

Fairness matters

Paper to accompany presentation to ACOSS National Conference, April 2009

Ian McAuley, University of Canberra and Fellow, Centre for Policy Development

Introduction – fairness matters

This audience hardly needs reminding that fairness matters. To many hardheaded economists, however, including those in government agencies, fairness is only a secondary consideration in public policy – something for the “soft left” to worry about.

To counter this notion, I want to concentrate on economic aspects of fairness, emphasizing one aspect particularly relevant to our time, namely the way we allocate risk across our society.

In relation to risk there are two basic inequities. One arises from the legacy of outdated categories of “labor” and “capital”, to which is attached the idea that because financiers contribute capital to productive enterprises, because they take the risks, they should be compensated with appropriate rewards. The other inequity arises from the way we have increasingly left people, including the least advantaged, to rely on flawed and high risk private markets to provide those buffers which would be more fairly and efficiently be provided by governments, while privileging some of the most reckless and irresponsible people in private corporations with government largesse for their risk-taking.

First, a look at how economics handles fairness.

Pareto's boats and public policy

“A rising tide lifts all boats” is the often heard metaphor to describe a society in which everyone becomes better off, even if disparities widen. It has become a justification for unfairness.

For much of recent history economic philosophy (and therefore public policy) has been in a struggle between two strong ideas, those of Jeremy Bentham and those of Vilfredo Pareto.

Bentham (1768 – 1832) was a liberal political philosopher, a child of the Enlightenment, with radical ideas for his time, such as equal rights for women, abolition of slavery, and abolition of the death penalty. His political philosophy has been claimed both by the right, because of its emphasis on individualism, and by the left, because of its emphasis on maximizing “utility” for all, or, in more commonplace terms, maximizing the community’s “welfare” or “happiness”. As an aside, his ideas were particularly influential in the young Australian colonies, as they forged a political identity which would distinguish Australia from the Old World.

In the Benthamite world, redistribution is justified on the basis of the notion of what economists call “diminishing marginal utility”.

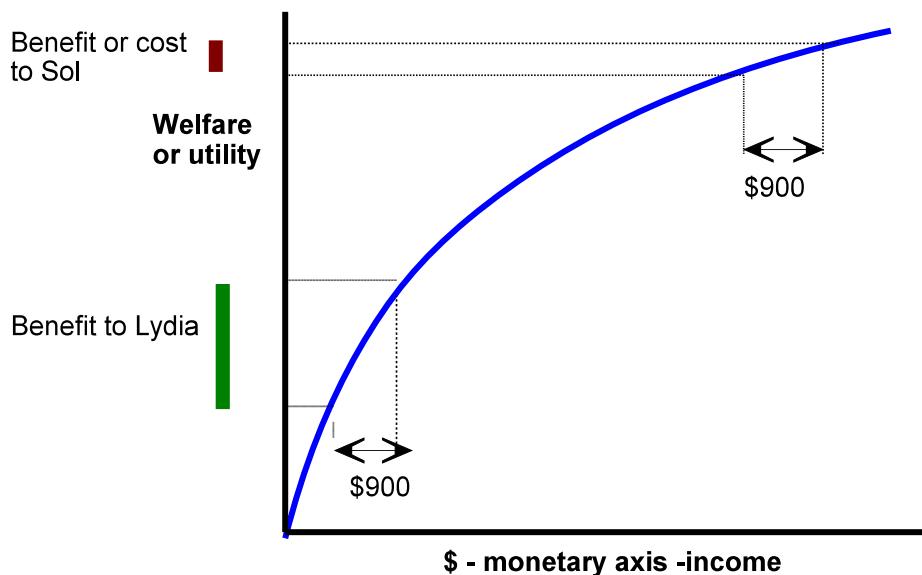
To illustrate, consider two hypothetical people. I’ll call one Sol, who has been an executive in a large company and has had a generous termination payment. And there’s Lydia, who is

similarly out of work, but she was a machine operator at a clothing company which has recently shifted offshore. Both are eligible for the Government's \$900 stimulus payment. Sol has a good accountant who has got his taxable income down to poverty line levels, while Lydia needs no accounting contrivances to show a low income.

Think of the benefit of the \$900 to these two people. By any stretch of the imagination the benefit to Lydia must surely be more than the benefit to Sol (assuming Sol even notices an unrequited \$900 deposit in his bank account).

