

Implications of Work Choices Legislation

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It is widely recognized that the character of Australia's industrial relations systems and institutions have changed dramatically over the last two decades. Most obviously, wages and employment conditions are no longer so dependent on arbitrated awards and instead are much more likely to be the product of enterprise and workplace bargaining (Wooden, 2000). But despite the major changes that have occurred, the current Coalition Government has long made it clear that, in its view, the reform agenda was far from complete and that not for a hostile Senate, further change could have been expected. The opportunity to press ahead with this agenda was thus delivered at the 2004 federal election when the Coalition, unexpectedly, won control of the Senate.

Following the election victory the government began developing a program of legislative reforms intended to facilitate what the Prime Minister, in a statement to parliament on 26 May 2005, described as 'the modernisation of Australia's workplace relations system'. More specifically, the stated aim was to bring about a simpler workplace relations system that provided greater primacy to the making of agreements at the workplace level. In the PM's view, such a system would result in 'high productivity, increasing real wages, choice and flexibility'.

The centrepiece of that legislative reform program, the *Workplace Relations Amendment (Work Choices) Act 2005* (from hereon referred to simply as 'Work Choices'), has drawn highly vociferous responses from many quarters of Australian society. Predictably, it has attracted favourable responses from employer organizations and hostile reactions from the trade union movement. The Australian Chamber of Commerce and Industry (ACCI, 2005:5), for example, described it as an 'historic step forward for Australia' and predicted that 'the reforms should kickstart another round of productivity growth' which ultimately will mean more jobs and higher real wages. In contrast, the position of the Australian Council of Trade Unions (ACTU) is that workers will be far worse off. According to ACTU President, Sharan Burrow: 'The clear goal of the Government's new workplace law is to boost the profits of big business at the expense of the basic rights and living standards of working Australians'. She went on to assert that the 'new laws will hurt the most vulnerable workers and reduce the job security and living standards of all Australian workers and their families' (ACTU, 2005). The ACTU position is also one that appears to be shared by a large number, if not the majority, of industrial relations academics in this country. For example, in a submission to the Senate Inquiry into the Work Choices Bill, a Group of 151 Australian Industrial Relations, Labour Market, and Legal Academics (2005:43) claimed that the proposed legislation will 'have no direct

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positive impact on productivity and, through it, wages or employment growth' and instead 'will contravene long established international labour standards, strengthen employer prerogative, create new hazards for many working Australians, widen inequality and disadvantage the most vulnerable'.

The aim of this paper is to briefly review this debate. The paper begins with an overview of the Work Choices Act. It then turns to a discussion of how these changes might (or might not) impact on employment and productivity.

The Work Choices Act: The Key Elements

While the legislation is very complicated, lengthy (the Act runs to over 750 pages), and seemingly affects in some way almost every aspect of the previous legislation, the major reforms implemented can be distilled to quite a short list, the most prominent of which are briefly described below.

- Creation of a national labour law system based on the corporations power in the constitution. Essentially all employees of constitutional corporations will be covered by the *Workplace Relations Act 1996*, leaving only employees of unincorporated businesses and state governments to be covered by the state systems (thought to be around 15 per cent of all employees in Australia).
- Creation of a new body — the Australian Fair Pay Commission — responsible for establishing and varying the federal minimum wage, all other wages specified in awards, and casual pay loadings.
- Abolition of the no-disadvantage test and its replacement by the Australian Fair Pay and Conditions Standard covering just five basic conditions — award rates of pay, maximum ordinary hours of work, annual leave, personal and carers leave, and parental leave. These five conditions will be the only award conditions which cannot be varied or excluded in a workplace agreement. Further, in the event of the termination of an agreement it is these five minimum conditions that the parties fall back to.
- Major changes in the nature and operation of federal awards. Included here are: rationalization of the current award structure; further reduction in the number of allowable matters; and restricting the ability of the Australian Industrial Relations Commission (AIRC) to vary awards to cases where such variation is justified on rationalization, simplification or minimum award safety net grounds.
- With the exception of the five minimum conditions, workplace agreements will replace all award conditions that otherwise would apply to the workers covered by these agreements. Registered individual agreements (that is, Australian Workplace Agreements, or AWAs) will also take precedence over collective agreements, even if those collective agreements are currently in operation.
- A much simpler approval process for agreements, with all agreements, both collective and individual, needing only to be lodged with the Office of the Employment Advocate (OEA) to take effect. Financial penalties, however,

will be incurred by employers if any breaches in the agreement-making process are reported and proven. Examples include: failure to provide a copy of the proposed agreement to employees at the beginning of the 'consideration period'; failure to secure approval for the agreement from a valid majority of employees (if a collective agreement) or from the employee concerned (if an AWA); failure to lodge the agreement with the OEA within 14 days of approval being obtained from employees; and lodging an agreement with prohibited content (for example, clauses which restrict the use of contractors or provide redress for unfair dismissal).

- Significant changes to the way unfair dismissal laws operate. Most noticeably, all firms with 100 or fewer employees will be exempt from the operation of unfair dismissal laws. Furthermore, for employees of larger employers there will be a 6-month qualifying period and any dismissal on the grounds of 'operational requirements' will not be covered by these laws.
- A significantly reduced role for the AIRC. As already noted, the AIRC will no longer have responsibility for setting and varying award wages and its discretion to vary other conditions in awards will be severely curtailed. The AIRC will continue to have a potentially important role in the settling of disputes, but even then all parties to the dispute must agree to the involvement of the AIRC.
- Stronger laws in relation to industrial action. Included here are: providing quicker remedies for unprotected action; requiring secret ballots to be held before any protected action can be taken; requiring the AIRC to order that any unlawful action stop; the prohibition of all industrial action during the term of an agreement; and providing the Minister the power to terminate a bargaining period if industrial action is threatening significant damage to the economy.
- Tighter rules governing rights of entry by trade unions to workplaces.

Employment Consequences

One of the major claims of the government is that Work Choices will help create jobs. This might occur via restraining the rate of growth in wage costs, reducing other non-wage labour costs, and second-round output effects. The discussion to follow focuses on the possible impacts of a change in minimum wage setting institutions and in the reduction in firing costs arising from changes in unfair dismissal laws. Work Choices, however, will also affect bargained outcomes for some workers on above award wages. Indeed, it is often claimed that under the new regime individual agreements will be far more attractive partly because they make it far easier for employers to reduce wages and other conditions below what was previously obtained via a collective agreement (for example, Peetz, 2005). At this time all we can really say is that some workers will be 'worse off' in terms of pay and conditions under Work Choices. What we cannot predict is how many workers will be so affected. Nevertheless, the certainty that labour costs for at least some over-award employees will be reduced compared with the

counterfactual makes the possibility of positive output effects even more likely. The section thus concludes with a brief discussion about the channels through which these output effects can be expected to operate.

Minimum wages

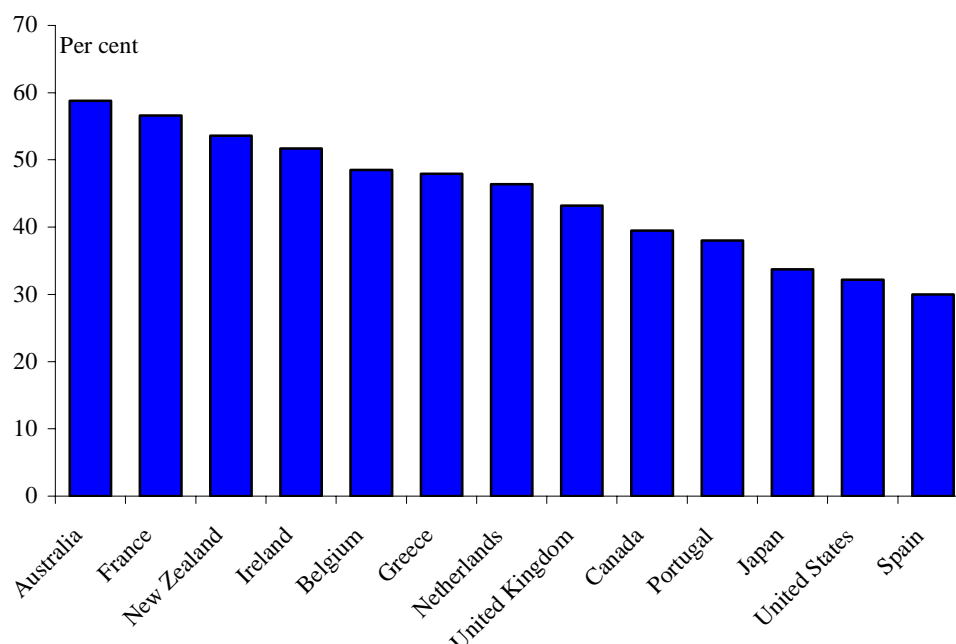
One of the features of Work Choices that has received considerable attention is the transfer of responsibility for setting minimum wages from the AIRC to a new body, the Australian Fair Pay Commission (AFPC), which will report directly to the Minister and operate entirely independently of the AIRC. The widely held presumption is that the government expects the AFPC to deliver lower rates of increase in the minimum wage than would have been delivered by the AIRC, which in turn should promote employment growth among the low-paid.

The expected positive employment response hinges on two assumptions. First, that employment growth of the low skilled is responsive to real wage cuts, and second that the AFPC will deliver different minimum wage outcomes than the AIRC.

The first issue is one that until about a decade or so ago there was relatively little disagreement — the quantity of labour that a firm will hire typically varies inversely with the price of that labour, and so long as there is excess labour (unemployment) any increase in the wage required to be paid will lead to a reduction in the level of employment, though the size of the negative effect was usually judged to be quite small. That consensus seemingly evaporated in the 1990s following the publication of results from a number of so-called natural experiments in the US (see Card and Kruger, 1995). In this body of research teenage employment was actually found to rise in response to minimum wage increases. The debate about the impact of minimum wage increases on employment in North America continues, though few researchers have been able to replicate the finding of a significant positive employment response.

As a guide to likely employment effects in Australia, however, the US debate is of limited relevance. As Hamermesh (1993:191) has noted, if the minimum wage is far to the left in the wage distribution, as it is in the US, then aggregate employment effects will never be large. In Australia, however, the minimum wage is much closer to the middle of the wage distribution. The UK Low Pay Commission (2005:233-241), for example, reported on data for 13 OECD countries for 2004 which showed that relative to full-time median earnings, the adult minimum wage in Australia was higher than for any other country in their list (see Figure 1). As such, changes in minimum wages are likely to affect many more workers and potential workers in this country than in other countries, and especially the US.

Figure 1: Adult Minimum Wages Relative to Full-time Median Earnings, Mid-2004: OECD Countries



Source: UK Low Pay Commission (2005:237, Table A4.2).

Perhaps Australia would do better to draw on the experience of other countries with relatively high minimum wage levels, such as France. At first glance, however, a review of the evidence from French studies suggests highly mixed findings, with some researchers reporting negative employment effects (Bazen and Skourias, 1997, Abowd *et al*, 2000) and others unable to detect any significant impacts (for example, Dolado *et al*, 1996, Machin and Manning, 1997). A key feature of minimum wage setting in France, especially during the 1990s, however, was that government often offset the impact of minimum wage increases on labour costs by offering tax exemptions on payroll taxes targeted on low-wage labour. Empirical research that does not take this into account can thus be expected to understate any employment effects. The importance of this has been demonstrated by Kramarz and Phillippon (2001) who used individual-level longitudinal data from the French Labour Force Survey over the period 1990 to 1998 to compare the effects of changes in minimum total labour costs (the statutory minimum wage plus employer-paid payroll taxes) on workers employed at the minimum wage (the treatment group) with those employed marginally above it (the control group). Their difference-in-difference estimates suggested a very substantial elasticity of demand (-1.5) for minimum wage workers.

Nevertheless, while the relative level of the minimum wage may be similar in Australia and France, that is about as far as the similarity extends. With respect to

other labour market policies and institutions, the two countries are very different. What is needed are estimates based on Australian data. Unfortunately, there are relatively few studies of the employment impacts of the minimum wage in Australia that can be taken seriously. Both Mangan and Johnston (1999) and Junankar, Waite and Bellchamber (2000) investigated the impact of minimum wages on teenage employment using aggregate time-series data and reported little evidence of any significant detrimental impacts, but neither of these studies provide a credible test. As highlighted by Card and Krueger (1995:183), in the time-series approach the counterfactual is not obvious. It is also not obvious that there were any major variations in the level of minimum award wages over the periods studied. Minimum award wages were generally raised in a fairly predictable fashion, mostly in line with prices, and so would have been factored into the hiring policies of most firms. As a consequence, minimal employment impacts are exactly what would be expected.

The Card and Krueger solution is to identify ‘natural experiments’ with which to evaluate the impact of minimum wage increases. To date, the only Australian study that has attempted to estimate the effect of minimum wages on employment within a quasi-experimental setting is Leigh (2003; 2004a). He examined six rises in the statutory minimum wage in Western Australia, comparing the differences in employment in Western Australia before and after each rise with differences in employment over the same period in the rest of Australia (the control group). In his corrected results (Leigh, 2004a) the estimated ‘minimum wage elasticity’ is -0.29, and this effect rises to about -1 for young people, the group for whom minimum wages have the greatest bite. That is, a one per cent increase in the minimum wage reduces aggregate employment for persons in the 15 to 24 year old age group by one per cent compared with the outcome in the absence of the minimum wage increase.

