

### 3 What's a fair share?

WHEN HE was mayor of Shanghai in the 1980s, Jiang Zemin discussed Chinese–Australian relations with me on many occasions. Shanghai is a great centre for steel and wool textiles and he recognised the quality of Australian services, so we had a lot to talk about. Over dinner we would move on to the respective contributions of American presidents to their country and to the world. When I joined Jiang in reciting the Gettysburg Address with the fruit at the end of a meal, he kept us going when a word slipped my mind.

Back in Beijing, at the beginning of the 1990s, China's recently appointed president invited me to call in. Democracy sounded good in theory, he told me, but it didn't work in practice. You had to be rich to reach the top of the political system, he said. Money bought policy. In China under the leadership of the Communist Party, government could make decisions in the national interest and enforce them in the national interest.

I responded that it wasn't at all like that in Australia. I explained the autonomy of Australian political leaders, and the role of independent perceptions of the national interest in big Australian policy decisions.

Twenty years later, a different Chinese president and the premier met Prime Minister Gillard on a Chinese visit in April 2011. Jiang would have received a report from all of the meetings of the Australian delegation, and I hope that he saw the evidence on my side of our old argument.

The visit was joined by senior Australian business leaders, who met with the leaders of major Chinese state-owned enterprises. The Chinese delegation was led by Chen Yuan, chairman of the China Development Bank and son of a legendary Communist Party figure from the great debates of the 1950s through the 1980s, Chen Yun. The Australian delegation comprised a 'who's who' of Australian big business.

Chinese business leaders reinforced the Chinese Government's emphasis on energy efficiency and reducing emissions in their country's 12th five-year plan. Australian business figures raised doubts about the Australian Government's carbon tax.

One wonders what Jiang has made of it all.

Over the past four years, China has moved decisively on policy and action on climate change. Four years ago China was hiding behind the Kyoto special treatment of developing countries to resist making any commitments at all. Today, the transition to a low-carbon economy is a central feature of the

five-year plan. China is shifting the relationship between economic growth and greenhouse gas emissions.

The Australian political community, on the other hand, was just deciding to catch up with the rest of the world in May 2007, when the Howard government received the report of the Prime Ministerial Task Group on Emissions Trading, but is more undecided today, despite Australia being the developed nation that is expected to be most badly affected by unmitigated climate change.

The 2008 Review argued that only a world bound by agreement on greenhouse gas reduction could avoid great damage from climate change. Acting on this proposition, however, entailed resolving a ‘prisoner’s dilemma’—a situation in which each country pursuing its own narrow self-interest would make decisions whose overall effect would be the worst possible outcome for them all. I described this then as a diabolical policy challenge.

Remarkably, the world is resolving the dilemma. This breaks several expectations. From its inception in 1990, the United Nations process that was crystallised in the Kyoto Protocol in 1997 divided developed from developing countries, and only the developed were bound by a specific emissions target. The Kyoto agreement set a goal for developed countries together to reduce emissions by 5 per cent below 1990 levels between 2008 and 2012 (the first commitment period).

The position that only developed countries should have emissions targets was thought to be appropriate for four reasons: the developed countries were responsible for most of the emissions already accumulated in the atmosphere; they were still responsible for most emissions; they could more easily afford the cost of adjustment to a low-carbon economy; and they were in a better position to develop and deploy new low-emissions technologies. The Howard government spoke for us in 1997 and concurred.

In making major mitigation efforts, developing economies have overlooked the agreed ethical obligation of developed nations and overturned a decade or more of global diplomacy.

### **Kyoto revisited**

So, how did this come to pass? Apart from the position that only developed countries should accept emissions constraints, the Kyoto model had other flaws. Rather than articulating principles for allocating responsibility for emissions responsibility, it left the job to politics, arm-twisting and negotiations.

The Kyoto agreement was also damaged by the refusal of two of the developed countries to ratify the agreement they had helped to negotiate.

The Clinton administration had not been able to secure congressional support for the ratification of Kyoto. The Bush administration that was elected in November 2000 elevated non-ratification to a policy objective. After the 2000 election in the United States, Australia followed a similar path until it ratified the Kyoto Protocol in 2007 in Bali.