What I have just illustrated is the Benthamite notion of *diminishing marginal utility*. By the same notion, overall welfare would be improved if we were to take the \$900 from Sol and give it to Lydia, for the welfare loss to Sol would be less than the welfare gain to Lydia. See Figure 1 for a conventional graphical presentation of this model.

Figure 1. Benthamite redistribution illustrated



Such a notion of welfare lies behind economic policies such as progressive taxation and means-tested benefits. Australia, for example, pioneered age pensions and used to have steeply rising marginal tax rates, as high as 66 cents in the dollar for high income earners, and our old sales tax system imposed high taxes on luxuries.

The economic philosopher whose ideas have tended to dominate in the last thirty years, however, is Pareto (1848 – 1923), who essentially said that it is impossible to compare and add or subtract different people's welfare. According to the Pareto principle in economics, we can consider welfare to improve only if some are made better off, while no-one is made worse off. Thus, if economic growth is accompanied with widening inequality, it's still beneficial, just so long as no one goes backward. If Sol gets \$900 while Lydia gets \$9 or even nothing,

that's a Pareto improvement, but if Sol is taxed \$900 to transfer a benefit to Lydia, that is not a Pareto improvement, because we cannot say anything about how Sol and Lydia value \$900.

It's not hard to see the weaknesses in this economic philosophy, which completely ignores distribution. It has been a convenient justification for rising inequality in times of strong economic growth, however, for it absolves the privileged from being concerned with inequality – if I become better off then society is better off. What's good for me is good for Australia.

This barren philosophy, however, comes under strain when the tide is falling. It is morally repugnant to many people, and it fails to recognize the economic cost of inequality.

The economics of inequality – perspectives of an errant economist

The “errant economist” is Thomas Schelling, a pioneer in behavioral economics, particularly the application of game theory to economic situations, and winner of the 2005 Nobel Prize in economics.

Let's look at some of the games and simulations typical of those Schelling would apply to his experimental subjects.

The first is the *ultimatum game*. Player A, the “offerer”, has temporary control over \$10. She is to propose division between herself and Player B, the “acceptor”. If player B accepts the proposed division, then the division occurs. If player B rejects the proposed division, then both parties forfeit.

By the logic of Pareto economics, Player B, the “acceptor”, should accept *any* division – \$1.00/\$9.00, or even \$0.05/\$9.95. But, in repeated round experiments, researchers find that “acceptors” reject such imbalanced divisions, preferring to walk away empty-handed. And, unless prompted, “proposers” tend to offer divisions close to a 50:50 split.

Another simulation is an experimental pair of questions:

- A) You are going to buy a good quality digital camera. It is available at a local camera store for \$1000. It is also available at a store, twenty minutes drive away, for \$970. You have no prior relationship with either store. Do you travel across town to buy the cheaper camera?
- B) You are going to buy a radio. It is available at a local store for \$70. It is also available at a store, twenty minutes drive away, for \$40. You have no prior relationship with either store. Do you travel across town to buy the cheaper radio?

Now the calculating economist, *homo economicus*, should apply the same decision to both these situations, based on whether he or she estimates the personal cost of a journey to be greater or less than \$30. But many more people travel in situation B than in situation A.

These and similar simulations demonstrate that most of us are willing to bear some personal cost in order to avoid a transaction which we consider to be unfair. In the ultimatum game we lose the amount we may have gained from agreeing to an unfair division. In the travel simulation we may consider a three percent price differential to be reasonable and not bother

travelling across town, but a 75 percent price differential suggests that the local supplier is trying to rip us off.

We punish unfair behavior, at personal cost, in the first case by denying the proposer her share, and, in the second case, by denying our custom, even if we incur more than \$30 in travelling costs in doing so.

And another simulation.

For each of the situations below, indicate on a scale from 0 to 10 how upset you would be.