Leigh’s study, while the most important empirical contribution yet to the Australian debate, is not beyond criticism. Indeed, Watson (2004) provides a spirited critique. Most of these criticisms were countered by Leigh (2004b) in his rejoinder. Nevertheless, one of Watson’s key claims — that, in the absence of a true experiment, the difference-in-difference approach is unlikely to perfectly control for all relevant influences deserves to be taken seriously. But surely this means that better data will be needed before the different protagonists in this debate can be reconciled; it does not mean rejecting Leigh’s research as unhelpful (as Watson does). And even if Leigh’s results are rejected, the only conclusion that should be drawn is that we still do not know how large the impact of minimum wage increases is on employment in Australia. The lack of convincing evidence does not mean there is no impact.

Let us assume that the demand for labour is responsive to changes in the real wage, a conclusion that sits well with the considerable empirical evidence on the elasticity of demand for labour (see Webster 2003). Will simply transferring powers from one body responsible for minimum wage setting to another make a difference? This is an issue I have discussed at length elsewhere (Wooden, 2005), so let me jump straight to the answer — a modest difference at best.

Assume for the moment that the new AFPC decided that it would be appropriate to reduce the real level of the minimum wage to bring it more in line with the levels in most other OECD countries, say something around 45 to 48 per cent of median earnings. Since the AFPC is prevented from reducing any nominal wage rates below their current level, this would effectively mean holding the minimum weekly wage at its current level and letting inflation erode the real value. The idea here of course is that by letting the real value of the minimum wage fall, demand for low-wage workers will be stimulated. Out-of-work benefits, however, are indexed to either prices or average male earnings, and so will continue to rise and eventually the benefits from not working will exceed the benefits from working in a minimum wage job.

Some crude evidence for this is shown in Table 1. This table reports figures on in-work and out-of-work incomes for four types of households. In all cases it has been assumed that the potential earned income is the national minimum wage — \$484.40 per week before tax following the 2005 Safety Net decision — and that there is 100 per cent uptake of all benefit entitlements (it has also been assumed that none of the households are receiving rent assistance). If we focus on the first row we can see that a single person in receipt of unemployment benefits (Newstart Allowance) would be receiving just \$202 per week. If that person were able to secure a minimum wage job, their after-tax income would more than double to \$478. For this group, and indeed all persons without children, there is a sizeable economic return to employment in a minimum wage job. For people with children the story is quite different. If we take a couple with two children, out-of-work disposable income per week is calculated to be \$566 per week. If one adult in the household were then to obtain a full-time minimum wage job their income would rise by 22 per cent to \$692.12. Once we factor in the costs of working (such as transport costs), the loss of in-kind benefits associated with any loss of concession card entitlements, and the psychic disutility from working, the incentive to work, at least in a short-run static sense, may already be quite low. Holding the real wage constant while allowing benefits to increase in line with the CPI will only further reduce the incentive to work. Given the current structure of the tax transfer system, the AFPC may well find that, unless it wishes to reduce the incentive to work among low-wage workers with children, it will at some time be forced to effectively index the minimum wage to benefit levels.

It might be argued that the incentive problem could be dealt with by withdrawing benefits from any unemployed worker who rejects a job offer at the minimum wage. Indeed, some might argue that the Government is already moving down this path with tighter eligibility requirements for many pensions and benefits, and especially the Parenting Payment, from 1 July 2006. Most of these changes, however, are largely about moving certain groups on to an equal footing with Newstart recipients. Thus parents of children where the youngest has reached six years of age will now have an obligation to seek at least part-time work. An obligation to seek work, however, is very different from an obligation to accept offers of work. More generally, a 'stick' approach offers no real

solution. A reluctant worker is also likely to be a relatively unproductive worker and thus unlikely to be retained by their new employer for very long.

Table 1: Income Replacement for Minimum Wage Workers, July 2005

<i>Household type</i>	<i>Weekly out of work after tax-income (\$)</i>	<i>Weekly in-work after-tax income (\$)</i>	<i>Income replacement rate (%)</i>
Single adult	202.55	478.30	42.3
Couple with 2 children — one earner	566.40	692.10	81.8
Couple with 2 children — one and a half earners	566.40	806.40	70.0
Sole parent with 2 children	485.90	721.20	67.4

Source: Figures provided by Guyonne Kalb and derived using the Melbourne Institute Tax and Transfer Simulator.

The AFPC will not only be responsible for the federal minimum wage but also for all other wage rates specified in awards, and here they will be less constrained by the level of out-of-work benefits. Indeed, it is not implausible that the AFPC could decide to leave all award rates above the national minimum unchanged. Workers on award rates above the minimum safety net would thus need to negotiate with their employer to secure wage increases, an outcome highly consistent with the overall objectives of the Work Choices Act. It is impossible to predict the extent to which overall wage costs could be affected, but it seems inconceivable that some, if not many, of these award wage workers would not experience some decline in real wages, at least in the short-term, if the AFPC decided on this course of action. What the AFPC will do, however, is (at the time of writing) unknown.

Unfair dismissal laws

The access to the jobs market by the unemployed is also hindered by legislation that protects workers from unfair dismissal by employers. Legislation along these lines is common in most Western countries and appears to have widespread social acceptance. Nevertheless, such laws have a number of unintended consequences. Most obviously, by reducing the discretion employers have to dismiss unwanted or unproductive employees, such laws will affect recruitment and selection procedures and decisions. Supporters of employment protection will argue that this is a good thing, with employers encouraged to adopt fairer and more transparent policies for dealing with poor performers. However, for many employers, and especially small employers which lack the resources necessary to both effectively screen and select new employees and to ‘manage’ employees who fit the business poorly, both the number and type of workers hired are likely to be

affected. For example, in the presence of laws that make firing more difficult, small businesses might choose to employ greater numbers of workers who would be outside the coverage of these laws or less likely to resort to them in the event of dismissal. This might involve hiring family members or personal friends. Alternatively, it might encourage businesses to use agencies to meet their labour needs or to hire workers on a casual basis (while casual workers were covered by unfair dismissal laws, casual employees are less likely to be aware of their rights or to seek legal redress). Very differently, given the relatively greater risk from making a selection mistake, small employers will tend to be more conservative in their hiring policies and indeed many will choose not to employ any workers at all.

Many, however, would dispute the link between unfair dismissal laws and employment assumed here. Indeed, since an increase in dismissal costs can be expected to reduce both the rate of separations and new hires, it is not obvious that aggregate employment would decline. (Though it is unambiguous that both average job tenure and unemployment duration will lengthen.) Waring and de Ruyter (1999), for example, pointed to the continued rise in the small business share of employment during the 1990s following the introduction of unfair dismissal laws in the federal jurisdiction in the early 1990s as evidence that such laws have not been a barrier to employment growth. Such evidence, however, demonstrates little. Most obviously, most small businesses were covered by State laws and not the federal system, and the existence of unfair dismissal laws in most State jurisdictions dates back to the 1970s. In any case, before and after comparisons tell us nothing about the counterfactual; what we need to know is how employment would have changed in the absence of such laws.

In the absence of a natural experiment we thus have to rely on survey data collected from businesses about the impact of dismissal regulations on business costs. The most often cited example here is Harding (2002) who used results from the responses of a sample of managers at 1800 businesses with fewer than 200 employees to generate an estimate of the cost impost on the Australian economy of unfair dismissal laws. His lower bound estimate is that these laws add an amount equivalent to about 0.2 per cent of the annual Gross Domestic Product to business costs. The impact on jobs is harder to estimate, but based on an assumed elasticity of demand of 0.7 (the long-run wage elasticity of demand in the Treasury Macroeconomic Model), Harding concluded that employment levels are at least about 0.5 per cent lower than they would otherwise be.

Evidence based on essentially qualitative survey evidence, however, is far from ideal. Most obviously, this type of data is open to the criticism that given the climate and context in which the data were being collected, managers may have had a tendency to overstate the impact of unfair dismissal laws on both costs and hiring behaviour. Nevertheless, it needs to be recognized that Harding uses very conservative assumptions in calculating the employment effects. He applies his lower bound estimate of the cost impost and also adopts a conservative estimate of the elasticity of demand. Most importantly, and as made clearer in a subsequent paper (Harding, 2005), he was unable to take into account the additional costs to

the business associated with having to continue to employ workers who would otherwise have been dismissed.

More recently, Harding's findings have been challenged by other survey evidence collected by Freyens and Oslington (2005). In contrast to Harding, they administered a survey designed only to collect relevant quantitative data. Their findings, based on responses from just over 1400 small and medium enterprises, led them to conclude that any adverse employment impact from unfair dismissal laws is tiny — about 6000 jobs Australia-wide. The emphasis on only collecting directly measurable costs, however, caused them to ignore many important costs. The only costs they measure are those directly incurred by the employer when firing a worker for cause, such as the time spent writing written warnings, obtaining legal advice, gathering evidence and in the conciliation process, and the cost of any settlement payment. But as Harding (2005) has observed, this focus ignores the potentially much larger costs associated with both 'the additional management procedures necessary to reduce unfair dismissal claims' and the impact on output from retaining low productivity workers. In summary, Freyens and Oslington found a trivial employment effect precisely because the costs they measure are also trivial. The true employment impact will be much larger.

It is essentially because of this possible positive employment impact that the Federal Coalition government repeatedly sought exemptions for businesses with 20 or fewer employees from the unfair dismissal law provisions of the Act. Now that it has the mandate to affect change, however, the government has decided to extend this exemption to all businesses employing up to 100 workers. As should be clear from the arguments set out above, laws prohibiting 'harsh, unjust or unreasonable' termination are unlikely to have as much impact on large firms. They typically have the resources and personnel to both avoid recruitment and selection mistakes and to ensure termination is preceded by due process. Restrictions on hiring are only likely to have a sizeable impact on employment decisions in the very small firms. For firms that currently employ no one the direction of effect is clear — reducing employment protection costs can only cause employment to increase. The magnitude of the positive employment effect can then be expected to gradually decline with size. That said, it should be recognized that the presence of other legislation, and most notably anti-discrimination legislation, will rein in some of these effects.

Output effects

Industrial relations reform might also affect employment outcomes by raising aggregate demand. For example, if the reforms result in lower unit costs, either through lower real labour costs, high productivity, or a combination of both, competition will place downward pressures on prices, which effectively raises real disposable incomes and consumer spending. Some, and notably Peetz (2005), would challenge this. In Peetz's view all of the cost savings will end up accruing to employers as profits, which seems an extreme view given it implies the complete absence of competitive pressures in product markets. In any case, higher

profitability can promote employment expansion through increased investment, increased taxation revenue or its ameliorating on interest rates.

Very differently, demand can be stimulated through any restraining impact of the reforms on aggregate inflationary pressures. This is likely to occur through two mechanisms. First, a shift towards a more decentralised enterprise bargaining structure has the effect of reducing the rate of flow-on of wage increases from high-productivity firms and sectors to low-productivity ones. Second, any further reductions in union power will reduce the ability of unions to bid wages up above their market level. Evidence supportive of both of these hypotheses can be found in Lye and McDonald (2004; 2005). The estimates of Lye and McDonald (2005) suggest that the decline in union density since the mid-1970s has effectively reduced the 'minimum' equilibrium rate of unemployment by about three percentage points while the effect of the growth in coverage of enterprise agreements during the 1990s was to reduce it by almost one percentage point.

Under the new reforms the expectation is that both union power and influence will be further weakened and bargaining structures will become even more fragmented as increasing numbers of employers opt for individual agreements. Again, the expectation is that this will allow a more expansionary monetary policy setting and potentially higher rates of employment growth.

Agreement-making and Productivity

Another of the key claims used to justify the Work Choices reforms is that more flexible forms of agreement-making promote productivity growth. Unfortunately, this is an area that is rich in rhetoric but poor in evidence. Loundes, Tseng and Wooden (2003), for example, in their review of the evidence on the link between enterprise bargaining and productivity, concluded that the research needed to either confirm or reject the hypothesis that enterprise bargaining has had a beneficial effect on productivity has not been conducted. While a careful reading of Loundes, Tseng and Wooden (2003) might suggest, on the balance of the evidence reviewed, that the hypothesis is supported, the authors make it very clear that such a strong conclusion would not be warranted. The macroeconomic evidence for example, while consistent with the hypothesis, does not establish causation; case-study research, at best, only highlights the potential for enterprise bargaining to facilitate improved productivity; and the limited micro-econometric studies that have been undertaken have all used data that invariably have proved not well suited to the task. About the only thing we can be certain of is that many managers believe that enterprise agreements (and individual agreements) have been good for workplace performance, which of course is very different from establishing that positive performance consequences actually resulted.