When countries that had ratified the Kyoto Protocol met in Bali in December 2007 to continue discussions about post-2012 mitigation targets, three emerging realities shaped the agenda. The first was a universal recognition that human-induced climate change was 'unequivocal' and its fallout was going to be large. Second, there was a growing domestic interest in the United States from outside the administration and international pressure on the United States to commit its fair share to global mitigation efforts. Third, there was growing recognition that emissions from developing countries would account for much of the future growth in global emissions. Developing countries would have to constrain emissions sooner rather than later.

In response to these three challenges, parties to the UN Framework Convention on Climate Change reached an agreement on the Bali Action Plan, which set out a two-year road map for negotiations on two tracks to settle the scale and scope of post-2012 commitments. Developed countries were to agree on a new set of commitments on emissions reductions under the second commitment period of the Kyoto Protocol due to commence in 2013. All countries were to agree to a 'shared vision' in Copenhagen to underpin a post-2012 agreement consistent with a pathway to avoiding dangerous climate change.

In practice, the United States agreed to take on mitigation commitments or actions comparable to those of the other developed countries in the Kyoto Protocol. China and the developing world also agreed, for the first time, to consider mitigation actions. However, there was no agreement on whether the Bali Action Plan would lead to legally binding commitments by either developed or developing countries under the Convention.

It was clear well in advance of the climate change conference in Copenhagen in December 2009 that officials would be unable to deliver a clearly defined and comprehensive set of binding commitments to mitigation. It was this long-anticipated failure of the formal negotiations, as well as the diplomatic fiasco that accompanied it, that dominated media coverage of the event.

In the event, a group of global leaders pulled together what became known as the Copenhagen Accord. This was not formally agreed at Copenhagen. Since important elements of it were accepted at Cancun a year

later, it has been recognised that the accord was a major and positive step in international climate change efforts.

The Copenhagen conference also marked the serious multilateral re-engagement of the United States on international climate change efforts after a gap of nine years. And on the developing country side, some major countries (Brazil, South Africa, India and China) emerged as an influential negotiating group. As well, interaction between China and the United States was, for the first time, explicitly at the centre of possibilities on a major multilateral issue.

The parties had stopped short of formally approving the Copenhagen Accord, thus preventing it from becoming the core decision of the Copenhagen conference. However, it was noted by the conference, and parties were invited to bring forward pledges to reduce emissions.

Following Copenhagen, the UN Framework Convention parties met again in Cancun in December 2010. In contrast to the exceedingly high expectations for Copenhagen, public expectations were low for Cancun. As it turned out, the 2010 meeting worked diplomatically and the Cancun Agreements consolidated and cemented the Copenhagen Accord. They are now widely seen as a new beginning for international climate change efforts. Cancun provides further building blocks towards a comprehensive international agreement that includes emissions constraints by all major emitters.

The main outcomes of Cancun were:

- agreement to anchor under the UN Framework Convention the content of the Copenhagen Accord, including:
  - a global mitigation target—that global warming should be limited to below 2°C above pre-industrial average global temperatures, with periodic review to consider strengthening this long-term goal, including to 1.5°C (the first review is to begin in 2013 and conclude by 2015)
  - pledges made by all developed and major developing countries to constrain emissions
- establishment of a new Green Climate Fund to support developing countries' climate change responses; a collective commitment by developed countries to provide US\$30 billion in fast-start finance in 2010–12; and a commitment to mobilising US\$100 billion per year in public and private finance by 2020 in the context of meaningful and transparent mitigation
- a mechanism to deliver economic opportunities for developing countries to reduce emissions from deforestation and forest degradation

- new rules on measurement, verification and reporting and international consultation and analysis to ensure that all countries can see what others are doing to tackle climate change
- agreement to provide strong and practical support for vulnerable developing countries to manage unavoidable climate impacts, including the establishment of the Cancun Adaptation Framework to enhance adaptation efforts by all countries
- establishment of a mechanism to help deploy clean energy technologies around the world.

Another important development at Cancun was Japan's unequivocal statement reiterating its position from Copenhagen—that, while it would commit to major reductions in emissions, it would not enter a target in a second Kyoto commitment period. Other countries, including Canada and Russia, are likely to follow Japan.