- | | | | |
|---|---|----|-------|
| 1. On an unsealed country road you put a stone through the muffler on your car, which will cost \$500 to repair. | 0 | 10 | <hr/> |
| 2. At work you act in a higher position for four weeks, for which there is usually a \$125 a week extra pay, but you don't get the extra pay. | 0 | 10 | <hr/> |
| 3. At a crowded venue you discover your wallet/purse has been taken. It had \$500 cash in it; fortunately your driver's licence, credit cards etc were elsewhere. | 0 | 10 | <hr/> |
| 4. You take an overseas trip, spending \$2500. On the plane you discover the person in the next seat has bought the same package for \$2000. | 0 | 10 | <hr/> |
| 5. You have been trying to sell a used car for \$7500. Two buyers have inspected it and gone away. One has phoned you back with an offer of \$7000, which you have accepted. Ten minutes later the other buyer phones offering \$7500. | 0 | 10 | <hr/> |
| 6. You have an operation which requires an anaesthetic. The schedule fee for an anaesthetic is \$400. The bill you get from the private anaesthetist is \$900. | 0 | 10 | <hr/> |
| 7. In a violent storm the roof of your house develops a leak and the damage costs \$500 to repair. (Your insurance deductible is \$1000.) | 0 | 10 | <hr/> |
| 8. You make a donation of \$500 to a charity devoted to children who have been injured by landmines. A week later you read in the paper that the charity was a scam. The money will never leave Australia, and will be absorbed in "consulting fees". | 0 | 10 | <hr/> |

If you scored every situation identically, on the basis that every one involves a loss of \$500, then you must be a very well-conditioned economist, ready to take up a senior position in the IMF or even in the Australian Treasury.

But, of course you probably don't see these situations identically. You probably dismiss a leaking roof or a punctured muffler with a couple of curses, but the discovery that you have been scammed keeps you awake at night in anger. We are not passive creatures carrying a personal ledger measured by cash flows, but we are very concerned by the legitimacy of transactions.

Lest we believe these findings relate only to laboratory findings, we can find them manifest in everyday life. We need look no further than the anger at AIG executives; in relation to what they have cost due to their incompetence, the \$250 million bonuses are trivial – about one tenth of one percent of the federal bail out money. But our disproportionate anger arises because we consider these bonuses to be unfair; we are more forgiving of incompetence than of theft.

Another case, closer to home, is provided by toll roads. When traffic experts calculate the savings in terms of vehicle wear and time saved, road tolls seem to be a good bargain. To take Sydney's cross city tunnel as an example, a \$4.16 payment to avoid 13 sets of traffic lights and heavily congested roads looks like a good deal. But the tunnel was a financial flop, and it went broke because the traffic projections were not met. I suggest the reason was that people did not consider it as fair that so many parties had their fingers in the till. (Public-private partnerships are an absurdly expensive way to fund infrastructure, but that's another story.)

The hardheaded economics of fairness

Some hardheaded economists would argue that it's irrational for us to be concerned with fairness. We would all be better off if we keep our emotions at bay and accept what we can get; it makes no sense for us to incur a cost just to punish someone else who's doing better than us. And, as an appeal to higher authority, they may remind us that envy is one of the seven deadly sins – think how often a proposal to bring more equity into public policy is dismissed as "the politics of envy".

The shortcoming of this view is that it models behavior on a purely individual basis. It's poor economics. When open-minded economists such as Schelling, systems theorists such as Natalie Glance and Bernado Huberman, and social scientists such as Robert Axelrod, get together, they find social cooperation can be a significant asset in evolutionary adaptation.

In simple terms, groups which cooperate can accumulate more resources than those in which each individual looks only after himself or herself. In groups without cooperation individuals must devote significant resources protecting their own interests, for fear of predation by other group members. We can see this most clearly in so-called "failed states", where trust and therefore social cooperation have evaporated. Groups with strong norms of cooperation are more productive, because individuals can spend less effort protecting their own interests and can spend more effort contributing to their own and collective interests. In other words, if we are not fending off marauding competitors we can actually do something useful. In this way, groups with strong norms of social cooperation can accumulate more resources in the form of

both individual and collective wealth than groups with weak cooperation. One such set of norms relates to fairness.

Of course cooperation can be enforced without regard to fairness. There can be systems of enforced cooperation ranging from strong anti-union legislation through to slavery. But, particularly as shown in research in the US comparing productivity before and after Emancipation, slave labor is much less productive than free labor. There are two reasons. One is that coercion is costly; as people lose trust in one another they have to spend more on coercive mechanisms. In a slave society those mechanisms are guards and supervisors, in a modern society those mechanisms are contracts, legal services, accountants, police forces etc. The other reason is that, as psychologists know, coercion through punishment elicits at best sullen compliance, rather than productive effort. Even the much-maligned Frederick Winslow Taylor pointed this out: when the laborer Schmidt found he could share in the rewards from his effort, his output rose strongly.