More recently Access Economics (see Ryan, 2005) reported evidence of an inverse relationship across industries between productivity growth and award reliance, something that also featured prominently in the government's Regulation Impact Statement accompanying the Work Choices Bill. But as Peetz (2005) has correctly observed, correlation does not establish causation. Indeed, causation is

likely to be stronger in the other direction. Productivity growth makes higher rates of wage growth possible which in turn will require over-award pay outcomes.

Under Work Choices the emphasis shifts from enterprise-based bargaining structures to individual-based bargaining structures (and in particular, AWAs), and on this topic — the link between individual agreements and productivity — the research base is even weaker. Nevertheless, this has not prevented commentators on both sides of the debate from making strong claims about the likely links. The government position is well known and is best summarized in its 2004 election policy, 'Flexibility and Productivity in the Workplace: The Key to Jobs'. There it is claimed that AWAs 'raise productivity, efficiency and allow for greater flexibility'. Similar sentiments have been echoed by the Business Council of Australia (2005:12) and in media releases from other employer bodies.

Many industrial relations academics are highly critical of such claims, arguing that the government and its supporters have failed to produce any convincing evidence to support its position. Peetz (2005), however, goes a lot further than simply attacking the evidence used by the government and its supporters, arguing that the 'available evidence indicates that there is *no* positive relationship between individual contracting and productivity' (p. 51) (emphasis added). The main pieces of evidence that Peetz uses to support this contention are: (i) the much weaker labour productivity growth figures in New Zealand compared with Australia following the introduction of individual contracts in New Zealand in 1991; and (ii) the relatively weak productivity growth in Australia during the most recent productivity cycle (since about 2000). Neither of these pieces of evidence, however, proves much.

It is true that growth in output per worker hour was relatively slow in New Zealand during the early 1990s, but labour productivity on its own is not a good measure of the productivity of the economy. As argued elsewhere (Wooden, 2000:156-158), New Zealand experienced a marked surge in employment following the introduction of the Employment Contracts Act, presumably because of a reduction in the rate of growth of labour costs. Since inexperienced workers are typically less productive than more experienced workers, this reduces the measured average productivity of the workforce. Aggregate production, however, is likely to have increased given that more people are now in employment. Data for New Zealand compiled by Diewert and Lawrence (1999) support this interpretation. While aggregate labour productivity did not rise after 1993, this was entirely due to the expansion in the labour stock relative to capital. For a given capital-labour ratio, the New Zealand economy was in fact more productive in 1998 than in 1992.

Peetz then moves on to Australian productivity data, effectively arguing that the slowdown in productivity growth since the introduction of the *Workplace Relations Act 1996* implies that individual agreements have not been beneficial for productivity. He may well be right, but might this not be because there has been relatively little uptake of AWAs? ABS data, for example, indicate that at May 2004 registered federal individual agreements (that is, AWAs) covered just 2.4 per cent of Australian employees (ABS, 2005). Moreover, a good proportion of those

employees were not part of the 'market' sector; that is, they were working in industries where output cannot be meaningfully measured and hence not included in national productivity calculations. It is thus difficult to see how AWAs could be responsible for any significant movement in aggregate productivity given these very low rates of coverage.

A very different type of critique is provided by those who have analysed the content of AWAs (for example, Roan, Bramble and Lafferty, 2001; Mitchell and Fetter, 2003). Mitchell and Fetter (2003), for example, examined a sample of 500 AWAs finding that about half were extremely limited in their scope, making only one or two changes to the relevant award, while of the remainder the large majority were overwhelmingly concerned with pay and temporal flexibility. On the basis of this they drew the conclusion that the majority of AWAs have been focused on cost reduction rather than productivity enhancement. Gollan and Hamberger (2003), on the other hand, have argued that such evidence is largely irrelevant. They noted that AWAs are only intended to deal with pay and conditions of employment and that examining the text of agreements in an attempt to identify the presence of practices designed to promote 'high performance' workplaces is misplaced.

So how then do AWAs impact on productivity? One route is via the implementation of payment arrangements that more closely tie rewards to performance. Standard economic theory suggests that such arrangements will raise productivity by inducing greater effort and attracting more able workers (for example, Lazear 1996), and these theories have at least some empirical support — performance-related pay is generally found to be associated with higher earnings (for example, Brown 1992, Booth and Frank 1999).

Very differently, Gollan and Hamberger (2003) suggest that the route to better performance is via the agreement-making process itself; that is, the direct negotiation of employment and conditions fosters a climate of common purpose and trust that is conducive to better performance. Gollan and Hamberger support their argument with survey evidence from a sample of around 1000 AWA employees and a similar sized sample of non-AWA employees, which revealed that the proportion of AWA employees who trust management (43 per cent) was considerably higher than the proportion among the non-AWA employees (34 per cent). The AWA employees also appeared to be more satisfied with the amount of control or influence they had over their work, the level of communication, work-related training and recognition received. Such evidence, however, is still far from conclusive. At a minimum, there is a need to control for differences between the two groups. Further, there is the issue of causation. According to Wooden (1999) trust is a factor that promotes coverage by individual agreements. In other words, a high trust environment may be a precondition for acceptance of individual arrangements by workers rather than a result of the agreement-making process. Indeed, it is possible that individual agreements can be counter-productive. This might be expected if they promote competitive behaviour within workplaces and foster non-cooperative relationships, and if they are forced upon employees, as is often claimed. Such situations would tend to promote grudging performance, or

what Williamson (1975) refers to as ‘perfunctory’ compliance, rather than the higher levels of performance associated with ‘consummate cooperation’ that is characteristic of more trusting work environments.

On balance, therefore, we are again drawn to the conclusion that we do not know whether individual agreements can improve productivity — the research needed to establish this has again not been conducted. There are, however good reasons to be wary of claims that individual agreements are a panacea for poor performance.

Conclusions

Industrial relations arrangements in Australia at the start of the 21st century are very different from what prevailed just two to three decades earlier, with the fundamental difference being that employers and workers are generally expected to determine their own employment arrangements with far less involvement from third parties. Work Choices moves us further down the road towards self-determination in the workplace. Arbitration is effectively dead; awards have been rendered largely irrelevant for all but the very low paid; the role of the AIRC has been reduced to that of an industrial policeman (but who can also offer voluntary conciliation services on the side); and trade unions will find it more difficult to service their existing members, recruit new members and organize (lawful) industrial action. This legislation also clearly shifts the balance of the power in the employment relationship more towards the employer. This will be most obvious in businesses with 100 employees or less, where employers will have the right to dismiss workers almost at will. It is also reflected in the way agreements will operate. Most importantly, if offered an AWA, the only real alternative for many employees will be to quit.

Nevertheless, such a shift in the balance of power in the bargaining relationship may be a reasonable price to pay if there is a return in the form of increased employment and higher rates of productivity, as claimed by the government and most employer bodies. The tentative conclusion from this review is that jobs growth is not an unreasonable expectation, though many supporters may well be disappointed by the size of the gains. Removing wage setting powers from the AIRC to a new Australian Fair Pay Commission, for example, is unlikely to make much difference, especially to those at the bottom of the wages distribution. Ultimately, creating more competitive wage structures for low-wage workers without damaging the incentive to work requires a fusion of welfare, tax and labour market policies. Simply changing the way minimum and award wages are set will, on their own, make little difference. Exemptions from unfair dismissal laws, on the other hand, should act as a spur to increased rates of hiring, though net employment gains are likely to be concentrated among very small businesses. In the longer term, jobs growth may also be stimulated if the reforms lead to lower prices, thus stimulating consumer demand, or enable the maintenance of a more expansionary monetary policy.

There are thus good reasons to believe that positive employment consequences are at least possible. The story with respect to productivity is far less convincing, especially given the primacy Work Choices assigns to individual agreement-making. Indeed, in the short-run it can be expected that output per worker hour will decline. This, however, will simply be a result of the expected increase in low-wage employment, and not because of any decline in the productivity of the existing workforce. The big question is whether the expected increase in use of individual agreements (both formal and informal) will be good for productivity. A priori the effects could work in either direction, and existing research provides few clues as to what the likely impact would be. Ultimately, I suspect that the impacts will depend on the way such agreements are introduced and the environment in which they are introduced. They are much more likely to be successful when introduced in cooperation with workers and in environments where there is already a high level of trust between managers and workers. On the other hand, where such agreements are forced upon workers the most likely result is higher rates of labour turnover, declining morale and grudging performance levels at best. Of course, simple economics tells us that the profit-maximising firm would not pursue this route if this were the likely outcome, but we should not under-estimate the capacity of individual managers to choose the 'easy route'. Many managers will undoubtedly be attracted to AWAs if it means not having to deal with unions and not having to worry about employee relations.

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Policies and Politics: Challenges and Opportunities for Economists

David Pannell

This paper addresses the challenges and opportunities facing economists who wish to be influential in the formation of policy. There are plenty of both. While members of other disciplines tend to view economics as being far too influential on government policy, economists are often frustrated at the blatant and pervasive policy inefficiencies that persist despite their best efforts. The aim is to help economists consider their role in the policy process, in terms of its appropriateness and effectiveness. The focus is on micro- rather than macro-economic policy. The approach is to bring together a range of theory, empirical research and practical experience to provide practical insights and advice.

The next section outlines the scope of politics as considered here, and describes the key groups of political players. A range of rationales for or against economist involvement in the policy process, including arguments around market failure, government failure and economist failure is then examined. There follows a brief overview of a range of very different theories about how policy is developed and influenced, with most attention paid to the favourite of economists: public choice theory. This flows into discussions of the specific challenges and opportunities facing policy-relevant economists, including lessons that have been learnt by economists from practical experience in the policy process. Advice about influencing policy is presented based on a survey of economists and others directly involved in policy development. Most of the material is relevant to economists (especially micro) working in any problem area, but examples are drawn mainly from the areas of agriculture and natural resource management.

Politics

Politics is taken to be the full range of social forces influencing government policy. Policy means the government's laws, regulations, financial programs and their interpretation, administration and supporting structures.

The players in politics may be categorised into at least five groups: the voting public, politicians and their parties, bureaucracies, interest groups and the media. Ingredients of politics in a democracy include the values and attitudes of the voting community, the quest for power and survival by politicians and their parties, the ideologies and values of those political parties, the media as communicator and watchdog, the pursuit of resources, influence and effectiveness by the public service, and the attempts of interest groups to have their interests

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met. Among the players there is a mixture of people seeking advantage for themselves or some group, and people seeking to do ‘the right thing’ for the whole community. The outcome and the instrument of politics is government policy.

Ministers play a special role in the policy process. They have more individual power than any other player, although even for them, the power to make major changes to program design comes along only occasionally, and is constrained by political and budgetary considerations. A reality of politics is that most ministers are highly concerned about maintaining a positive public profile for themselves in the media and amongst the community. There are exceptions, but most ministers have only a superficial knowledge of the many issues about which they have to make decisions. Most rely heavily on their advisors for background, advice and speech preparation.

Bureaucracies vary widely in their powers, their regional scopes and their characters. Amongst government agencies, a core concern is keeping their ministers happy. This includes keeping the agency out of trouble in the media, delivering successfully on any pet projects of the minister or of the ruling party, and responding rapidly to any *ad hoc* requests. Beyond this, agencies are variously concerned with implementing policies, programs and legislation, pursuing the best interests of the public and capturing resources, powers and responsibilities. Sometimes inter-agency rivalry is an influence on agency behaviour. For example, such rivalries sometimes arise between agencies with a focus on agriculture and agencies with a focus on the environment.

Godden (1997) described the interaction of these players in what he calls ‘political markets’ where the currency is not dollars, but deals, votes and political advantage, or, to use Becker’s (1983) term, political favours. The players may have widely differing perspectives and be in pursuit of widely differing policy outcomes. As outlined later, there is no single dominant theory of how the players interact in political markets to produce policies (Sabatier, 1999; Birkland, 2001).

Rationales for Intervention

The literature provides several arguments for or against economist intervention to attempt to influence governments, most prominently the ideas of market failure and government failure. Also broached is the possibility of economist failure.

Market failure

If markets fail, in the sense that they fall short of the performance of perfect markets, government intervention in the markets may potentially improve their efficiency. Market failure occurs when free markets, operating without any government intervention, fail to deliver an efficient allocation of resources. Failure might involve a departure from productive efficiency or from allocative efficiency.

Commonly recognised potential causes of market failure include externalities, non-rival goods, non-price-excludable goods, monopoly, and information failures.

Micro-economists routinely invoke the concept of market failure and attempt to use it to influence government action so that it focuses on cases where it will more likely contribute to increased aggregate social welfare.

Many of us take the concept of market failure for granted, but it is worth noting that it is, in fact, rather problematic. The problems include the following.

There has been criticism of the very concept of market failure on the basis that real markets *always* fail to measure up to the idealised markets of perfect competition (Pasour, 1993). This means that 'market failure' alone provides us with no useful criterion for assessing options for government intervention.

