more than $100 million in response to appeals to assist the people left destitute by the tsunami.

Since then, the Global Financial Crisis (GFC) has rolled its own tidal wave of bad debts, financially fallible institutions and dodgy investment products across developed market economies. In Europe, austerity is the new buzz word and in the US, Republicans and Tea Party politicians have ridden a ‘new wave’ to power on the back of high unemployment and anger at government bail-outs of corporations (and, inexplicably, the idea of a more universal health care).

Results from a recent survey by The Australia Institute show that Australians are now more inclined to want personal Christmas gifts than they were before the GFC; the popularity of charity-based gifts for others instead of articles for themselves has waned.

Previous survey results showed that, in the past, 53 per cent of Australians had received items they did not use or later gave away; the recent survey showed that, last Christmas, 32 per cent of people reported a similar situation. This decrease indicates that either more thought is being directed towards appropriate gifts or, as they become more squeezed for discretionary spending dollars following the GFC, people are delighted to be receiving something again.

At the same time, there has been a decrease in the number of people who said that they would be happy to receive as a Christmas gift a donation made to a charity on their behalf. In 2010, less than half of people surveyed said that such a gift would be acceptable compared to nearly three quarters of those surveyed before the GFC.

These comparative findings suggest that, following an economic downturn, Australians prefer to receive gifts themselves. Despite this, a third of the population is likely to receive unwanted items at Christmas.
But are current attitudes also part of the problem? The survey asked respondents if, this year, they would buy a gift for someone, perhaps because of a feeling of obligation, when they did not really want to do so. One in four agreed that this would occur, up from one in five last time the Institute ran this survey.

Compounding further the problem of unwanted Christmas presents, almost three in ten respondents said that they suspected that some of the presents they gave this Christmas would go unused or later be given away. Of those who said that they would be giving presents to people they didn’t want to, 62 per cent suspected that some of these gifts would be unused or given away.

The fact that many of the people who have given items at Christmas are aware that their gifts are not used and are possibly given away, indeed suspect that the same thing will happen this year, exposes the cultural complicity of giving unwanted gifts to unimpressed individuals only because of a feeling of obligation.

Post-GFC, people are looking forward to the presents they will receive this year but there remains an expectation that many of these will be unwanted. With charity gifts less popular in a more depressed economic environment, it is important that care and thought are accorded the choosing of gifts this holiday season—it is still, after all, the thought that counts. §

Missing out

In mid-2010, The Australia Institute released research into the numbers of people who are missing out on the welfare benefits they appear to be qualified to receive. The research presented a different perspective from the usual story of how many people are defrauding the welfare system.

The report, Missing out: unclaimed government assistance and concession benefits, found that more than 168,000 people are forgoing benefits worth more than $620 million across just four Centrelink payments. The significance of this report saw Opposition and cross-bench Members of Parliament pursue the issue at Senate Estimate hearings.

FaHCSIA representatives were quizzed about the efforts the department took to assess the numbers of people missing out on benefits they are actually qualified to receive. Avoiding the premise of the question, the department’s response focused on the process taken to predict uptake; it did not address finding those who qualify for, but fail to receive, benefits to which they are entitled.

The absence of any government effort to find people who are missing out was confirmed in documents acquired by the Institute under Freedom of Information. A request for information on the numbers of these people was refused on the basis that no such documents exist.

This suggests that a policy of ‘not asking/not knowing’ prevails within FaHCSIA, a policy approach that inhibits the provision of services to Australians who find themselves in need of assistance and limits how Centrelink is able to provide these services. §
The year in review continued from Page 2

say that these changes will deliver literally billions of dollars to Australian families in the form of lower fees.

The Institute has also been actively promoting awareness of the enormous, and rapidly growing, profits of the big banks in Australia. Although the headline profits of the banks declined during the Global Financial Crisis due to the impact of an increase in bad debts, it was clear from their annual reports that their underlying profits were growing strongly. When the number of bad debts returned to normal, it was apparent that the headline profits of the banks would explode. We said they would—and they did.