Public health research, such as Michael Marmot's famous Whitehall studies, and more recent work such as the research of Richard Wilkinson and Kate Pickett, finds that societies with fairer distribution of economic power, such as Japan and the Nordic countries, have less violence, better health, and longer life expectancy. These are economic benefits, as such societies need spend less on services such as policing, rehabilitation and health care, but, by quirks of national accounts (which record the costs of running jails, for example, as economic "output"), they do not show up easily in national accounts.

Social cooperation also allows for role specialization. When people feel they can trade in fairly constructed labor and commodity markets they are likely to engage in specialization and trade, thereby realizing further economies. Note, for example, that in societies with underdeveloped markets or with markets dominated by strong parties, there is often reliance on inefficient means of production, such as barter and attempts at household self-sufficiency. While we may have a romantic attachment to such arrangements, they do involve a large opportunity cost.

These arguments are not a soppy "left" defense of fairness. Rather, it's a hardheaded description of why norms of fairness are basic economic assets. It helps explain why it makes evolutionary sense for individuals to exert effort to punish those who violate such norms. It explains the value of unrequited altruism, ranging from giving way to others in a traffic jam through to sacrifice in battle.

Role specialization inevitably means different people will be exposed to more or less risk – test pilots and accountants bear different levels and types of risk. And role specialization is costly, for specialization requires investment in skills. Unfortunately, in our categorization of "labor" and "capital", we do not fully recognize such investment and its risks. That's the subject of the next section of this paper.

Workers as risk-taking capitalists

We bear the legacy of early Industrial Revolution ways of thinking, particularly about how we classify what economists call the "factors of production". These three factors are *land* (or natural resources), *labor* and *capital*. We hear reference to these factors, such as in the

recently-produced Commonwealth's consultation paper on Australia's future tax system, in which there is a clear distinction between taxing labor and taxing capital (investment), and which raises the question that perhaps we should be shifting the tax base away from capital.

This division rests on a model of the economy in which the entrepreneur makes a large and risky investment. According to this model the entrepreneur takes many risks – risk that the technology will become outdated, risk that competitors will do a better job, and risk that market fashions will change. By contrast, all the worker has to do is to turn up to work and get paid. If one company goes broke, the worker can move to another. The only risk the worker faces is a macroeconomic one of a recession or depression, but provided a high level of employment can be maintained, the worker faces no risk.

That model, and its associated classifications, is seriously outdated.

For an illustration, consider the recent closure of the BHP nickel mine at Ravensthorpe in Western Australia. I'm not trying to single out BHP, which, by comparison with other multinational mining companies, has a good record of labor relations, but I do want to use this closure to illustrate a point about how risk is distributed.

To start with the perspective of "capital". While BHP-Billiton is clearly suffering from depressed commodity prices, it is hardly under any risk of bankruptcy. Ravensthorpe is only one of BHP's many operations. Even if the company itself were in trouble (as some mining companies are), few shareholders would be severely hurt by the company's demise, for almost all shareholders, through superannuation funds or diversified personal holdings, have shares in other companies. They stand to lose only part of their capital and income. And, of course, they have no long term commitment as owners; a few strokes on a computer keyboard can acquire or dispose of BHP-Billiton shares.

To move to the perspective of "labor". Many people have invested heavily in developing skills relevant to mining. Many have developed further skills described as "firm specific" – that is, a set of skills relevant to the Ravensthorpe mine, and not immediately transferred to another establishment. (Compare that situation with the "investor's" few clicks on a keyboard.) Some have bought houses in the area, have sent their children to local schools, and have invested in the local community in many ways. And of course the loss of a job and reversion to a Newstart allowance is catastrophic to the individual, quite different from a downturn in another individual's share portfolio.

Now it's gratuitous to point out the unfair distribution of risk in this and similar situations. But the point I want to stress is that we will find it hard to develop a fairer system of economic rewards until we re-frame our thinking, particularly away from the old labor/capital divisions – a way of thinking which is deeply entrenched, from Karl Marx through to industry lobbyists. We need to look more fundamentally at what we mean by the term "investor", and to appreciate how investor risk is distributed.