Furthermore, the standard concept of market failure takes no account of the transaction costs that would be borne in any attempted intervention. Transaction costs of government involvement are often large. For example, implementing a well-designed regulation or economic instrument may involve costs relating to: collection and analysis of data to inform the specific design of the policy mechanism; public communication or education programs to alert people to the existence of the new policy; administration; monitoring compliance with the policy; prosecuting violations; and evaluating overall performance of the policy. If transaction costs are recognised, it cannot be proven that government action is warranted simply because a potential cause of market failure exists (Dahlman, 1979). 'When transaction costs are taken into account, economic analysis has yet to develop a reliable system for identifying ... examples of market failure that have relevance for public policy' (Pasour, 1993:2).

Perhaps we need to identify market failures that are sufficiently severe to outweigh transaction costs of trying to overcome them. Some applied economists in policy agencies have an awareness of this problem, and adjust their evaluation criteria subjectively by requiring interventions to generate larger net benefits in order that they might outweigh transaction costs. This requires us to go beyond theoretical justifications and into the realm of quantitative estimation of benefits and costs. 'Sufficiently severe' would imply that the benefits of intervening exceed the total costs.

It is suggested that the overall implication for economists is to exercise caution in their use of the market failure concept to justify government intervention. The mere existence of externalities, public goods or information failures is not sufficient to be sure that there is a market failure, in the sense that government intervention would be welfare increasing.

Government failure

The theory of market failure is primarily normative; it attempts to identify situations where governments *should* behave in certain ways. The concept of government failure, on the other hand, is mainly positive; it reflects limitations in how governments *do* actually behave. There is plenty of evidence that, even with the best of intentions, governments can make things worse rather than better.

Public choice theory (Mueller, 1997; 2003) has highlighted the inevitability of government failure (as well as that the people involved do not necessarily have

the best of intentions). It has elucidated problems arising from the incentives that political players face, from information failures of various types, and from opportunities for rent seeking.

The implication for economists interested in influencing policy development is rather different to that from market failure: 'Economics can play an important role in disabusing policy makers of the idea that there is a feasible substitute for decentralised market prices as a means of discovering, coordinating and communicating information throughout the economic system' (Pasour, 1993:7). It does not imply that government intervention is never warranted, but that advocates for intervention need to be conscious of what can go wrong.

Hogwood and Peters (1985) provide an exhaustive catalogue of the many and varied ways in which governments may fail, including:

- Conflicting objectives; vague objectives; impossible objectives
- Organisations seek their own interest, pursuing power and resources; organisations attempt to minimise change; organisation captured by a group of stakeholders
- Passive approach to information; failure to evaluate; failure to communicate information to decision makers; use of out of date information; poor targeting of benefits
- Lack of openness with the public; belief in silver bullets; belief in disciplinary superiority
- Excessive expenditure; expenditure on projects with negative Net Present Values; having more resources than can be spent well
- Earmarking (hypothecation) of funds; under-resourced programs; corruption

It is a rather salutary list of problems that helps reveal much about the nature of many government bureaucracies. Nevertheless, we should not conclude that there is no hope of influencing government programs for the better. For one thing, where current programs fall far short, modest changes may generate substantial benefits to society, even if are not close to an ideal policy. For another, there are plenty of examples where economists have palpably made a positive difference in the past. On the other hand, we perhaps need to be aware of the risk that economists making a difference may not always be a good thing (see below).

Economist failure

It is not difficult to identify weaknesses in economic theories or their specific applications (for example, Fullbrook, 2004). Of course, economics is not the only discipline, at times, to make counterproductive charges into the policy realm. But the focus here is on a few points that relate directly to the economist's role in influencing policy.

A common criticism is that some economists tend to neglect other disciplines that would better inform their analyses and complement their perspectives. Nobel Prize winner Friedrich Hayek (1991:42) has made this point most forcefully:

While you may be a very useful member of society if you are a competent chemist or biologist, but know nothing else ... if you know only economics and nothing else, you will be a bane to mankind, good, perhaps, for writing articles for other economists to read, but for nothing else.

Perhaps related to this is the criticism that the assumptions used in economic models are often unrealistic and simplistic. To some extent this reflects a strong tendency in academic economics to emphasise theoretical work ahead of empirical work, even where there is limited empirical underpinning for the theories. Mueller (1997) noted that almost all of the early classics in the public choice literature were theoretical contributions. Its leading lights mostly avoided testing their ideas in empirical research (Romer, 1988). Although empirical work is increasingly evident, the subject is still dominated by the overly-theoretical approach common to much of academic economics. 'Public choice scholars have sometimes been too quick to adopt simple (naïve) behavioural assumptions and too slow to abandon them when confronted with contradictory evidence, tendencies that carry over from economics' (Mueller, 1997:15).

It has been observed that economists sometimes confuse themselves and others about policy-relevant aspects of economic theory. The earlier discussion of inappropriate use of the concept of market failure is one example.

Another example is that economists sometimes get confused about the relationship between externalities and market failure. Just because externalities exist, it does not necessarily follow that there is any scope for government intervention to increase welfare, even if there are no transaction costs from the intervention. 'If with government intervention, the losses exceed the gains, the spillovers should remain' (Pasour, 1993:3). Thus a net-benefit test is a crucial part of assessing whether a potential market failure is an actual market failure (in the sense that intervention could increase welfare); theory is not sufficient. My work on dryland salinity in Australia has highlighted cases where externalities are not associated with market failure (Pannell, McFarlane and Ferdowsian, 2001). It is true that the actions of one farmer (for example, land clearing) can often cause external costs for another farmer (for example, a larger area of salt-affected land). However, it is frequently the case that the cost to the first farmer of mitigating that salinity exceeds the external benefits of doing so, and hence, in these cases, there is no market failure; government intervention could not increase aggregate welfare.

A third example is the common failure to distinguish clearly between public goods and public benefits. The argument for providing some public goods is relatively clear in theory, although difficult in practice, as we have noted. In the case of public benefits, the argument one hears is that governments should focus on funding works that generate public benefits, not private benefits. Some people seem to think that this arises from the theory of public goods. In fact, it comes from the pragmatic observation that if the private benefits of a good are

sufficiently positive, the good will be purchased without government funding, so public funding should be saved for other uses.

These three examples point to the need for economists to get their story straight, rather than for them to stay out of the policy debate. However, there is a group of economists that does argue against economist input to the political process, on the grounds that the process is already efficient. The Chicago school of political economy, established by George Stigler (1988), with Wittman (1995) as a prominent disciple, argues in classic economist style that the policy programs that survive are better than the alternatives in having lower deadweight losses. They propose that policy choices already take account of whatever established knowledge that economists possess, with the implication that any further influence by economists can only make matters worse (Pasour, 1993).

Should economists get involved?

In summary, the three subsections above have the following implications for economists. The concept of market failure *per se* provides relatively little guidance as to whether and when economists should argue for policy intervention. We need to get quantitative about whether the benefits of intervention will likely exceed the costs.

The prominence and great scope for government failure means that achieving substantial positive change to policy is likely to be difficult. On the other hand, given the poor design and implementation of many policies, there is likely to be great scope for positive change resulting from even a modest influence by economists.

The risk of economist failure (in the sense of error or confusion) highlights the need for care rather than silence in the policy realm. The stronger implications of the Chicago School are, at least, that we should work on our humility and recognise that factors other than the economic efficiency of markets are at play, or in the extreme, that economists should not seek to influence policy at all.

One's position on these issues is a matter of personal judgement, and it may vary depending on the policy issue at hand. The author's view in the case of salinity policy is that the scope for improvement is so great that it is worth confronting the inevitable difficulties in overcoming government failure. Based on his own close engagement with the policy process, the author finds the arguments of the Chicago School to be highly simplistic, unconvincing, and savouring of economic fundamentalism. In the author's experience, the reality is that competition cannot drive out inefficiencies in political markets because the markets are monopolistic, and information failures are rampant (for example, see Boudreaux, 1996). Overall, the author's position is that economists have the potential to contribute greatly to the improvement of public policy, provided they understand the policy process and how to engage with it. These are the subjects of the remainder of this article.

Understanding Politics and Policy Formation

Effective engagement with the policy process requires some understanding of that process. Generally the available theories of policy formation provide relatively generic understanding at an aggregate level. This needs to be supplemented by more specific and detailed knowledge of the behaviour and perspectives of policy players, specific options for policy mechanisms, and of the historical context for specific policies. A brief description and commentary on the high-level theories are provided in this section. A later section on ‘opportunities’, presents a selection of specific insights and advice from people involved in the policy process.

Table 1: Selected Theories and Approaches for Understanding Politics and Policy Formation

<i>Theory/approach</i>	<i>Characteristics</i>
‘Demographic’ approach	Hypothesis: Influences from the environment explain policy choices. Approach based on regression of a dependent variable representing policy choices against independent variables such as demographic variables, affluence, social structures, trade unions, and political parties. Problem: Lacks theoretical structure. Limited insight into future choices.
Incrementalism	Hypothesis: Current policies explained as incremental changes from past policies. Previous decisions are crucial determinants of current policies. Problem: Cannot explain why policies change. Less relevant where decision processes and political structures are unstable over time.
Rational decision making	Hypothesis: Policies chosen to best achieve stated goals, based on perfect knowledge. Problem: Unrealistic. In reality there are numerous sources of uncertainty in cause and effect, and goals are ambiguous.
‘Garbage-can’ model	Hypothesis: Policy choice is irrational. Sought values are ambiguous, cause and effect are uncertain, choices reflect political symbolism. Problem: Over-emphasises irrationality. No clear predictions.
Public choice theory	Hypothesis: Agents involved in politics and policy formation act rationally in pursuit of their self interest. Problem: Over-emphasises the supply-side of political markets. Neglects other motivations.
Descriptive approach	Hypothesis: No overarching hypothesis. Consists of presentation of specific insights and experiences from policy formation process. Problem: Non-theoretical.

Source: Based on Lane (1993)

As noted earlier, numerous theories are offered to explain government policy formation patterns. Table 1 presents a selection. Each of these theories or approaches is insufficient in itself. The reality is that policy formation reflects all

of these theories to some extent. Policy choices are, at times, influenced by: demographic changes (for example, the aging population has influenced policies about retirement savings in Australia); previous policies (for example, the Landcare policy in Australia, although now out of favour, can be seen to have influenced the shape of its successor, the Natural Heritage Trust); perceptions about the public interest (for example, education and health policies); and the private interests of various policy players (for example, assistance to the sugar industry). It is hard to imagine that a useful comprehensive model will ever be developed of such a messy, complex and heterogeneous system. It is suggested that none of the theories should be taken too seriously, but there should be an attempt to learn from the key insights of each.

Public choice theory is worthy of further comment here, as it is the approach most commonly used by economists. Its distinguishing characteristic is that it seeks to understand politics via application of the behavioural assumption that the individuals involved in all parts of the political system seek to advance their rational self interest.

Clearly this is a considerable simplification. The observation that people vote in non-compulsory elections shows that more than rational self interest is involved. (There is probably more chance of being killed in a traffic accident on the way to a polling booth than of one's vote being decisive in determining the result.) Nevertheless, the assumption has been found to be a fruitful basis for studying politics.

Growing out of classic works, such as those by Arrow (1951), Downs (1957), Buchanan (1949), Buchanan and Tullock (1962) and Olson (1965), public choice theory has provided insight into a remarkable array of issues (Mueller, 2003). For example, there are studies of the economic basis for collective choice, the distinction between efficiency and redistribution as roles for government, voting behaviour, the economics of clubs, the behaviours of two-party and multi-party systems, social welfare functions, national constitutions, and taxation.

Much of public choice theory deals with questions that are not closely related to the main question addressed in this paper (how to be influential in the formation of policy). More relevant to our interests here are studies that address rent seeking, public bureaucracies, the size of government, interest groups, and the making of political deals. The key insights from public choice theory for an aspiring policy-relevant economist probably include:

- the insight that is built into the theory by assumption: that policy players are often self interested;
- that different policy players have different objectives (because their interests are different), and are not necessarily pulling together towards the goal of advancing the public interest;
- the need to be alert to wasteful transaction costs associated with rent seeking, and government processes generally;

- that rational bureaucratic behaviour can promote inefficiency, excessive growth, capture by interest groups, weak accountability, and related problems that undermine effective government; and
- that understanding the policy approach benefits from a multidisciplinary approach.

Fundamentally, however, public choice theory is limited in its utility for our purposes because it overlooks, and perhaps actively discounts, one of the most powerful levers available to economists who wish to influence policy: the moral high ground. It will be argued that economists can sometimes gain status and influence in the policy process by explicitly seeking to identify and advance the public interest, at least in the sense of increasing total net benefits.

Challenges for Economists

There are numerous challenges for economists in the policy sphere. Politics is messy, complex, and often rather depressing for those who seek advancement of the public interest. 'Most of the most important results of the early public choice literature conveyed a rather negative message about the potential of democracy and about its effects' (Mueller, 1997:7). Some of the more common challenges that one faces when attempting to influence the policy process to achieve efficient outcomes are outlined here.

There are often conflicts between short-term political objectives and long-term needs for efficient policies. 'Good advice on economic policy is often about convincing others that short-term responses are inappropriate' (survey respondent Alistair Watson, quoted by Pannell, 2004).