When, in November, the banks decided to increase their mortgage interest rates by nearly twice the official interest rate, the political heat around the issue of bank profits was reaching melting point. It was in this climate that we released research making the heretical claim that, rather than rising rapidly, the banks’ cost of funds was actually rising more slowly than the official interest rate. Our claim was based on an analysis of data that had just been released by the Australian Prudential Regulatory Authority (APRA).

The Sydney Morning Herald ran the story on its front page and included a quote from the head of the Australian Bankers’ Association (ABA) that was as illogical as it was amusing.

According to the ABA’s Steven Munchenberg:

To be honest we can’t work this out. Performing the same calculation we get the same result but I know it is not right because if it was we would have been beaten to a pulp with this by the government and the opposition.

The ABA subsequently disputed that they agreed with our calculations although they are yet to provide us with any evidence that we made a mistake. The Australian went further and accused the Institute of conducting ‘spoofenomics’ but, again, it provided no actual critique of our analysis.

The Institute will be delivering a comprehensive submission to the Senate Inquiry into Banking. We stand by our analysis and look forward to public scrutiny of the arguments each side has put forward.

It took a couple of years to explain the flaws in the CPRS and it will take a bit longer yet to explain how it is that the profits of the big banks can grow at 15 per cent per annum in an economy that is growing much more slowly than that. This fight isn’t over yet.

Finally, I would like to take the opportunity to thank you all, both for your support and your attention throughout the year. Not only do we rely on your financial support to conduct our research, we thrive on the moral support of knowing that there are people out there who do care about the future direction of Australia, who do care about the development of good ideas and who do care about ‘research that matters’.

Hopefully, with your help, next year will be another big year for the Institute. And don’t forget, if you don’t have any good ideas for Christmas presents, and you hate the idea of wasteful consumption, you can always make a donation to the Institute on behalf of a loved one. Who wouldn’t want more good ideas for Christmas?

But wait, there’s more

While the carbon tax, superannuation reform and bank profits have attracted more than their fair share of attention this year, the Institute has conducted research on a wide range of other topics.

In all, we published more than 20 research papers and 27 opinion pieces. Our research into the number of people missing out on their welfare benefits was discussed in Senate Estimates Committee hearings. Our research on overwork and unpaid overtime underpinned our call for National Go Home on Time Day; our work on community support for nurse practitioners to help take the pressure off GPs preceded a major change in government policy to expand such services.

In addition to our economic and social policy research, the Institute is also a regular user of the Freedom of Information laws to ensure our state and federal governments are transparent. For example, this year we obtained documents that suggest our food regulators have been less than vigilant in their monitoring of the health impacts of chemicals leaking out of plastic food containers. Some of the results of this request attracted headlines in relation to the chemical BPA in plastic bottles earlier this year but, as with our work on banking, this issue isn’t over just yet.
Towards the end of 2009, The Australia Institute published a paper entitled *What you should know about nano*, written by Fern Wickson. The paper cautioned governments and regulators to approach the new nanotechnology with circumspection and some scepticism. Georgia Miller from Friends of the Earth echoes that warning.

The industry has promised that, with nanotechnology, we can have our cake and eat it too.

Big claims are being made about the environmental promise of nanotechnology; both the previous and current federal governments have been keen to portray the new technology as ‘clean and green’. The title of a 2002 paper written for the Commonwealth Department of Industry, Tourism and Resources, *Smaller, cleaner, cheaper, faster, smarter*, is typical. As far as reducing greenhouse emissions is concerned, however, these claims don’t stack up.

With nanotechnology, the industry has promised, we can have our cake and eat it too—environmentally benign economic expansion, a future of high-tech prosperity, new gadgets and gizmos, an end to hunger and poverty … Yet like many things that sound too good to be true, the recent publication from Friends of the Earth, *Nanotechnology, climate and energy: Overheated promises and hot air?*, reveals that nanotechnology’s green claims do not stand up to scrutiny. The nanotech industry has consistently over-promised and under-delivered.