Our Government has announced an aspiration to have 40 percent of young people participate in post-secondary education by 2025. Few would question the desirability of such an upgrade of our skills, but we need to realize that we are asking people, perhaps as young as 14, when they start to take on elective school subjects, to make decisions involving risk. These decisions are investment decisions. They are investments in human capital, and they involve

much more commitment, with far fewer escape routes, than the decisions faced by a plant manager deciding to invest in a piece of machinery, or by a shareholder deciding how to allocate a portfolio.

We cannot avoid risk, and, as the \$500 exercise shows, we are accepting of risk when we see no evil intent. But we can ameliorate its consequences. And we can provide mechanisms which provide a backstop for those whose investments in human capital turn sour. Unless we provide such mechanisms we will lose out, for we will become more risk-averse. For example, in the absence of such mechanisms, young people choosing tertiary studies, are likely to opt for low-risk low-reward courses such as “business studies”, which will always provide adequate skills for low grade clerical work, rather than high-risk courses such as mechanical engineering or drama. Without well-designed safety nets risk aversion will dominate, at a huge economic cost as we become less risk-taking and less entrepreneurial.

Schemes such as universal tax-funded health insurance, unemployment and retraining benefits, and assured retirement pensions, are not just some distributive luxury. Rather, they are economic assets underwriting the risks which people are called upon to take in an energetic and innovative society., where some people will inevitably find their risky investments fail.

But, rather than strengthening those mechanisms we already have, we have gone horribly wrong in the rewards and punishments for risk taking. We have rewarded the recklessness of the privileged, while leaving many of the weakest in society unnecessarily exposed to high risk in flawed private markets as we wind back forms of collective insurance.

The risk-shift society

“We will establish a National Compensation Scheme to reduce the hardships imposed by one of the great factors for inequality in society – inequality of luck.”

That was Gough Whitlam’s promise in his 1972 election speech, and he tried to make good on that promise, establishing a committee, headed by Justice Owen Woodhouse, to inquire into and recommend on a national rehabilitation and compensation scheme, to replace fragmented transport accident, workers’ compensation and other schemes, in which outcomes largely depended on the luck of the draw and on one’s access to a sharp lawyer.

The committee reported in 1974, and recommended a scheme which would provide high income support (85 percent of pre-incident income) to those suffering illness or injury, irrespective of cause.

The reaction to the recommendations was hysterical. Doctors and tort lawyers saw lucrative sources of income threatened. Life and general insurance companies were even more horrified; they even encouraged their employees to take to the streets to protest about such a threat to their jobs.

The hysteria was enough to give the opposition-controlled Senate an excuse to block the government’s legislation giving effect to the recommendations. We now realize, however, that the insurance industry’s opposition to government underwriting of risk is strangely absent when the injured are the insurance firms themselves.

Shortly after, in 1976, an inquiry headed by Keith Hancock recommended a partially contributory, universal pension system with an earnings-related supplement. By then the Whitlam Government had lost office, and the report fell on deaf ears.

Ten years later, even though Labor had returned to office, the political scene had changed. The insurance industry was given a boost by the Hawke Government's introduction of compulsory occupational superannuation. Initially this was a small contribution at three percent of income, and was designed more for immediate macroeconomic needs rather than as a retirement income scheme, but by 2003 it had risen to nine percent, and there is now pressure to take it up to fifteen percent.

This has been a compulsory privatization of retirement savings for all but those eligible for the full pension. The aspect that is of most relevance in the context of risk is that, unlike almost every other developed country, our scheme carries the risk of personal accounts. To illustrate this risk, consider someone with 40 years of work, with an income of \$60 000 (inflation-adjusted) over that period. Assuming a real (inflation-adjusted) average return of four percent, with a plus or minus distribution of two percent, his or her retirement accumulation and the pension it can finance will vary over the range shown in the table below.

Real return	Retirement accumulation \$'000	Pension \$'000
2%	290	27
3%	360	33
4%	450	42
5%	570	53
6%	720	67

It may be surprising that a two percent swing around a mean can have such a strong effect, but that's the power of compounding over a long period. In fact, such differences in returns can be explained by fees alone; differences in pre-fee returns can result in an even wider spread, even for similar products such as "balanced funds". Two people, in similar occupations with similar incomes over their working lives, can find their retirement outcomes varying between poverty and high comfort.

It is absurd to believe that individual investors should be able to assess these differences at the time they make their fund choices. Even well-informed investment specialists cannot make such predictions. Essentially individuals are left to take their chances in a lottery, with very little hedge cover (other than a parsimonious age pension).