As an outside expert, it can be difficult to establish credibility with policy makers, especially if you are not based in their local region. Feldman, Nadash and Gursen (2001:313) found that state-level 'policy makers seek and prefer to use information obtained directly from trusted sources, preferably from sources with immediate knowledge of their state's circumstances, priorities and needs.' The tendency to rely on local, trusted information sources means that the selection of information to use in policy formation is partial and somewhat hit-and-miss. Indeed, the 'experts' who are listened to may not contribute to a more efficient policy. They may not even be experts in the relevant issues: 'Much of the problem with bad policy comes from smart, articulate people who are operating out of their skill zone' (survey respondent Gary Stoneham, quoted by Pannell, 2004).

Politicians like a crisis. It attracts the attention of the community, and offers opportunities for heroic and helpful deeds. The community also seems to like a crisis, and responds to catastrophic predictions (Lomborg, 2001), including, recently, the Y2K bug and global climate change. There is a strong temptation for political advocates to exaggerate the severity of the problems they wish to have addressed, contributing misinformation to the policy decision process. This may

prompt urgent and short-term responses, when the real need is for careful consideration and analysis before policy strategies are selected.

There is often a mismatch between the complexity of policy problems and the simplicity of policy responses. For some problems, in my experience particularly environmental problems, there can be a great diversity of technical, economic and social issues that need to be understood, some of which are subtle, counter-intuitive and complex. This makes it difficult even to communicate succinctly to senior policy players who are not already well informed about the details of the problem. Policy proposals need to be simple and bland enough to achieve agreement, and this can tend to drive decision making to a lowest common denominator (Eckersley, 2003). Hamilton (2003:129) argues that 'the political process ... remains too immature to deal properly with detailed and reasoned analysis of issues'.

For some issues, an efficient policy would involve different policy mechanisms in different circumstances. For example, in the case of dryland salinity, Ridley and Pannell (2005) concluded that the most effective and efficient policy response depends on the type of asset that is under threat from salinity (for example, agricultural land, water resources, infrastructure, natural vegetation) and on local conditions (for example, the responsiveness of groundwater to changing land use; the profitability of the available land-use options). They identified that in different cases the best policy response could be: communication/education; regulation; economic instruments; research and development; direct funding of engineering works on public lands; or doing nothing. However, the policy process prefers a simpler policy structure, preferably with a uniformly applied policy mechanism. In some cases this might be justified on the basis of lower transaction costs, but in others the result is likely to be a substantial opportunity cost to society.

Complexity and diversity can mean that there is no consistent message going to policy makers. For example, few people are well informed about the full range of background information relevant to salinity in Australia (which include hydrogeology, economics, biology, engineering options, water resources, the context of commercial agriculture, social aspects, biodiversity, and politics), and many contributions to the public debate are narrowly conceived and poorly justified (Pannell, 2005). Even among relatively well-informed commentators, the nature of the required policy response is disputed. For example, Beresford *et al* (2001) characterise the problem as lack of sufficient public resources, whereas Pannell (2001) judges that total funding is appropriate, but poorly allocated. Some expert commentators focus on the need for hydrological data for targeting investments, some on the development of new management options, some on the use of engineering options, some on the importance of communication and education. One has sympathy for policy makers trying to decide whom to believe.

Politicians like everyone to feel that they are winners, or failing that, politicians like to closely control who are the winners and losers. This can result in a tendency for program funds to be shared widely among all members of the relevant section of the community, when an efficient approach would involve

targeting of funds to priority cases. One hears the concept of ‘fairness’ invoked in discussions about this. It appears that political fairness tends to focus on one dimension of fairness: the expectation of current beneficiaries. Whether it is fair to taxpayers to spend tax dollars in programs that will not be very effective in achieving their objectives is less often considered.

The very existence of a system of funding creates considerable political pressure for its continuation. Understandably, those involved in spending the funds actively participate in the political process to endeavour to preserve the system. Even if new information about the policy issue indicates that a change is needed, it may be politically difficult to achieve. For example, the National Landcare Program in Australia created many new positions for Landcare facilitators. The facilitators were imbued with a particular philosophy of working with farmer groups to address environmental issues on farms. Over time, it has become clear that this approach and philosophy are less effective in preventing land degradation than was originally expected. Partly in response to this, the Program is undergoing change. However, changing the system is made difficult by the existence of many hundreds of facilitators who are philosophically connected to and financially dependent on the existing system, connected within bureaucratic and political networks, and able to mobilise the more committed farmers from their groups to fight in defence of the status quo.

Opportunities for Economists

Notwithstanding the deep-seated problems with many public policies, and the challenges inherent in the policy process, it is believed that economists can, at least sometimes, play a valuable role in improving policies. Of course, it is not easy. Merely publishing the results of economic research, no matter how important its findings are, will not be sufficient. Rather, success requires a major commitment to engage with the policy process, efforts to understand the process and the players in some detail, and attention to strategies for effective communication. It is necessary to become an active advocate for your position.

The options for engagement for economists outside the public sector include:

- through politicians and political parties (internally or externally)
- through contributions to the public debate (for example, economists with high media profiles include John Quiggin in Australia and Paul Krugman in the USA)
- through bureaucracies (internally and externally)

Government-employed economists have a narrower range of options, but might possibly have easier access to some important policy players. The main reason for at least some degree of optimism is that, in my experience, the idea of the ‘public interest’ does have a genuine currency in policy circles, and advocates for the public interest do have a legitimate and respected role in policy debates. The public interest can clearly be thwarted in a large variety of ways, but it cannot

be made to seem irrelevant. Some people involved in the policy process unashamedly pursue sectoral interests, but others do attempt to pay attention to the public interest, and may cultivate input from those with relevant information about it. There are enough people involved who are genuinely sympathetic to the public interest for it to be relevant, and those who are not find it difficult to resist openly, although you can be sure that they do so behind the scenes.

In 2002, a small survey of experienced policy players in Australia was conducted to gain insight into how economists can influence the policy process (for details, see Pannell, 2004). Respondents provided a wealth of practical advice and insights into the policy process, some of which are summarised here. Writing on related issues Harries (2002) also provided personal views which support some of the points below.

- Understand the policy maker's perspective. What are their objectives and constraints (for example, political, resource)? Assumed generic objectives, such as 'pursuit of self interest', are not sufficient. What are their current perceptions of the issue? Probably one needs to work on incremental changes rather than expecting people to suddenly abandon their current perceptions.
- Forget about trying to convert any adversary you have in the policy debate. The probability of success is too low to be worth the effort.
- Address the case, not your opponent's motives. Independent observers of the debate want convincing about the substantive issues.
- Give the advice in a problem-solving manner. Don't just point out current problems.
- Get in early if possible. Once policy positions are established, they are more difficult to change (as in the Incrementalism Theory; see Table 1).
- Be persistent and patient. Making major changes to policies is likely to take years or even decades.
- Network and build support. Time-consuming efforts to communicate frequently and widely can help to build support for change among policy makers, interest groups and interested members of the wider community. 'Preaching to the converted, far from being a superfluous activity, is vital. Preachers do it every Sunday.' (Harries, 2002).
- Understand the policy process, including the relevant existing institutions. There is often a mismatch between what information policy makers say they need and what researchers provide.
- Develop a deep and broad knowledge of technical aspects of the issue. 'Make sure that you know several times more about a topic than you can conceivably use or show. This is important, for one thing, because you will not know in advance what precisely you will have to use on any given occasion. Even more important, the fact that you have much in reserve (which will usually become evident through an accumulation of small touches) will give a resonance and authority to what you do use.' Harries (2002). This is a particularly important point, with strong implications for the way that economists approach their analysis and communication.

- Be clear and brief. Avoid jargon and technical issues.
- Quantify the impacts of options, rather than relying on abstract argument. Basic quantitative data or analytical results can be highly influential on policy makers, even without the analyst adopting an explicit policy position.
- Also include qualitative information. Anecdotes or information about attitudes can reinforce quantitative information.
- Relate your recommendation to Government's stated policy objectives. Try to identify hooks within the current policy to argue that your proposed changes are consistent with the existing aims (Incrementalism again).
- Pay attention to transaction costs. Proposals that are complex or expensive to implement will be resisted.

Most of this advice deals with the phase beyond the conduct of technical research. Much of it relates to communicating and maintaining relationships with policy players. One of those players is the relevant bureaucracy. Bureaucracies play a key role in the policy process, particularly in the detailed design and implementation of policy programs. Often, the devil is in the detail of policy design, over which bureaucracies sometimes have a high degree of control. The degree of their influence depends on the issue, the interests of their minister, and their skill in influencing the policy process. Each has its own character, but some characteristics observed in some specific bureaucracies are as follows:

- A dislike of criticism. They may interpret it as a lack of understanding of the issues on the part of the critic.
- A desire to be acknowledged for effort and perceived success.
- A tendency to focus primarily on currently topical problems, and to neglect even serious issues surrounding programs not currently high on the political agenda, or not at a stage in the policy cycle where they need attention.
- A preference for advice that is very brief and highly integrated.
- A tendency to pay most attention to expenditure, process and activity, less attention to the production of outputs, and even less to achieving outcomes.
- Some scepticism about the motives of outsiders who offer advice, especially if a potential vested interest can be identified.
- Limited technical and socio-economic expertise in relevant subject matter, but no serious concern about this. There is an attitude that bureaucrats should be able to move between widely differing subject areas, without adequately recognising the importance of having high levels of subject expertise if outcomes are to be achieved (perhaps reflecting complacency about achieving outcomes).
- Awareness of ministerial expectations/preferences and of the need to protect the minister from criticism or embarrassment.

Some policy theories discussed earlier are based on specific assumptions about whether benefits and costs are borne by few or many. For example, Becker

(1983), in developing his theory of interest groups, assumes that costs are borne by many, and benefits captured by a few. In fact, among the diverse types of policies that one observes, it is possible to find examples with any of the four possible combinations of winners and losers, few and many. In the past, many agricultural policy measures fell in the benefits-for-a-few/costs-for-many category (for example, marketing boards, two-price schemes, import quotas or tariffs, production quotas, production subsidies). Recently, there has been increasing attention to agricultural policies which provide 'benefits-for-many', particularly policies intended to enhance environmental values associated with agriculture. In some cases costs are borne by a few (for example, regulations on farming practices to protect the environment, where demand curves are highly elastic), but more commonly we see costs for many (for example, public payments to farmers for so-called environmental services).

This shift in emphasis has implications for the types of issues and concerns to be addressed by aspiring policy-relevant economists. Policies in the benefits-for-a-few/costs-for-many category are perhaps more difficult to influence, since they involve bestowal of political favours directly on an identifiable group. In Australia and New Zealand, arguments about dead-weight losses from these policies fell largely on deaf ears for decades until the entire political landscape changed in the early 1980s towards a more market-oriented ideology. Even then, the ideological shift was not sufficient at the time to change the shape of agricultural policy substantially in Europe and the USA, despite the key roles of Margaret Thatcher and Ronald Reagan in changing the political ideology.

Subsequently, throughout the developed world, agricultural policies have tended to shift to the many/many category. The suspicion is that policies in this quadrant may be fundamentally more susceptible to influence by economists, since they are at least partly intended to generate public benefits. Economist input ought to be welcomed if opportunities for improving the efficiency of delivering those benefits to the broader community can be identified.

Currently, universities and professional societies offer little advice, support or training to economists on practical aspects of the policy formation process. There are opportunities to address this gap, and there may be substantial benefits from doing so.

Conclusion

A decision to adopt an ambition to influence an area of policy should not be taken lightly. The personal costs can be substantial, in terms of time, stress and frustration. As we have seen, the challenges are numerous and great but, on the other hand, the rewards of satisfaction can also be large. Economists have a particular capacity to analyse the public interest in a broad way, and this capacity is appreciated by many players in the policy process. It is this that gives economists the best chance to influence policy.

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Economics of Plant Disease Outbreaks

Khorshed Alam and John Rolfe

Increasing trade liberalisation, globalisation and international transportation of people and commodities have increased the potential for disease incursion, both plant and animal, in countries like Australia. While a comparatively strict quarantine regime and geographic isolation provide substantial protection in Australia, disease incursions are not uncommon. In recent years, there have been several exotic disease outbreaks including wheat stripe rust, bacterial blight of cotton, sugar cane ratoon stunt, potato cyst nematodes, karnal bunt, grapevine leaf rust, papaya fruit fly, Newcastle disease in poultry flocks, and Ovine Johne's Disease (OJD) in sheep. Recent attention on the incursion of plant diseases followed the outbreak of *black sigatoka*, a banana leaf disease, in the Tully district of North Queensland in 2001, and citrus canker, a highly contagious bacterial disease for citrus fruits, in the Central Highlands region of Queensland in 2004.

An outbreak of any pest or disease, either plant or animal, has the potential to be widespread in countries like Australia, with subsequent economic, social and environmental impacts. At the same time, the trade liberalisation process is focused on avoiding quarantine being used as a trade barrier, where the risks of disease incursion are used to 'trump' any potential benefits of increased trade flows. There is a strong economic case for an efficient quarantine regime, with import, monitoring and surveillance procedures, and for appropriate eradication measures when disease outbreaks occur. Estimates of the economic cost of outbreaks, and the benefits of avoiding them, are needed to help weigh policy options about appropriate future prevention and response strategies.