Cancun may therefore mark the beginning of the end of the Kyoto regime and, accordingly, the end of the twofold structure of climate change effort. This is not a bad thing, so long as a number of unequivocally positive achievements of the Kyoto years are preserved. An arrangement within which all countries make commitments to limit emissions and to report on their progress under one universal instrument is more likely to lead to an effective global outcome than the old separation of developed and developing countries.

## **The new regime**

It is taking some time for the reality to sink in, but there was a fundamental change in the international climate change regime at Copenhagen and Cancun. The regime changed to meet the requirements of the United States and the major developing countries. The changes for developing countries were essential because of the new power relations that were emerging in the Platinum Age and accelerated by the Great Crash of 2008.

While the change in the United States presidency from Bush to Obama meant that the US Government was now a strong supporter of national and international mitigation, and the 2008 changes in the Congress were supportive of the president, the United States continued to balk at being bound by an international agreement.

The Copenhagen Accord was worked out by the large countries that wanted, or whose national policies and objectives required, a change in the global regime—the United States, China, India, Brazil and South Africa. There

was a strong global agreement at Cancun, but not the agreement that Australia, among a number of developed countries, had been working towards.

The new regime carries on a number of elements of the old. It continues the definition of greenhouse gases and the way of calculating national emissions, and the processes for agreeing to change these methods over time. It carries forward agreements and discussions of the several mechanisms for assisting developing countries with reducing their emissions and adapting to climate change. It defines emissions reduction targets in terms of emissions within one's own boundaries—a production rather than consumption basis for calculating national emissions. It allows countries to meet part of their emissions reductions requirements by purchasing entitlements from others who are overachieving on their own targets. Finally, it carries forward and in a sense fulfils several of the objectives of the Kyoto arrangements, most importantly through the objective of containing global warming to below 2°C.

It also changes or abandons some features and aspirations of the Kyoto regime. It has secured commitments to emissions constraints that are far wider in their scope and quantitatively far more important than those made at Kyoto in 1997. However, these have been voluntarily offered by the country making the undertaking, and have not been agreed in a political negotiation. The process, which had been suggested by the Australian delegation as a way out of an impasse in Copenhagen, is described as 'pledge and review', and it is hoped that the review component will lead over time to some broad equivalence among the pledges being made. This has been described as a 'bottom-up' approach, which is contrasted with the 'top-down' approach at Kyoto. And it does not pretend that these are legally binding agreements; they are serious national and international political commitments but are not enforceable in courts of law.

How important are the two main innovations in the Cancun form of international agreement: the unilateral nature of the emissions reduction commitments, and their voluntary—but legally unenforceable—nature?

There would have been advantages in a comprehensive global agreement on emissions entitlements covering developing as well as major developed countries that 'added up' to the global temperature objective and to the emissions budget that was implicit in that objective. We would have arrived at a set of national commitments that would, if implemented, solve the problem. And we would have had a firm basis for international trade in entitlements, where countries that were having difficulty meeting their targets purchased permits from countries that were able to constrain emissions by more than was required by the agreement.

The negotiated commitments on emissions constraints would have resolved the prisoner's dilemma problem in one hit, by assuring each country that it could rely on others doing enough to solve the global problem if it took strong action itself.

What, then, are the advantages of binding commitments? They would provide support for global international trade in entitlements. Trade would reduce the costs of emissions reductions for the world as a whole and for each country. Trade would also establish a single price for entitlements in all countries that participated without limits in trade in credible emissions permits. The firm and verifiable nature of the commitments, with international trade in entitlements, would give rise to the single price—the price would be the same in a country with targets that required large absolute reductions in entitlements as in one in which entitlements were based on reductions in emissions intensity of output. The single price, in turn, would remove distortions in international trade in goods and services associated with variations in the costs of reducing emissions across countries. It would therefore remove any case for assistance to trade-exposed industries in any country, with potentially large and beneficial implications for the public finances and for the integrity of policy-making processes in all countries.

These advantages were discussed at length in the 2008 Review. The advantages of a comprehensive and binding international agreement that adds up to the global emissions budget are as strong in 2011 as they were three years ago. Such an agreement remains the Holy Grail.