The calculations in the above table assume a well-functioning market for private pension products, but in reality the odds are stacked against retirees who depend on financial institutions. While it is easy to buy a term pension (which lasts for a defined period) or an allocated pension (which lasts until funds are exhausted), it is very difficult to get a lifetime pension which lasts until death. Insurers claim that they have retreated from this market because of what is known as "longevity risk" – the risk that you or I on retirement may have the indecency to live beyond our statistically determined life expectancy. Longevity risk is

shifted away from the so-called “insurer” (which has the capacity to pool risks, and to hedge longevity risk against death policies), back to the individual.

In house insurance, it is easy for people to find themselves under-insured, not because they have underestimated the present replacement value of their house, but because their house is lost in a regionally concentrated incident, such as Victoria’s recent fires, Canberra’s fires in 2003, or the 1989 Newcastle earthquake. In such instances authorities generally apply higher and more expensive requirements for re-building, and there is usually a regional shortage of tradespeople, resulting in higher building prices. In such cases individuals are left bearing open-ended risk, while “insurers” cap their own risk. (Only a small number of insurers provide cover against such inadvertent under-insurance.)

Following the Victorian bushfires the Insurance Council made an extraordinary call for compulsory home insurance in fire-prone areas, and suggested that relief funds not be made available to people who were not insured. What they neglected to mention, however, is that house insurance is an expensive product: about 30 percent of premiums are absorbed in administration and profits. And, insurers are all too willing to insure small items, where their risk is contained, but are unwilling to offer affordable risk-sharing products, in which the insured person takes a known risk, say of the first \$10 000 or \$20 000, while the insurer covers the open-ended risk. (Insurers play on people’s risk aversion and difficulty in understanding risk by offering policies to cover trivial risks, such as freezer contents, or by selling quite unnecessary cover such as extended warranties.)

In private health insurance, even the most expensive ancillary policies cap the health insurer’s liability, leaving consumers bearing the open-ended risk.

The feature that these and other policies have in common is that they leave individuals bearing open-ended risk, while the firm contains its risk. In fact, most products called “insurance” should not be called by that name; it’s a cruel hoax to play on consumers who believe they are insured when they are left bearing open-ended risk. At best their offerings should be called “limited insurance” or “bill paying supplementation”.

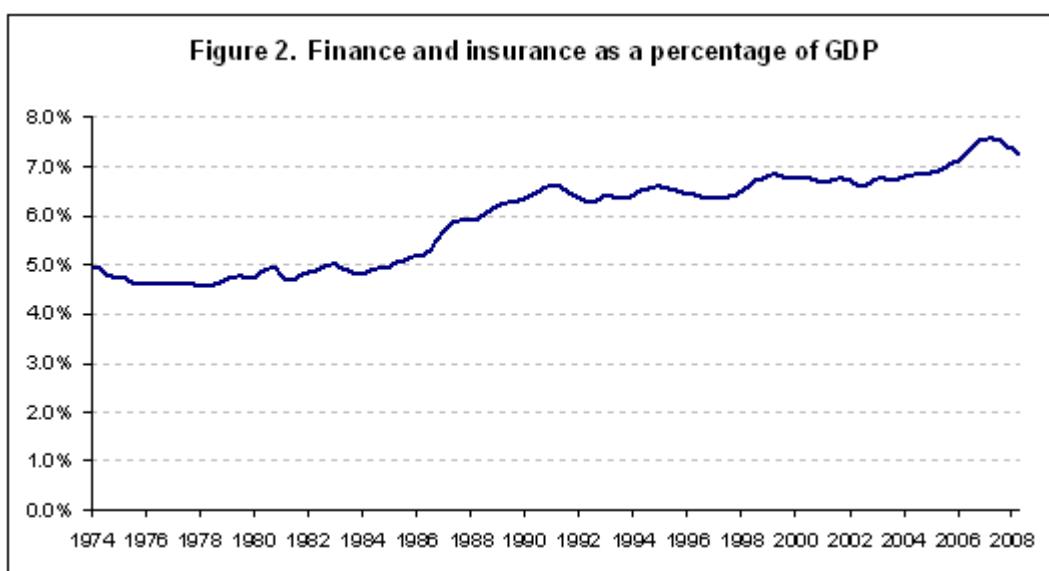
As a consequence of our privatization of risk, we are left seriously exposed in some areas and over-insured in others. The risks described above relate to everyday and unavoidable risks, such as fire, ill health and unemployment. But there is another class of risk, of collapse of financial markets.