A number of studies have been conducted on the entomology and epidemiology of introduced diseases (for example, Gottwald, Graham and Schubert, 2002). However, little research attention has been paid to the economics of such outbreaks (Hanold, 1996). In Australia, there has been work in recent years in the area of weed management which is analogous to the disease problem in terms of containment options and timing. A review is provided in the next section. Although public policy evaluation and administration of plant disease incursion issues are considered to be important, they remain understudied. The full extent of the costs of damages caused by pest and disease incursions has only recently received greater attention (Evans, 2003). There is only a limited number of studies attempting to quantify the economic losses of plant disease outbreaks and the desirability of appropriate response strategies.

To estimate the economic cost of an outbreak, proper identification of losses incurred and their quantification are important. Costs of an outbreak can be

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generated from three different sources: (i) surveillance, control and eradication; (ii) losses of production, income and employment and its effects on ancillary industries; and (iii) loss of trade access. In addition to these costs, there might be non-market impacts and costs to consider. For example, impacts on biodiversity will not be reflected in market transactions, and would require specialised non-market valuation techniques in the assessment stage.

At a policy-making level, there is often interest in showing that the benefits of control measures outweigh the costs. There may also be interest in evaluating what the net benefits of different control measures should be. Techniques of economic analysis can be used to estimate the economic cost of an outbreak. In this paper, an economic analysis of the government response to the 2004 citrus canker outbreak in Queensland is provided. The analysis is focused on two key issues. The first is to confirm whether control measures were appropriate, while the second is to identify what level of control would have been most effective. An additional consideration for this paper is the economic issues involved in potential compensation for growers affected by the outbreak.

The next two sections of the paper describe the importance of economic analysis and provide a review of the techniques employed to estimate the economic impact of disease outbreaks. The subsequent section discusses the sequence of events of the citrus canker outbreaks in Queensland. Then follows a section, which provides a comparative analysis of the national response strategy to the citrus canker against the alternative Pressler Plan. The penultimate section presents an economic analysis of optimising the response strategy on eradication and control measures. Conclusions are presented in the final section.

The Importance of Economics of Disease Incursion

An economic framework can be used to explain why a government response is typically needed for the prevention and control measures in a disease infected industry. Relying on control by private firms is usually ineffective because any incursion of a disease has an external effect on market activities. Costs are not borne solely by the source of the incursion, but spillover (intentionally or unintentionally) into other areas, without affected parties being able to exact a compensation for the damage incurred. Therefore, many of the impacts of a disease outbreak are spillovers in the sense that the market mechanism is unable to transmit back the true cost of a plant disease outbreak to an infected source.

For instance, neither commercial nor backyard scale citrus growers have adequate incentives for voluntary eradication. Citrus canker containment and eradication actions demonstrate many of the characteristics of a public good. Disease-free industry status has aspects of non-rivalry in consumption (that is, one orchard's ability to enjoy disease-free status does not deprive others) and non-exclusion in provision (that is, it is difficult to exclude growers from enjoying this status). Growers often face powerful incentives not to report disease incursions to the authority responsible for monitoring and surveillance, because the removal of trees can impose major financial losses to orchards. The first infected farm in

Emerald sought an injunction from the court to stop trees being cut and destroyed after the original outbreak in June 2004. In Florida, a legal battle continued for some time to determine whether the regulatory authority should have the right to trespass the property to test for canker infestation and to remove diseased trees (Brown, 2001; Gottwald, Graham and Schubert 2002). However, failure to control the disease would result in negative external effects on other growers as citrus canker would spread to other residences and commercial orchards. Therefore, the costs to other growers are not usually internalised into private decisions, but are of concern to public regulatory agencies and other stakeholders.

Furthermore, prevention of disease outbreaks requires extensive monitoring and surveillance both by the regulatory authority and individual grower. On the part of the growers, this imposes additional costs on them. While there may be market incentives to maintain a disease-free status, there will often be some incentives for free-riding at the individual grower level. This can occur if growers fail to monitor or eradicate in an effort to reduce costs. Therefore, there is potential for market failure at both the prevention and eradication stages and thus a role for government intervention at both levels.

When a disease outbreak occurs, a public policy framework in the form of a benefit-cost test is usually employed to justify control and eradication measures. This often involves a mixture of public and private costs being incurred to avoid more wide-spread private costs if disease became established.

Governments have a range of policy mechanisms to use when addressing disease outbreaks. These include the use of public information and suasion methods to encourage appropriate action and voluntary compliance. Incentives for growers to voluntarily report, control and monitor outbreaks can also be enhanced with the use of financial instruments. Regulatory and control measures are an alternative or extensions to voluntary mechanisms, and have advantages in terms of response certainty and timelines. However, the use of regulatory approaches to control may generate offsetting flow-on effects if they reduce growers' incentives to report and monitor outbreaks. Therefore, there is a number of economic issues raised in disease control measures. From the perspective of society, it is important to determine whether the control and eradication measures are worth the cost of implementation. An economic analysis is considered appropriate for this purpose.

A Review of Economic Analysis Approaches to Disease Outbreaks

Broadly speaking, two approaches are used to estimate the economic cost of an incursion, namely impact modelling and economic surplus analysis. Impact modelling can take the form of an input-output (I-O) model or a computable general equilibrium (CGE) model. An I-O model captures the supply and demand of goods and services in an economy (within an industry, region and economy-wide) in a particular period, as well as the interdependencies among the industries and associated primary factors of production (Elliston, Hinde and Yainshet, 2005). By tracing these linkages between sectors, the model estimates the effect of an impact on the region's output, employment, income and imports, often expressed

in the form of multipliers. An I-O model can be used to capture the direct effects (output, income and employment) of a change in demand or supply as well as the indirect or flow-on impacts on its ancillary sectors (suppliers of inputs and process industries). It can also be used to measure the demand substitution effects, that is, consumers' shift of consumption to substitute commodities.

Computable general equilibrium (CGE) models are constructed on the same data as the input-output models. A CGE model can provide information about the magnitude and sources of economic losses and the appropriate design of mitigation strategy (for example, eradication vs containment). Both I-O and CGE models are able to capture the economy-wide impacts and inter-industry linkages, however, a CGE model has greater flexibility in terms of underlying assumptions and generates less biased estimates compared to I-O model (Adamowicz *et al.*, 2000). Furthermore, CGE models have advantages over I-O models in that they can be used to estimate not only the economic impacts but also the distributional impacts (White and Patriquin, 2003). However, I-O models have advantages in that they help to understand the social and political impacts.

Elliston, Hinde and Yainshet (2005) assessed the economic impacts of an incursion of karnal bunt in a hypothetical situation in South-eastern Queensland using an input-output model. This study, however, failed to capture the changes in economic surplus. The I-O model estimated the changes in output and employment, not the economic welfare, making it difficult to assess the overall gains or losses to society. Wittwer, McKirdy and Wilson (2005) estimate both the micro and macroeconomic effects of a hypothetical incursion of karnal bunt in wheat in the wheat belt of Western Australia using a CGE model. The analysis showed that quarantine restrictions in foreign markets dominated economic losses of the incursion of exotic plant diseases or pests.

Using the MONASH Multiregional Forecasting Model (MMRF), a version of CGE model, Dent *et al* (2002) estimated the likely impact of a foot-and-mouth disease (FMD) outbreak in Queensland and other regional economies. The study estimated the direct impact on 'at risk' industries and associated products as well as the flow-on effects to other industries and the economy as a whole. The study found that an outbreak of FMD would impact not only the livestock farming and meat processing industries, but also other sectors in the economy (for example, tourism). The impact of the hypothetical FMD outbreak in Queensland (a major beef cattle state) was proportionately more severe than the national impact. In Queensland, the real GDP was projected to be \$2,340 million below the base case, while employment was projected to be 33,900 jobs below the base case in Year 7 alone. These losses are far greater than the projected Year 7 losses in the national livestock farming industry (\$700 million and 1900 jobs) and the national livestock product (mainly meat processing) industry (\$200 million and 5100 jobs). Although the estimated total control cost of FMD outbreak (\$500 million) appears significant, however, it is considered to be minor when compared to the potential loss of the national economy.

Economic surplus analysis is used to estimate the net gains and losses of different impacts to society, and is normally preferred to impact modelling as a

more appropriate measure of welfare changes. Within this framework, a partial equilibrium approach can be used to estimate the net losses due to an incursion, and the distribution of such losses between producers and consumers, expressed as changes in producer and consumer surplus. The economic surplus approach can be performed at a case study level, where the net surplus can be estimated with the application of cost-benefit analysis (CBA).

With this method it is possible to demonstrate how a disease outbreak can reduce the welfare gains which might otherwise have been obtained from the industry in the absence of an incursion. The economic surplus method has been used to estimate the cost of weeds in annual winter cropping system in Australia (Jones *et al.*, 2000), and to measure the benefits of the virus prevention program in deciduous fruit trees in the US (Cembali *et al.*, 2003).

Jones *et al.* (2000) estimated the economic costs of weeds and their distribution in Australian annual winter cropping systems using the economic surplus model. The loss of economic surplus due to weed infestations and weed control expenditure was estimated at \$1,133 million in 1999. The distribution of total economic surplus suggested that producers appropriate the bulk of the economic welfare gained from the control measures (about 95 per cent), while consumers gained to a small extent (about 5 per cent) from the reduced market prices resulting from increased production due to weed control. The economic surplus approach measured both direct and indirect costs, but non-monetary impacts were not considered.

Cembali *et al.* (2003) estimated net economic benefits of a virus prevention program for apples, sweet cherries and clingstone peaches in the United States at the nursery, grower and consumer levels as changes in consumer and producer surpluses. Empirical estimates of the expected yield losses at both nursery and grower levels were made using the method of avoided losses. Avoided costs were used to estimate program benefits in three economic sectors: nurseries (avoided change in producer surplus), producers (avoided change in consumer and producer surpluses), and consumers (avoided change in consumer surplus). The empirical estimates suggested that the total benefits for all three sectors were approximately \$227.4 million a year, or more than 420 times the cost of the program.

Paarlberg, Lee and Seitzinger (2003) measured the welfare effects of an FMD outbreak in the United States using the economic surplus method. They decomposed the effect by groups, including livestock producers with animals quarantined and slaughtered and producers not quarantined, using lost sales and producer surplus measures respectively. Similarly, consumer surplus was decomposed for consumers with and without changes of consumption behaviour (that is, whether or not consuming beef considering potential human health effects from an outbreak). The researchers argued that decomposition of aggregate welfare (consumer or producer surpluses) for different groups could provide more accurate estimates of changes for the policy-decision, and help to design compensation provisions.

Rabbits impose economic costs on wool producers, governments, communities and the environment. Vere, Jones and Saunders (2004) provided an

economic analysis of rabbit control measures in the Australian temperate pastures through integrating estimates of the costs of rabbits in the pasture systems and the benefits of implementing control practices from the introduction of rabbit haemorrhagic disease (RHD). The approach taken was to (i) determine the changes in livestock production at the farm level due to supply shifts; (ii) simulate these changes within a livestock industry model (that is, quantities, prices and elasticities); and (iii) calculate the resulting economic welfare changes (that is, net benefits) and the relative benefits and costs of improved rabbit control over time. The study showed that controlling rabbits in temperate pastures by RHD had the potential to generate substantial long-term economic benefits — the benefit-cost ratios were between 2.9:1 and 16.2:1 for a 25 per cent rabbit reduction and for a 50 per cent reduction the ratios were between 5.9:1 and 32.4:1.

Zansler, Spreen and Muraro (2005) employed cost-benefit analysis to determine whether the citrus canker eradication program in Florida could be a useful policy tool in combating the economic ramifications associated with the outbreak using the predicted values of the benefits and the costs associated with the intervention. The results of the benefit-cost analysis suggested that benefits of the program outweighed the costs.

This review of current literatures on plant or pest disease incursions demonstrates that both economic surplus and CBA cannot sufficiently capture the indirect or flow-on effects of an impact. On the other hand, I-O or CGE model cannot take into account non-market impacts or estimate net welfare change. Both approaches have their strengths and limitations. In this paper, the approaches of economic surplus and CBA are used to indicate the economic efficiency of citrus canker outbreak control and eradication strategies in Queensland.

Case of Citrus Canker Outbreak in Central Highlands of Queensland

The citrus industry in Australia makes a substantial contribution to the national economy and the generation of employment. Major citrus fruits in Australia include oranges (navel and valencia), mandarins, lemons, limes and grapefruit. In 2002-03, citrus production in Australia consisted of 81 per cent oranges (valencia 45 per cent and navel 36 per cent), 14 per cent mandarin, 4 per cent lemon and lime and 1 per cent grapefruit. The industry produces around 830 thousand tones of fruit per year with a gross value of production of \$426m in 2002-03. Citrus is one of the major horticultural exports in Australia, generating around \$160m of annual export income and contributing \$250m directly to value-added products (ACG, 2001). Exports accounted for around 20.6 per cent of total production in 2002-03 (PHA, 2004). There was a record export of citrus by value of \$201m in 2002-03 (ACG, 2004). The focus of both the production and export of citrus is on fresh fruits and processed juice products. The citrus industry is Australia's largest fresh fruit exporting industry.