As we have seen, long before the Copenhagen conference in December 2009 it was clear that a 'top-down' agreement was beyond reach. Apart from anything else, it was clear by early 2009 that the work at the official level was simply not being done to allow heads of government to reach comprehensive agreement in anything but the most general terms.

A formal comprehensive global agreement on emissions entitlements remains beyond reach for the foreseeable future. Only an agreement built around non-binding, unilateral commitments, albeit disciplined by peer review, had—and has—any early prospect of being acceptable to the United States and to the major developing countries.

On the other hand, experience since Copenhagen has demonstrated that Cancun-style agreements, beyond being necessary to secure commitments from some countries that are crucial to a successful global emissions reduction effort, have the large advantage that they encourage greater ambition in each country's emissions reduction effort.

Some countries would be unable or unwilling to make any commitment at all if it were binding under international law. Others would be less ambitious. The United States and India at present fall within the first category, and China the second.

This tendency for international commitments to be stronger if they are not legally binding is not confined to climate change negotiations. Governments have often been prepared to go further with domestic trade liberalisation in the context of less formal discussions than in formal negotiations directed at a legally binding agreement. The far-reaching trade liberalisation right through the western Pacific region from the mid-1980s to the late 1990s occurred within a context and doctrine of ‘concerted unilateralism’, in which countries reduced their own trade barriers without formal reciprocity from others, but in confidence that they would not be entirely alone. Reciprocity was diffuse rather than specific. The pace of liberalisation everywhere slowed sharply when ‘concerted unilateralism’ gave way to formal negotiation of legally binding preferential trade agreements from the beginning of the 21st century.

The problem with unilateral non-binding commitments, at least in their early iterations, is that they are unlikely to add up to the required amount of emissions reductions. This is the case with the first round of commitments within the Cancun Agreements.

The other problem with non-binding commitments is that they provide a less firm foundation for international trade in entitlements.

Whether these are serious or even fatal flaws depends on what happens next.

### **What next for the international climate change regime?**

Now that a set of commitments has been placed on the table, we can add them up and assess the extent of the global constraint on emissions that they imply. Some of the commitments, including the European and Australian, contain unconditional and conditional elements, so that they are extended if others are pledging more. Future pledges will be more ambitious and move more closely towards what is required to reach the global temperature goal if there is confidence that others are going forward as well. There is a possibility that we will move towards more ambitious goals through an iterative process. A possibility but, of course, not a certainty. What is certain is that we would not have got far in 2009 and 2010 if we had taken the view that we had to negotiate an agreement that added up to the Cancun 2°C objective in a single step.



In addition to developments within the UN Framework Convention, the international climate change regime is also likely to be influenced by discussions occurring outside these processes, including in the G8, G20 and Major Economies Forum. For example, since late 2009, fossil-fuel subsidy reform has been elevated in the international energy, climate change and finance agendas. In his opening statement to a conference hosted by the Global Subsidies Initiative of the International Institute for Sustainable Development and United Nations Environment Programme in October 2010, the Deputy Director-General of the World Trade Organization, Harsha V. Singh, characterised fossil-fuel subsidy reform as one of the most important tools to combat climate change.

Discussions relevant to the international climate change regime will probably continue to evolve for some time along a number of tracks. The benefits of this include greater collaboration and trust between countries, leading to a greater willingness to make deep, reciprocal commitments. These developments could then be brought to account at a later date in the context of the UN Framework Convention.

It turns out that the difference between binding and non-binding agreements is not as wide in practice as this description suggests. The notionally binding commitments under the Kyoto Protocol turned out not to be legally enforceable in practice; and all countries at this stage are treating Cancun statements on emissions constraints as serious domestic and international political commitments. The US Government is treating its Cancun target as a serious objective of domestic policy and taking steps towards its fulfilment. China and India have made achievement of their emissions intensity targets central features of their five-year economic plans.

To the extent that the commitments are objectively determined in specific and verifiable emissions targets, even if these are intensity targets, they can be the basis for mutually beneficial trade in entitlements.