Despite impressive laboratory discoveries in the renewable energy sector, it has all too often been impossible to incorporate these properties in mass-produced products that will actually save energy and be affordable to produce.

In the much-touted field of nano solar, the solar conversion efficiency of nano solar cells remains about 10 per cent lower than that of traditional silicon panels. The durability of some commercial nano solar panels, for example those plastic cells manufactured by Konarka, is as low as three to five years compared with 25 to 30 years for silicon panels.

A group of US researchers has cautioned that amid the buzz surrounding nano solar are ‘questionable claims on the scientific facts’. They suggest that better outcomes would be achieved through greater economies of scale in producing conventional silicon panels. Recent analyses have revealed that the energy demands of manufacturing nanoparticles are much higher than expected, shedding doubt on whether other nano applications that are designed to save energy will actually deliver.

For example, on an equal mass basis, manufacturing carbon nanofibres uses up to 360 times the energy needed to make steel. Proponents have suggested that by strengthening windmill blades with carbon nanofibres, the blades will be lighter, reducing wear and tear and increasing the efficiency of energy generation. However, because of the energy required to manufacture the nano blades, early lifecycle analysis shows that it may be just as energy efficient to use conventional windmill blades.

Similarly, one of the booming applications of nanotechnology is in the use of antibacterial nanomaterials in work wear, socks and other clothes. The idea is that nanoparticles of silver kill bacteria that cause odour, laundry frequency is reduced, and energy saved. The trouble is that not only does the nano silver pose new toxicity risks, the energy associated with producing it may mean that the products come at a net energy cost.

A Swiss researcher calculated that the lifecycle energy costs associated with nano silver T-shirts were greater than conventional T-shirts in two out of three scenarios. Only if there were substantial behavioural change (for example, far less washing of clothes) did the nano silver T-shirt use less energy.

There is also a question mark over how much attention (and research funding) is really being directed to nanotechnology applications that could offer environmental benefits compared to those that simply offer new marketing opportunities.

Nano products that dominate current sales and product inventories, such as cosmetics, personal care products and sports equipment, are not only energy intensive to manufacture, but offer no potential...
For energy savings through their use. The United States President’s Council of Advisors on Science and Technology reports that in 2008, only one per cent of nanotechnology-based products came from the energy and environmental sector.

Marketing of nanotechnology as ‘clean and green’ is undermined by the world’s biggest petrochemical companies using it to find and extract more oil and gas. Halliburton, Shell, BP, Exxon Mobil and others hope that nanotechnology could as much as double the amount of oil able to be extracted from known reserves.

Despite the green rhetoric of successive Australian governments, public funding in Australia (through the CSIRO and universities) also supports nanotechnology research to find and extract more oil and gas.

As we confront climate change, smart technology choices are vital. In many instances, making decisions to change technologies, for example to abandon coal-fired power and to embrace renewables, will have a significant bearing on our ability to reduce greenhouse gas emissions rapidly.

But will new technologies support such dramatic gains in energy generation and efficiency that they will enable ‘business as usual’ growth? A closer look suggests that it is highly unlikely.

By 2070, there may be nine-plus billion people on the planet. Ted Trainer makes the point that if all of them have the ‘living standards’ Australians are predicted to have by then, assuming three per cent annual growth from now, total world economic output will need to be 60 times greater than it is now.

Clearly, reducing the demand for energy is as important as seeking sustainable ways to satisfy that demand. As we consider which technology choices offer the most potential to meet the challenge of climate change, rather than taking the green claims of proponents at face value, we need good information about the true lifecycle energy and greenhouse gas emissions of the alternatives.

When new technology sectors tout their environmental credentials in an effort to win both public hearts and minds and generous research funding, those industries have a responsibility to demonstrate that their green claims stack up.