Commercial citrus production in Queensland is localised in the Central Burnett and Central Highland regions; out of 3,000 growers (cultivating 32,000 hectares of land) in Australia, about 300 are located in these regions (ACG, 2001).

Seventy five per cent of Queensland's citrus is produced in the Gayndah-Mundubbera (Central Burnett) region and the Emerald Shire (Central Highland region); the remainder is grown in Bundaberg, Capricorn Coast Region, Wide Bay, Mareeba (Far North), Sunshine Coast and some other small patches of land in the State. The citrus industry generates about \$80m annually to the Queensland economy and supports several thousand jobs, particularly for seasonal workers. The majority of fruit is transported to southern markets and some is exported.

Citrus canker is a highly contagious disease that causes defoliation and dieback, severely blemished fruit, weakens trees and eventually reduces production, although it is not harmful to humans. The disease was first discovered in Queensland in early June 2004 on a 1,200 hectare (ha) orchard with 220,000 citrus trees (Evergreen Farm) near Emerald in Central Highlands region. Immediately after the detection of the incursion, a Pest Quarantine Area (PQA) was declared for the Shires of Bauhinia, Emerald and Peak Downs, surrounding the infested orchard. As well, an interstate ban on the movement of *Rutaceae* (the plant family to which citrus belongs) fruits was imposed. The trade ban was also imposed on the Gayndah/Mundubbera region due to its proximity to Emerald citrus growing region and the possibility that disease might spread through the movement of plant material and seasonal workers. Growers were restricted from trading fruit or plant material within Queensland or interstate. The interstate trade of citrus for fruits grown outside of the Central Highlands and the Gayndah/Mundubbera region resumed on the 22 July, while for citrus growers in the Gayndah/Mundubbera region trade resumed on the 13 January 2005. Furthermore, all Australian citrus growers were required to undergo stricter quarantine checks before exporting fruit to New Zealand pending quarantine surveys to establish state, area or property freedom from citrus canker.

While the European Union stopped importing citrus from Australia until a canker-free status was established for the whole country, export to other markets, particularly canker infected markets in Asia, did not face any restriction.

Citrus canker was widespread on the first affected property. Under the National Citrus Industry Biosecurity Plan (NCIBC) introduced in April 2004, a 'cookie cutter' approach involving destruction of trees within 600 metres of an infected area is considered to be effective control. By late 2004, all the 220,000 trees on the first affected property were taken out with successive 'cookie cuts'.

A second incursion within the Emerald irrigation area was reported on October 5, 2004 on Queensland's largest citrus orchard, known as 2PH Farms, having 326,000 fruit trees. This orchard is only 7 km away from the first infested farm and subsequent DNA testing confirmed that this latter outbreak was linked to the first one. By July 2005, three orchards in Emerald were affected with six outbreaks and over half a million citrus trees had been destroyed.

Some of the revenue and expenditure impacts on the Emerald region can be estimated as follows:

- annual loss of revenue to growers from tree removal as of July 2005 was \$21.3m/year (500,000 trees at \$42.6 estimated annual production/tree);

- annual loss of revenue to growers if all citrus trees removed from Emerald would be \$31.95m/year (750,000 trees at \$42.6/tree);
- surveillance and control cost allocation by government was \$13m (perhaps more than 50 per cent spent in the Emerald region); and
- several hundred full-time jobs and more than one thousand part-time jobs are anticipated to have been lost.

With disease outbreak in livestock, compensation is automatically paid. However, this was not the case with a citrus canker outbreak as no cost sharing deed for emergency pest management was in place during the Emerald incursion.

The Queensland citrus industry has been affected by the loss (short to mid-term) of some overseas markets and if domestic consumers reduce demands for citrus fruits. Such losses will flow the temporary ban on interstate trade. Losses may also extend to domestic markets, especially through to other parts of the economy, such as transport, wholesale and retail sectors. On the eradication side, the citrus canker outbreak has generated higher control costs for private industry, as well as considerable costs for eradication and control by the regulatory authorities. This raises questions as to the impact on Queensland's citrus industry and society as a whole, and whether public expenditure on control and eradication was an efficient use of funds.

The Pressler and the National Citrus Industry Biosecurity Plans

A debate has taken place about the most efficient way to perform control and eradication measures in the region. Under the NCIBP, all trees within 600 meters of an infection are removed, and then monitoring continues. After the first disease detection on the second farm, the owner, John Pressler, put forward a proposal to destroy all the citrus plants in Central Highlands region around Emerald. The core of this proposal, referred to in the media as the Pressler Plan, was for growers to destroy all remaining trees with financial support from the Government. This would involve funding for the growers of \$16m (\$50 payment for destruction per tree). This would reduce any chance of canker spreading and then allow the area to re-plant after two years. The rationale behind the Pressler Plan was that if the current eradication program failed to eliminate the disease completely from the region, on-going outbreaks would lock growers out of markets for long periods of time. If implemented, the Pressler Plan would provide growers with certainty about their re-establishment and market access. After the destruction, the growers will be required to fallow the land for the next two years, replant and wait for the new trees to bear their first crop. An orchard will return to its production in five to six years time.

Considering Emerald's isolation from the other growing regions in the State and the high probability of returning to production, this proposal received support from the growers in the region. However, the government rejected the Pressler Plan, preferring to continue with the response strategy under the nationally approved response plan. It was argued that the response plan would be effective

and that the risk of continued outbreaks was very low. Subsequent to the rejection of the Pressler Plan, two further outbreaks were discovered at the 2PH farm, and another outbreak discovered at a third farm in the region. Finally, the National Management Group in June 2005 supported the removal of all citrus trees, including domestic and wild native trees in the Emerald PQA, but without any provision of compensation or voluntary agreement with growers.

The effectiveness of the NCIBP in eradicating the disease is a key issue. Citrus canker is still endemic in Florida (USA) despite applying the 'cookie cutter' approach for more than a decade in response to citrus canker outbreaks. Grower and industry concern at Emerald was that under the 'cookie cutter' approach all citrus trees in the region might eventually face destruction as further infections were detected.

Evaluating the Response Strategies

An economic analysis of quarantine and control measures can take two basic forms. The first form of analysis is to identify the net benefits of control measures. The net costs of control can be estimated as the changes in producer and consumer surpluses, plus the public expenditure committed to the program. The benefits of the control measure include the avoidance of further public expenditure on controls, the protection of producer and consumer surpluses, and the avoidance of public expenditure on industry and regional community support. Given the size of the citrus industry in Australia, the potential public expenditure involved in controlling a major outbreak, and the vulnerability of many regional communities to a downturn in the citrus industry, it is likely that there are major net benefits associated with controlling the disease.

The averted cost framework can be used to evaluate this issue. For the Pressler Plan to have provided net benefits, the estimated \$16m cost (destruction cost of about 326,000 remaining trees in the Emerald PQA) should have been lower than the cost of potential impacts multiplied by the likelihood of outbreaks occurring. The total cost of a major outbreak is difficult to estimate, but some broad assumptions can be used to help with the analysis. If a major outbreak occurred across the citrus industry, markets would close and there would be substantial control costs. If producer surplus is estimated at 10 per cent of current industry production (\$426m/year), and production is affected for at least five years to return to production, the discounted present value of producer surplus, at an 8 per cent discount rate, may be estimated at \$170m. To this should be added potential control costs, as well as additional welfare payments associated with support for unemployment and impacts on regional communities. Given that a potential control cost of \$13m has been allocated by the government for the Emerald outbreaks, a potential control cost of \$40m may be appropriate for a wider national outbreak. If the citrus industry is closed down in Australia for 5 years, over \$2 billion in direct revenue would be taken out of mainly rural communities. It is not unrealistic to expect that the public support would be

needed to account for the total impact. At a 10 per cent support level, total costs (loss of producer surplus) would be \$200m.

To summarise, an eradication measure for citrus canker has net benefits because it averts three main types of potential costs in the Australian situation:

- losses in producer surplus (effectively the present value of industry profits in Australia);
- avoided expenditure on control measures for major outbreaks; and
- avoided expenditure on industry reconstruction and community support.

Using the rough estimates provided above, the economic benefits of averting a national outbreak of citrus canker are \$410m, while the public cost of eradication was estimated to be \$13m. There are clear benefits in pursuing eradication measures.

The second form of analysis is to identify the level of control that yields the highest net benefits. An example of this approach can be demonstrated by evaluating the net benefits of the Pressler Plan compared to the NCIBP. Here, the difference in the costs of control measures between the plans is compared. Both the tangible and intangible costs and benefits between the Pressler Plan and current NCIBP are summarised in Table 1.

Table 1: Additional Benefits and Costs of the Pressler Plan over the National Citrus Biosecurity Plan

<i>Benefit</i>	<i>Cost</i>
Reduced chance of further outbreaks and hence certainty of returning to farming by growers	Payments to growers for destruction of trees (\$50/tree)
Reduced inspection costs by government over longer term	Replacement costs to replant trees
Increased certainty about eradication and hence avoided loss of domestic and international (especially USA and EU) markets	Loss of production & sales for 5 years (net with other crop return)
Avoided public costs on control of any further outbreaks	Precedence set for different quarantine control plan
Private benefits of replanting with better fruit stock	Potential impacts on other industries (e.g. grapes and melons) if growers diversify into other crops
	Impacts on households of removing all domestic citrus trees

The key issue is whether the reduced risk of eradication represented by the Pressler Plan would have generated sufficient benefits to justify the increased costs. Jetter, Civerolo and Sumner (2003) reporting for citrus canker infestations in California, estimated an eradication boundary of 1,900 feet (579 meters) resulted in a 95 per cent chance of eradication. The probability of eradication increased to 99 per cent if the boundary was increased to 3,000 feet (914 meters).

There have been multiple outbreaks of citrus canker in the United States as the 1,900 feet 'cookie-cutter' approach to eradication has not been fully successful in controlling the disease, indicating that a 95 per cent probability may be overestimated. If the probability of a subsequent outbreak under the NCIBP is only 5 per cent, then the probability of several successive outbreaks is extremely low. Given that the latter has occurred at Emerald, it appears that the real probability of an outbreak is higher than 5 per cent.

If the current NCIBP is assumed to have a 95 per cent chance of eradication and the Pressler Plan assumed to have a 100 per cent chance, the key issue is whether a 5 per cent increase in the probability of eradication would have been justified in comparison to the change in net costs. The key additional cost involved in the Pressler Plan was \$16m to be paid to growers as partial compensation for the removal of the remaining trees.

The total cost of a major national outbreak has been assessed at \$410m. This amount should then be multiplied by the potential risk of occurrence to determine the appropriate avoided cost to consider. At 10 per cent, 5 per cent and 2.5 per cent levels for risk of occurrence, these expected benefits are \$41m, \$20.5m and \$10.25m respectively. Comparing this to the expected cost of \$16m suggests that the Pressler Plan would have delivered net benefits at the 10 per cent and 5 per cent risk levels, but not at the 2.5 per cent risk level. This indicates that the Pressler Plan was justified on an economic basis when the mitigation strategy has only a 95 per cent probability of eradication.

With the 'cookie cutter' approach, the risk of occurrence still remains. Experience in Florida showed that as the boundary of the eradication zone increased, the eradication costs also increased. Spreen and Zansler (2003) estimated the economic costs to Florida citrus growers in two scenarios: production costs associated with the eradication of citrus trees due to a canker infestation, and production costs associated with living with citrus canker. A hypothetical canker-free orchard was modelled for the comparison. Results indicated that the estimated economic loss to citrus growers in an endemic citrus canker situation exceeded the estimated economic loss to citrus growers under eradication. Studies in Florida also showed that 90 per cent of the citrus canker infections occurred within the 1,200 feet buffer, but wind-borne spread could carry viable bacteria as far as 3,900 feet (USDA, 1999). Using Argentina as an example for a Florida citrus canker control program, Muraro, Roka and Spreen (2000) concluded that compared to 'living with canker', eradication was a worthy choice if the disease was identified early and the action was taken swiftly and decisively.

Conclusion

The threat to biosecurity from exotic plant pests and diseases is a major one for Australia, where a single incursion can generate large commercial, economic and social costs. Evidence of this comes from the recent outbreak of citrus canker in orchards at Emerald in Central Queensland. It is not only local growers who bear costs, as a range of other stakeholders (including taxpayers) are potentially

affected. To design an appropriate response strategy, it is important to be able to analyse the impacts and costs in economic terms, and provide a comparison of the potential benefits and costs of different response strategies.

There is controversy concerning the efficacy and economic efficiency of the appropriate response mechanisms to citrus canker outbreaks in Emerald. The public funding allocation for eradication is estimated at \$13m; there will also be a range of private costs involved in control and eradication. The averted costs of the eradication measures are very large, indicating there are substantial net benefits associated with complete destruction of citrus trees in the region.