Not all countries would benefit to the same extent from international trade in entitlements, and not all countries need to join in for large gains to accrue to participating countries. A regional climate change agreement could generate most of the gains for participating countries of global trade if it included countries tending to large imports of permits *and* countries tending to large export of permits. This could be built on the targets and rules for measurement, verification and reporting from the UN Framework Convention, but these do not need to be agreed in that multilateral context. If each member country were free to buy or sell emissions permits with countries outside the agreement, the regional agreement would be good for members while doing

no harm to outsiders. There would be none of the damaging ‘trade diversion’ of traditional regional preferential trade agreements.

### **Assessing fair shares**

So, in light of the new climate change regime, how do we assess each country’s fair share of effort to reduce greenhouse gas emissions? We are seeking a practical answer to a practical question.

What is fair is in one sense what turns out to be acceptable for enough countries to make global mitigation work. Each sovereign state has to form its own judgment about whether and how much to contribute to a global mitigation effort. Explicitly or, more commonly, implicitly, it will go through the calculations that were undertaken for Australia in the 2008 Review and summarised in this book.

The world has groped its way towards the conception of what a fair share is in the Cancun Agreements. Developed countries have pledged to reduce the absolute amount of emissions by specified percentages. Major developing countries have pledged percentage reductions in the emissions intensity of production, or percentage reductions below business as usual.

These are not bad starting points. They need to be developed in a couple of ways.

While both developed and developing countries must enter commitments to constrain emissions, a distinction can be drawn on the way those constraints are set. An international agreement can work with developed countries accepting targets for absolute reductions in emissions, and developing countries targets for reductions in emissions intensity. What is missing are rules for the transition of a country from developing to developed status.

I suggested in the 2008 Review that the transition can take place when a developing country’s emissions per person reach the (falling) average level of developed countries. That still seems practical as well as ethical.

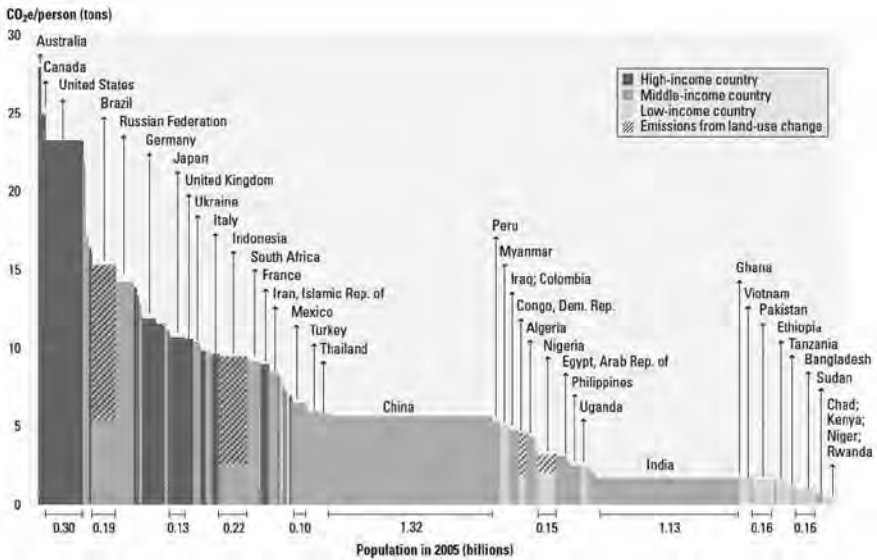
The targets based on intensity and business as usual need to be defined precisely and quantified to make them verifiable and to provide a firm basis for international trade in entitlements. The intensity targets lend themselves more easily to precise quantification. They are a better basis for further development of the Cancun approach.

And a means has to be found for calibrating effort across countries: what percentage reduction in emissions in each developed country and in emissions intensity in a developing country represents a fair share?

The 2008 Review argued that a ‘modified contraction and convergence’ framework was the best approach to calibrating fair shares across countries.

This was based on the practical consideration that no basis for allocating entitlements to emissions would be broadly acceptable unless it allowed similar amounts of emissions to each person. It was not practical to move to equal entitlements per person overnight from the current position. The starting point on emissions per person ranges from Australia's 27 tonnes per person a year, to and below India's almost 2 tonnes (see Figure 3.1).