Public funding should be prioritised to areas that offer immediate potential to reduce greenhouse gas emissions, while not imposing new environmental burdens. Public funding should not be directed to applications that prolong our reliance on fossil fuels. While research in cutting-edge sectors will continue, it is vital to ensure that this is not at the expense of pursuing less glamorous near-term measures to tackle climate change.

A close look suggests that it is unlikely that the new technologies will support such dramatic gains in energy generation and efficiency that they will enable ‘business as usual’ growth.

As we confront climate change, smart technology choices are vital. In many instances, making decisions to change technologies, for example to abandon coal-fired power and to embrace renewables, will have a significant bearing on our ability to reduce greenhouse gas emissions rapidly.

But will new technologies support such dramatic gains in energy generation and efficiency that they will enable ‘business as usual’ growth? A closer look suggests that it is highly unlikely.

By 2070, there may be nine-plus billion people on the planet. Ted Trainer makes the point that if all of them have the ‘living standards’ Australians are predicted to have by then, assuming three per cent annual growth from now, total world economic output will need to be 60 times greater than it is now.

Clearly, reducing the demand for energy is as important as seeking sustainable ways to satisfy that demand. As we consider which technology choices offer the most potential to meet the challenge of climate change, rather than taking the green claims of proponents at face value, we need good information about the true lifecycle energy and greenhouse gas emissions of the alternatives.

When new technology sectors tout their environmental credentials in an effort to win both public hearts and minds and generous research funding, those industries have a responsibility to demonstrate that their green claims stack up.

Public funding should be prioritised to areas that offer immediate potential to reduce greenhouse gas emissions, while not imposing new environmental burdens. Public funding should not be directed to applications that prolong our reliance on fossil fuels. While research in cutting-edge sectors will continue, it is vital to ensure that this is not at the expense of pursuing less glamorous near-term measures to tackle climate change.

A close look suggests that it is unlikely that the new technologies will support such dramatic gains in energy generation and efficiency that they will enable ‘business as usual’ growth.

As we confront climate change, smart technology choices are vital. In many instances, making decisions to change technologies, for example to abandon coal-fired power and to embrace renewables, will have a significant bearing on our ability to reduce greenhouse gas emissions rapidly.

But will new technologies support such dramatic gains in energy generation and efficiency that they will enable ‘business as usual’ growth? A closer look suggests that it is highly unlikely.

By 2070, there may be nine-plus billion people on the planet. Ted Trainer makes the point that if all of them have the ‘living standards’ Australians are predicted to have by then, assuming three per cent annual growth from now, total world economic output will need to be 60 times greater than it is now.

Clearly, reducing the demand for energy is as important as seeking sustainable ways to satisfy that demand. As we consider which technology choices offer the most potential to meet the challenge of climate change, rather than taking the green claims of proponents at face value, we need good information about the true lifecycle energy and greenhouse gas emissions of the alternatives.

When new technology sectors tout their environmental credentials in an effort to win both public hearts and minds and generous research funding, those industries have a responsibility to demonstrate that their green claims stack up.

Public funding should be prioritised to areas that offer immediate potential to reduce greenhouse gas emissions, while not imposing new environmental burdens. Public funding should not be directed to applications that prolong our reliance on fossil fuels. While research in cutting-edge sectors will continue, it is vital to ensure that this is not at the expense of pursuing less glamorous near-term measures to tackle climate change.

A close look suggests that it is unlikely that the new technologies will support such dramatic gains in energy generation and efficiency that they will enable ‘business as usual’ growth.

As we confront climate change, smart technology choices are vital. In many instances, making decisions to change technologies, for example to abandon coal-fired power and to embrace renewables, will have a significant bearing on our ability to reduce greenhouse gas emissions rapidly.

But will new technologies support such dramatic gains in energy generation and efficiency that they will enable ‘business as usual’ growth? A closer look suggests that it is highly unlikely.

By 2070, there may be nine-plus billion people on the planet. Ted Trainer makes the point that if all of them have the ‘living standards’ Australians are predicted to have by then, assuming three per cent annual growth from now, total world economic output will need to be 60 times greater than it is now.