It is obvious in the current crisis is that private markets are not good at providing cover against significant risks, particularly those that arise because of the nature of the financial system. Private markets can do a reasonable job in covering against risks which have neat, normal, distributions around a mean, and such models form the basis for financial market operations, which, based on certain assumptions about rationality and well-informed actors, can keep the financial system humming along in more or less stable equilibrium.

But the world is not so neat, and occasionally there come along events way outside the range of the models, what Nicholas Taleb calls “black swans” (in a world conditioned to seeing white swans). And the mechanisms which are designed to bring stability, such as hedge funds, can actually develop wild and uncontrollable positive feedback loops which promote instability. That’s the system failure we are now experiencing.

Conclusion – closing the casino

In the financial system we are seeing the worst case of market failure in 80 years. Over the last thirty years in particular, the finance sector (including insurance) has moved from a role of serving the real economy (the economy where people make things and provide real services for one another) to become a huge parasite on the real economy. Over the period 1974 to 2008 the sector “finance and insurance” has grown from under five percent of GDP to more than seven percent of GDP – a period when one would have expected the huge gains from information technology to have seen the cost of financial services reduce, rather than expand.



Note, from Figure 2, the growth spurt in the mid 1980s when the Hawke Government deregulated the finance sector. From then on, many of those employed in finance lost all contact with the real world, as they traded between one another in products such as collateralized debt obligations and credit default swaps that were separated by many stages from any real assets.

Even as a parasite the sector has not been particularly clever. Intelligent parasites try to maintain an equilibrium with their hosts, but this one has been dumb enough to inflict severe damage not only on its host but also some of its own species.

Perhaps the greatest damage the financial sector has imposed is a destruction of norms of fairness. For many years we have seen bigger and bigger profits accruing to financial firms, and bigger and bigger returns to their senior managers, even as the crisis develops. As one commentator has said, the captain and crew have grabbed the lifeboats for themselves.

Financial systems rely on trust, but those in the financial corporations have lost our trust, and have lost the trust of one another; that’s why it’s so hard to get credit flowing again.

It is not just the clear criminals like Bernie Madoff who have let us down; they are only the extreme examples, scapegoats paying the price for much wider bad behavior. Every trader

who lived in the make-believe world of finance bears some responsibility. They came to believe that they were creating wealth (they still talk about “wealth management”), when all they have been doing is shuffling money around, and keeping some for themselves. Money is not “wealth”; it is merely a partial and flawed representation of wealth. So too do our politicians bear some responsibility, particularly those in office over the boom period who took credit for the booms in asset prices (which were nothing more than price inflation).

It is because there has been a loss of trust that it is so hard to get the financial system re-established, and that is why governments need to go much further than they have done so far. It’s not just about re-jigging a few regulations, or clawing back a few bonuses. We need to atone for the broken trust. We need to live in a society where we know the economic rules and norms are fair: otherwise we will withdraw from productive economic cooperation.

The financial system needs re-designing, so that it serves the real economy rather than itself. As John Hewson has said, arguing for a fundamental re-design of our financial systems:

“If we learn anything from this crisis, it should be that economic growth based on excessive liquidity, debt and greed is unsustainable.”

The real economy does not need all the opaque and manufactured complexity that has been built up over the last twenty years. All it needs are a few simple instruments, such as shares, loans, and a limited range of hedge products to cover real trade and investment transactions. The rest is fluff, and expensive fluff at that.

Such a re-design may take out some of the fun in the sector. Most of the people who are still working in the sector may need to go and get real jobs. But it will dramatically reduce the risk of economy-wide damage, and will allow governments to underwrite the risks of people doing useful work and taking risks that, in aggregate, will have some productive payoff, rather than playing computer games with other people’s money.

It was Keynes who warned about the risk of the capital development of a country becoming the by-product of a casino. As we know, in a casino the only assured winners are the casino owners. In a well-functioning capital market serving the real economy there is still risk to investors as they take on the normal risks of technologies, markets etc, but by good regulatory design there is protection against “casino risk” – the risk that the market will be transformed into a casino by those with no concern for the real economy, and whose attention is focussed on the high rollers rather than on sober investors..

It’s time to close the casino.