**Figure 3.1: World Bank's chart of emissions per person in selected countries**



Note: The width of each column depicts population and the height depicts emissions per person, so the area represents total emissions. Emissions per person of Qatar (55.5 tonnes of carbon dioxide equivalent per person), United Arab Emirates (38.8) and Bahrain (25.4)—greater than the height of the y-axis—are not shown. Among the larger countries, Brazil, Indonesia, the Democratic Republic of Congo and Nigeria have low energy-related emissions but significant emissions from land-use change; therefore, the share of land-use change is indicated by the hatching.

Source: World Bank 2009, *World development report 2010*, p. 39.

Under contraction and convergence, the allocation for each country would move from its current level of emissions to equal entitlements per person in some later year. This is the convergence part. The contraction part is that total global emissions would fall from current levels to a much lower level at a specified date—a level low enough to meet the climate change objective.

It was not practical for developing countries, which were growing quickly with rapidly increasing emissions, suddenly to converge towards a low level of entitlements per person. The 'modification' part of 'modified contraction and convergence' is to allow rapidly growing developing countries to operate within an emissions intensity target for the time being. When they reached

average emissions per person of the developed countries, their emissions per person would converge on the low emissions per person towards which other countries were moving.

The 2008 Review calculated a global emissions budget over time and allocated entitlements to draw on that budget within the modified contraction and convergence framework. Convergence would occur in 2050, by which time all countries would have entitlements per person below one-half of the current world average, or a bit below India's current level. This was broadly consistent with stabilisation (with overshooting) of emissions concentrations at 450 parts per million. This was the framework that gave rise to the 2008 Review's recommendation on targets for Australia and indicative targets for other countries.

The rationale for this approach is ethical as well as practical. It is ethical in that it does not place additional new hurdles in the way of raising living standards for millions of the world's poor at an early point in their countries' economic development. While efficient approaches to reducing emissions can hold costs to manageable levels, it is equitable that a higher proportion of those costs be borne by richer countries.

Two other considerations colour the ethical debate. There were two main criticisms of the 2008 Review's modified contraction and convergence approach, from commentators in India and China in particular. First, some commentators thought it unfair that those countries which happened now to have some of the highest emissions per person—Australia, Canada and the United States among developed countries—should continue to occupy that position for a long time into the future. Second, some critics thought that account should be taken of the historical reality, that developed countries had been responsible for most of the accumulation of greenhouse gases that has brought the world to its current dangerous position. There may be an emerging understanding that historical responsibility is handled best by developed countries assisting mitigation and adaptation in low-income developing countries.

It so happens that modified contraction and convergence gives similar results for Australia to percentage reductions from a base year. With contraction and convergence, Australia's high starting level of emissions causes the rate of reduction in emissions entitlements to be higher than it would be with simple percentage reductions from a base year. Australia's high population growth rate brings it down. Australians should recognise that the broad approaches to emerge from Cancun suit their national interests as well as any of the feasible alternatives.

The intensity approaches to emissions reductions pledged by major developing countries at Cancun are also broadly similar in structure to modified contraction and convergence.

Note that the targets for reducing emissions or emissions intensity relate to entitlements and not to emissions within a country's borders. This means that neither a country nor a firm operating within it is disadvantaged by having its exports concentrated in emissions-intensive industries—as Australia has with gas and coal and China with manufacturing—so long as two conditions are met. All substantial countries must accept targets; the way in which the targets are set is not important to the point under discussion. And there must be international trade in entitlements. The trade causes the carbon cost to be embodied in the world market price for the product, which allows the country and firm to recoup the cost of buying entitlements. Deep trade among a set of countries which includes major sellers and buyers of entitlements is enough to secure these benefits; not all countries need to participate in trade.

### **Lost alternatives**

It has been suggested that quite different approaches to assessing fair shares would be better in principle or better for Australia than those that were the subject of the Cancun Agreements. The first of these is a 'consumption' rather than a 'production' approach to calculating emissions. The second is comparing explicit or implicit carbon prices rather than emissions levels.

Neither of these alternatives could be chosen unilaterally by Australia, and the established approaches are now deeply entrenched in international agreements to which Australia is a party. The alternatives are theoretical rather than practical possibilities.

One important reason cited in the 2008 Review for choosing a production over a consumption basis was greater ease of measurement and administration. This is still a consideration today.