Clearly, reducing the demand for energy is as important as seeking sustainable ways to satisfy that demand. As we consider which technology choices offer the most potential to meet the challenge of climate change, rather than taking the green claims of proponents at face value, we need good information about the true lifecycle energy and greenhouse gas emissions of the alternatives.

When new technology sectors tout their environmental credentials in an effort to win both public hearts and minds and generous research funding, those industries have a responsibility to demonstrate that their green claims stack up.

Public funding should be prioritised to areas that offer immediate potential to reduce greenhouse gas emissions, while not imposing new environmental burdens. Public funding should not be directed to applications that prolong our reliance on fossil fuels. While research in cutting-edge sectors will continue, it is vital to ensure that this is not at the expense of pursuing less glamorous near-term measures to tackle climate change.

A close look suggests that it is unlikely that the new technologies will support such dramatic gains in energy generation and efficiency that they will enable ‘business as usual’ growth.

As we confront climate change, smart technology choices are vital. In many instances, making decisions to change technologies, for example to abandon coal-fired power and to embrace renewables, will have a significant bearing on our ability to reduce greenhouse gas emissions rapidly.

But will new technologies support such dramatic gains in energy generation and efficiency that they will enable ‘business as usual’ growth? A closer look suggests that it is highly unlikely.

By 2070, there may be nine-plus billion people on the planet. Ted Trainer makes the point that if all of them have the ‘living standards’ Australians are predicted to have by then, assuming three per cent annual growth from now, total world economic output will need to be 60 times greater than it is now.

Clearly, reducing the demand for energy is as important as seeking sustainable ways to satisfy that demand. As we consider which technology choices offer the most potential to meet the challenge of climate change, rather than taking the green claims of proponents at face value, we need good information about the true lifecycle energy and greenhouse gas emissions of the alternatives.

When new technology sectors tout their environmental credentials in an effort to win both public hearts and minds and generous research funding, those industries have a responsibility to demonstrate that their green claims stack up.

Public funding should be prioritised to areas that offer immediate potential to reduce greenhouse gas emissions, while not imposing new environmental burdens. Public funding should not be directed to applications that prolong our reliance on fossil fuels. While research in cutting-edge sectors will continue, it is vital to ensure that this is not at the expense of pursuing less glamorous near-term measures to tackle climate change.
In 2009, Australians borrowed $274 billion in home loans and charged $226 billion to their credit cards; they spent more than $60 billion on groceries and more than $21 billion on fuel and electricity. But how much time did they spend thinking about these financial decisions?

Do most Australians behave in the way that economics textbooks and our policymakers assume? Do they spend hours searching for information on the costs and benefits of choosing one product over another? Do most people know how to compare costs today with benefits in a year’s time?

Or do most Australians make most of their financial decisions based on habit, advice from their friends or the first item that appears on a Google search?

New research conducted by The Australia Institute and commissioned by Citibank shows that people make financial decisions in vastly different ways. Some consumers are hyper-vigilant, constantly shopping around for the best deal and investigating every possible alternative. They make financial decisions in a way that economists and policymakers would call ‘rational’, constitute only 22 per cent of the Australian population. The remaining three-quarters are subject to a range of behavioural ‘biases’ that can be to their financial detriment.

The report, Evidence versus emotion: How do we really make financial decisions? identifies a range of categories that we can use to better understand financial behaviour.

Economists and policymakers have for years based their decisions around the concept of that rare species, *homo economicus*. In fact, it is doubtful that such a creature actually exists as the more recent behavioural economists are discovering. Josh Fear examines this conundrum and concludes that more fieldwork is required.

In 2009, Australians borrowed $274 billion in home loans and charged $226 billion to their credit cards; they spent more than $60 billion on groceries and more than $21 billion on fuel and electricity. But how much time did they spend thinking about these financial decisions?

Do most Australians behave in the way that economics textbooks and our policymakers assume? Do they spend hours searching for information on the costs and benefits of choosing one product over another? Do most people know how to compare costs today with benefits in a year’s time?

Or do most Australians make most of their financial decisions based on habit, advice from their friends or the first item that appears on a Google search?

New research conducted by The Australia Institute and commissioned by Citibank shows that people make financial decisions in vastly different ways. Some consumers are hyper-vigilant, constantly shopping around for the best deal and investigating every possible alternative. They make financial decisions in a way that economists and policymakers would call ‘rational’, constitute only 22 per cent of the Australian population. The remaining three-quarters are subject to a range of behavioural ‘biases’ that can be to their financial detriment.

The report, Evidence versus emotion: How do we really make financial decisions? identifies a range of categories that we can use to better understand financial behaviour.

Economists and policymakers have for years based their decisions around the concept of that rare species, *homo economicus*. In fact, it is doubtful that such a creature actually exists as the more recent behavioural economists are discovering. Josh Fear examines this conundrum and concludes that more fieldwork is required.
These categories, and the kinds of financial behaviour that they embody, reflect decades of research in the field of behavioural economics. By studying how human beings behave in the marketplace rather than relying on mathematical models, behavioural economists have shown that the textbook model of the hyper-rational consumer, someone who has access to complete information and evaluates every decision according to their personal self-interest, does not accord with reality. In fact, *homo economicus* is rarely, if ever, seen in the wild.

This has enormous implications for market design, regulation and policy development. If people don’t always look after their own interests and make basic errors of arithmetic, whether in a financial or any other context, we cannot rely on the principle of consumer sovereignty to keep markets in check.

The most important consequence of behavioural economics has been to demonstrate that we need to study people as they are rather than as they ‘ought to be’. The fundamental mistake made by the economics profession many years ago, and used as a basis for theory ever since, is that humans are predictably selfish at all times. In fact, there is little in the known universe that is more complicated than human behaviour.

None of this would matter if policymakers hadn’t spent the last few decades sipping at the font of conventional economic wisdom and basing a broad range of decisions (in industrial relations, international trade, environmental protection and so forth) on ideas about society that were not tested in the field.

Perhaps it’s time to do a little fieldwork. §

---

Australia is feverishly converting some of its most fertile land to urban sprawl and mining projects. In a world with an ever-increasing population and food production already threatened by climate change, is this really the optimal use of prime agricultural areas? This article takes the beautiful Felton area on Queensland’s Darling Downs as an example of what is happening all over the country.

Australia has indeed been a lucky country. Clean air, potable water and nutritious, plentiful food have been taken as given by most Australians, something they did not have to factor into their concerns for a decent life. But a time is looming when all this may change, when the availability of clean air and water and uncontaminated food may become serious issues, confronting people’s minds on a daily basis. These priceless assets are under threat all over the country and one of the most recent battle fields involves the farming community of Felton, 30 km southwest of Toowoomba on Queensland’s Darling Downs.

Six generations have farmed the land around Felton and the care and attention that have nurtured it during the last 150 years shows. It is a stunningly beautiful area, with rich dark alluvial soils, healthy luxuriant crops and sleek rounded cattle chewing drowsily under shady trees. The air is clean and clear, warm and languid on hot summer days, brisk and bracing on frosty winter mornings. It is a small piece of paradise.

But not, perhaps, for much longer. A mere 10 metres beneath the surface lie 900 million tonnes of coal and plans are afoot to establish an open-cut mine in the valley and a petrochemical plant to turn the coal into unleaded petrol and LPG. Ambre Energy (Felton) Pty Ltd, a subsidiary of Ambre Energy Ltd, a public company with offices in Australia and the US, is seeking approval from the state government to take over 2,800 hectares of land in the Felton area for its $3.5 billion coal-to-liquids project. Mining paraphernalia, including large machinery, coal-washing facilities, oxygen and chemical plants, high-temp-

---

Illustrations reproduced by kind permission of John Shakespeare.
A level playing field?