Would a consumption approach be better for Australia if the world had gone that way? Certainly Australia, like China, has an unusually high level of emissions embodied in its exports. This affects the baseline from which changes in emissions are measured, as well as the changes in themselves. Over long periods, Australia's entitlements may be higher or lower with a consumption approach.

Would it have been better to use explicit or implicit carbon prices rather than emissions as a basis for comparing mitigation efforts?

Explicit prices would not serve. The international community decided long ago that countries would be free to choose their own preferred instruments

for reducing emissions. Carbon prices have not been used as a major mitigation instrument in many countries, despite this being the means of reducing emissions at lowest cost. This reflects a range of political economy and administrative constraints, which would not be easily removed.

All interventions have an implicit carbon price—or, as the Australian Productivity Commission has pointed out, two implicit prices, relating to encouragement of supply of low-emissions production and discouragement of consumption. The careful work of the commission is demonstrating that implicit prices would be unsuitable as well as impractical as a basis for comparing different countries' efforts. The interventions are so numerous, and so varied across activities, that the calculations for each country are complex. If used as a basis for determining comparable effort across countries they would be contested. Once carbon prices, explicit or implicit, became a basis for international comparisons of effort, they could be easily manipulated by governments.

More fundamentally, it is difficult if not impossible to define what is a measure imposed to reduce emissions. In reality, governments seek multiple objectives in many policy measures that have the effect of reducing emissions. How much was the 'pink batts' subsidy introduced in Australia in the aftermath of the Great Crash a response to climate change, and how much to other things? When President Obama in his 2011 State of the Union address said that America should encourage clean energy to 'strengthen our security, protect our planet, and create countless new jobs for our people', did the multiple objectives dilute its value as a climate change measure?

We can be more specific. A proliferation of health and general environmental, as well as greenhouse gas, concerns have combined to make it virtually impossible for a construction permit to be granted for a new coal-fired power station in the United States today. In addition, some highly polluting coal-based generators are being forced into retirement. These are among the most important of the mechanisms through which the United States may reach its 2020 emissions reduction targets. If we are seeking to calculate the implicit carbon price in the United States, should these restrictions on coal-based power generation be included? The Productivity Commission had to answer this highly practical question in its study of carbon pricing. It chose to exclude these considerations. This is a defensible position. So would the alternative have been defensible.

Consider similar issues in China, relating to the much higher price of electricity to manufacturing plants that exceed some threshold in intensity of energy use and emissions. Or new instructions reported in the *People's Daily*

in May 2011, that power and manufacturing industries exceeding specified emissions intensities would be closed. Again, the Productivity Commission's decision to exclude such measures from implicit pricing was defensible. At the same time, these are powerful mechanisms for reducing emissions. The decision could easily have gone the other way.

Outside the scope of the Productivity Commission's work, how would we view the withdrawal of the normal value-added tax rebates for the most emissions-intensive manufacturing industries, including aluminium, steel and cement? This was a climate change measure, but also met the various Chinese goals for reducing energy use.

It is impossible to draw distinctions on the basis of the motives of policy-makers.

What matters is not the motives, let alone the stated motives, for a policy decision that leads to reductions in emissions. What matters is the reduction in emissions. Facing up to this reality leads us back to comparing actual changes in emissions—absolute or intensity of production—as the best as well as the most practical way of comparing contributions to the global mitigation effort.

Some Australians argue that some of these countries—notably the two largest, China and the United States—have not adopted carbon pricing, and that Australia would be getting ahead of the world if it did so. Yet the mainly regulatory measures being taken by those countries impose greater costs on business and on their communities' standards of living than carbon pricing. This is clear from economic analysis. The Productivity Commission report on emissions pricing should provide empirical evidence on the costs of regulatory approaches to reducing emissions. While the higher costs of emissions reduction in other countries should not be counted as a contribution to the mitigation effort, neither should it count against them so long as they are meeting their commitments to constrain emissions.

## Conclusion

Against all the odds, there is an international agreement on mitigating climate change. The world is on its way towards substantially reducing emissions growth.

There is a long way to go before the prospective costs of dangerous climate change have been reduced to acceptable levels. Success will come from building on current achievements of the international system, and not from starting again. Australia's strong national interest in effective mitigation is served by helping to make the emerging arrangements work.