High on the promise of dollars flooding in from one of the earth’s dirtiest fuel sources, the state government appears to have tilted the playing field in favour of the miners and to be doing everything it can to assist them to dig up as much of Queensland as is viable. The new Land Access Laws, soon to come into force in Queensland, deny basic civil rights to landholders who want to prevent miners coming on to their land. In this situation, the company can refer the case to the Land Court and, once this has occurred, the company has automatic right of entry.

In addition, although the government encourages all parties to seek legal counsel in negotiations, landholders are permitted to have a lawyer present only with the consent of the mining company. In the face of profound outrage on the part of landholders, who are threatening to lock their gates against miners, the Queensland premier has recently announced the formation of an ‘enforcement unit’ whose role is to enforce the Land Access Laws, including a fine of $50,000 to be imposed on any farmer who denies entry to a mining company.

Felton is a particularly productive area, generating winter and summer crops, beef, dairy products, honey, vegetables and eggs amongst other items and providing employment for people in the district. If the mine goes ahead, the productivity of the region is forecast to be severely compromised. The topsoil, some of the richest in Australia, will become degraded and although there has been some successful rehabilitation of grasslands and woodlands after mining, there are no reported cases of cropping areas being successfully rehabilitated.

The coal in the Felton area is poor quality with a high ash content. There will be significant waste. Households and farms rely on aquifers and groundwater in the area for household, stock and irrigation water but these sources run the risk of severe contamination and there is no process currently available whereby such destruction can be reversed. In northern and central Queensland, coal mining has left the rivers so high in heavy metals that the water is no longer fit for human or animal consumption.

When the miners leave, much of the lovely soft landscape of Felton will have gone too; Isengard will have replaced the shire. Degraded and contaminated soil, polluted waterways and unhealthy air will not generate the cornucopia of goods that Felton currently produces. The question might be asked, ‘What does it matter if a few farmers lose their properties and a bit of agricultural land is destroyed because of mining—surely the financial benefits outweigh these considerations?’ Indeed, a survey taken in the district earlier this year suggests that a majority of people are in favour of the mine.

But is this right question? World population is growing steadily and is projected to increase for some time to come. Already people are hungry, there have been food riots in some countries and food security is becoming a major issue confronting the planet. Australia is a significant food exporter and its food security is becoming a major issue confronting the planet. Australia is a significant food exporter and its food

How ironic it is; Australia is abandoning its capacity to produce clean, wholesome food while ramping up its capacity to produce dirty, polluting coal. The mine at Felton is projected to discharge yearly some three million tonnes of CO₂ into the atmosphere, in addition to the poisonous waste it will need to dispose of safely, if that is not a contradiction in terms. And this at a time when the developed world, concerned with the impact of climate change, is seeking technologies to replace fossil fuels and when some of the developing world is going hungry.

Agriculture, properly managed, is a sustainable industry and can continue to produce wealth for the country into the future. Mining is not. Within the lifetimes of many Australians alive today, much of the mineral resources of the country will have been exhausted. Because many of the mining companies are overseas corporations, the profits generated will not remain in the country and, in exchange, Australia will be left with damaged soils, contaminated water and air, ill health and a skewed economy.

“Take what you want and pay for it”, says God, an old Spanish proverb that warns people to be prepared to suffer the consequences of their actions. It appears that we have forgotten the last part of the warning; we take what we want but when the consequences of modern greed sheet home to us, are we going to be prepared to pay the price?
The year 2010 has seen a number of staff changes at the Institute. We have lost several members of staff including Tully Fletcher, Dr Hilary Bambrick, Dr David Ingle and Kerrie Tucker, who has moved to Melbourne to be closer to her family. Many thanks to all four for the fine work they accomplished for the Institute. This month, thanks to a special grant, we have been able to employ Ben Irvine as a research assistant to provide back-up for our busy researchers and also to assist with the development of our survey capability. Welcome Ben—we hope that that you find your time at the Institute a very happy and stimulating experience.