Questions can be raised about the effectiveness of the NCIBP in two main areas. The first is that plant growers are not compensated for tree destruction in disease control measures. This contrasts to the compensation provided to livestock producers for animals destroyed to control disease (for example, brucellosis outbreaks in the cattle industry). The lack of compensation measures means that growers may face large individual incentives not to report disease outbreaks. Some form of compensation appears to be justified on equity and efficiency grounds, and given the distribution of the benefits of control measures, should be funded by both government and industry.

The second issue about the effectiveness of the NCIBP is that the likelihood of success was overestimated. A basic economic analysis has shown that the Pressler Plan would have been a more efficient control measure if the probability of the 'cookie cutter' approach being successful was 95 per cent or lower. Given that this approach failed, not once, but several times, to control the disease at Emerald, the probability of success of the 'cookie cutter' approach would appear to be much lower than 95 per cent. The economic analysis in this paper indicates that the government should have accepted the Pressler Plan.

These results suggest that the NCIBP is flawed. The control of further disease outbreaks is likely to be enhanced: (i) if there are better incentives for individual growers to comply with the plan; (ii) if more accurate assessment of the probability of success of the 'cookie cutter' approach is provided; and (iii) if more widespread control measures like the Pressler Plan can be considered as the most cost-effective control strategies from the perspective of society. The use of economic analysis to identify the potential benefits and costs of different levels and types of control measures is recommended as part of a review of the control and eradication strategy. This analysis demonstrated that the total net benefit of a complete destruction of the Emerald citrus trees outweigh the costs to control and industry losses under the scenario of at least 95 per cent probability of eradication. To strengthen on-farm biosecurity measures, growers infected with canker can be compensated to offset the loss with reporting the disease and being placed under quarantine restrictions.

Some of the issues of disease outbreak from an economic perspective have been highlighted in this paper. An economic analysis can contribute towards understanding the problems of disease incursion through assessing the economic cost of the incursion and designing the optimal control and eradication strategies. There are private and social dimensions to the control and eradication program

which need to be economically evaluated to justify investment in response strategies. Any response strategy to reduce the economic losses should be based on reliable estimates of control costs and the economic returns to implementing control practices. From an economic perspective, optimising a policy-decision in terms of adopting a response strategy needs to be based on economic principles in that the benefits of the mitigation strategy should outweigh costs.

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Logic of an Australia-South Africa FTA

Ann Hodgkinson and André Jordaan

Australia, previously a strong supporter of multilateral trade liberalisation, recently began negotiating a series of free trade agreements with countries in the Asia-Pacific region. This paper explores, at a conceptual level, the question of whether there is an argument for expanding the geographical scope of these negotiations to include a link to our neighbouring southern continent of Africa. The argument involves a development of the 'hub-and-spoke' framework to indicate that a 'hub-to-hub' agreement between Australia and South Africa would bring benefits both in terms of increased bilateral trade, and provide strategic advantages through enhanced investment and intra-industry trade.

Free Trade Agreements (FTAs) between two countries are a 'second best' approach to achieving gains from liberalisation of trading arrangements compared with multilateral reductions in tariffs and other trade barriers. However, this approach has proliferated in recent years due to difficulties in achieving further multilateral reductions after the failure of the Cancun negotiations, and particularly in response to the growth in Regional Trading Agreements (RTAs) throughout the world. RTAs have emerged strongly in Europe and the Americas. Asian region countries have been late in entering such arrangements but recently there has been an upsurge in activity in this region (Lloyd and McLaren, 2004).

There is a possibility that, as they proliferate, FTAs will coalesce into a tripolar system of trading blocs based on Europe, North America and Asia (Lloyd and McLaren, 2004). The economic theory of preferential trading systems or trade blocs essentially concerns changes to world economic welfare arising from a move to discriminatory trading arrangements. Welfare change is the net effect of trade creation (positive welfare) and trade diversion (negative welfare). Trade creation occurs between members of the bloc as cheaper imports from one member replace higher cost local production, such that net welfare of members of the bloc increases as all countries benefit from production and allocation efficiencies. Trade diversion occurs when lower cost imports from a non-member are replaced with higher cost imports from a member, who differentially benefits from the reduction in protection, such that net welfare of members and non-members falls.

It is further assumed that as the number of blocs falls and each bloc becomes larger, they can use their market power to raise, or lower more slowly, relative tariffs against non-members thus accentuating both negative trade diversion and positive trade creation effects. Consequently, as FTAs coalesce into RTAs, the net welfare effect is ambiguous as the number of trading blocs decreases and the market power of each bloc increases. Further, it is argued that the welfare

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minimising number of blocs is three. This negative welfare effect however is likely to be less if the blocs form with 'natural' partners, defined as trading partners with low transaction (transportation and communication) costs, that is continental FTAs. The high tariffs against non-members' imports will not result in significant trade diversion in such cases as this trade would not occur anyway due to these high transaction costs (Krugman, 1993).

Faced with this prediction, countries outside natural trading blocs would be at a considerable disadvantage and may suffer significant trade diversion welfare losses. Oceania, Africa and Latin America are in this category. Even though theoretically non-discriminatory tariff reductions would be a better policy for such countries (Jones, 1993; Lloyd, 2002; Schiff and Winter, 2003), they will seek to counter this effect with bilateral agreements based on mutual interests. An Australian-South African agreement is a possible response to this situation. This paper explores whether it is a feasible option, and discusses the possible sources of gains from trade from such a FTA.

The arguments in favour of an Australian-South African FTA fall into two categories, which are evaluated in the following sections. First, there is statistical evidence of a rapid growth in trade values between the two countries. The rate of growth in this trade is higher than that of any of the other countries with which Australia has or is considering FTAs, except China. It can also be shown that trade between the two countries is largely complementary. Australia exports predominantly mineral products to South Africa and South African exports to Australia are predominantly manufactures. This complementarity creates a common interest and highlights the likely market protection role of a FTA.

Second, it has considerable strategic advantages. A 'hub-to-hub' agreement would connect Africa and Asia. If the 'rules of origin' conditions were ever to be relaxed, it positions both countries to act as gateways for trade between these two continents in the future. Conversely, while the current situation regarding these rules persists, it makes both countries attractive sites for foreign direct investment from each other. A further strategic advantage arises from its potential to stimulate intra-industry trade within the passenger motor vehicle (PMV) industry. Both countries have relatively high tariff protection for this industry at the moment, and both have plans to reduce this in the near future. The PMV varieties produced in these countries are complementary, such that a FTA would help each industry to expand their exports, thus gaining economies of scale before having to face increased international competition in the future.

These topics are explored within the hub-and-spoke framework developed below. A statistical analysis of existing trade, focusing on the potential trade creating and trade diversion effects likely to arise from such a FTA is provided, and the strategic considerations through intra-industry trade and enhanced investment are analysed. While it is not possible here to develop a full statistical modelling of the net welfare benefits related to an Australian-South African FTA, the case is made that, at least conceptually, there is a logic to such an agreement and that it should be explored further as a policy option.

Framework for an Australian-South African FTA

Economic analysis of FTAs emphasises evaluation of net welfare benefits likely to arise from such an agreement, where the net benefits are the value of the trade creating effects minus any trade diversion effects. The natural trading partners theory postulates that the negative trade diversion effect will be less if trading agreements form between geographically close partners. Baier and Bergstrand (2004) argue that logical or 'natural' partners in FTAs are determined by a combination of comparative advantage and geographical features. A comparison of the economic features of Australia and South Africa are shown in Table 1.

Table 1: Economic Comparison: Australia and South Africa, 2003

	<i>Australia</i>	<i>South Africa</i>
GDP (\$US) Billions	518.4	159.9
GDP per capita (\$US)	29,000	3,503
Population (millions)	19.9	45.3
GDP growth (10 year av.)	3.8%	2.7%
Population growth (10 yr av.)	1.2% p.a.	1.7% p.a.
Population density per sq. km.	2.5	35.1
Unemployment rate	6%	31%
Capital – Labour ratio* (\$US)	9,246	1,472
Ranking in Economic Remoteness**	2	3

* Calculated as consumption of fixed capital divided by labour force.

** Australia and South Africa are ranked second and third most remote countries in the sample of countries considered by Ewing and Battersby (2005). Remoteness is measured as the percentage of world GDP occurring within an increasing kilometre distance from a country.

Sources: World Book (2004); CIA World Factbook (2004); International Monetary Fund (2004).

It could be argued that Australia and South Africa are not natural trading partners. They are over 11,000 Km apart, although not an abnormally different separation than for several other countries negotiating FTAs with Australia. Both are only medium-sized economies and hence bilateral trade flows are not likely to be large. However, both are relatively remote from the major world economic centres and hence could be excluded from emerging trading blocs, suggesting that they should look for alternative means of enhancing their future trade growth. Further, they have different factor endowments with South Africa being relatively labour intensive and Australia relatively capital intensive. This indicates that bilateral trade would be consistent with national comparative advantages.

Empirical studies do not support the 'natural partners' hypothesis. Neither size of existing trade flows or geographic proximity is necessarily associated with welfare effects (Schiff and Winter, 2003). As Bhagwati (1999:14-15) points out, trade creation/diversion effects depend not only on the size of trade flows but also on the elasticity of substitution between domestic goods and non-member imports.

With high substitution, trade diversion will be significant regardless of existing trade levels while low substitution rates enhance welfare benefits from trade creation even if existing trade is low. Further, agreements between geographically close partners will not generate increased welfare if the countries have had past hostilities, while agreements between distant countries with shared interests can promote trade. Each proposition needs to be analysed on a case-by-case basis.

In recent years, both Australia and South Africa, despite a general preference for multilateral trade liberalisation, have been interested in bilateral agreements. Much of this activity has been a response to the proliferation of agreements throughout the world involving their major trading partners, and a fear of being excluded from the merging blocs because of their size and remoteness (Bailey and Perry, 1993). In addition, in a time of coalescing trading blocs, each country has needed to act to safeguard its existing markets against any potential future closure inherent in a tripolar bloc world trading system (Mansfield, 1998). This idea gained currency in the early 1990s, after the US abandoned its strong adherence to non-discriminatory trade policy and began negotiating bilateral trade agreements.

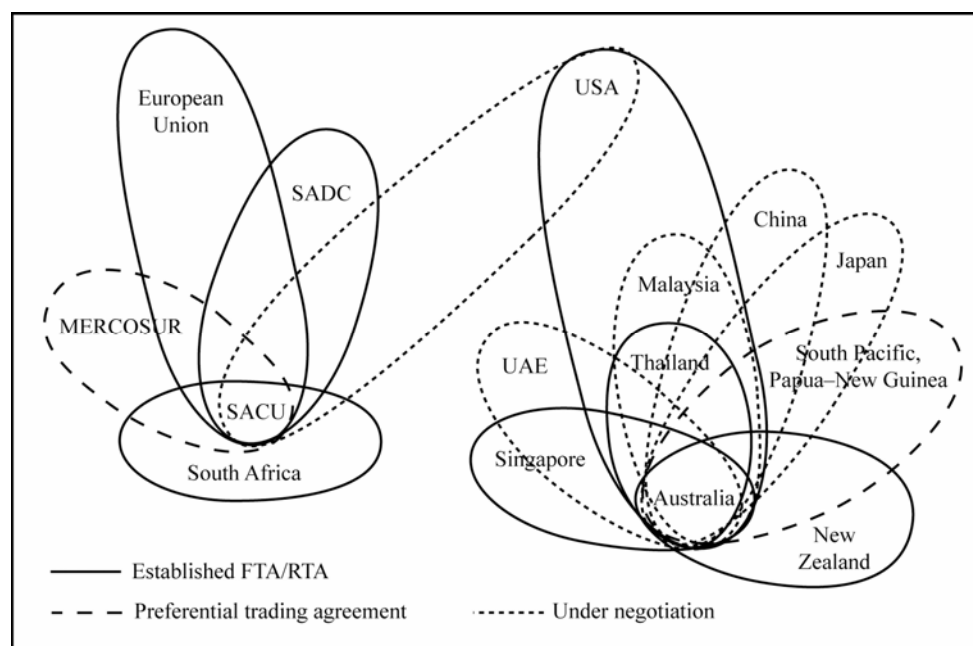
South Africa plays a key role in the African Union and on a regional level in the Southern African Development Community (SADC) which includes 13 other African countries mainly located in the southern and eastern regions. It took a leading role in establishing the New Partnership for African Development (NEPAD) which aims to unite all African countries and promote the economic renewal of the continent. It is thus envisaged that over the long run the whole of Africa would be united, enhancing the potential of pro-active action. South Africa is also a member of the Southern African Customs Union (SACU), along with Botswana, Lesotho, Namibia and Swaziland. SACU has a FTA with the European Union and since December 2004, has engaged in a preferential trading agreement with MERCOSUR (Argentina, Brazil, Paraguay, Uruguay, Chile and Bolivia) and is presently negotiating a FTA with the United States (Schiff and Winters, 2003).

Australia has preferred multilateral trade negotiations and remains committed to APEC's goal of free and open trade and investment in the Asia Pacific region. However, it is also willing to consider FTAs with other significant individual economies or regional groupings likely to deliver faster and deeper liberalisation. It has a comprehensive Closer Economic Relations Trade Agreement with New Zealand and allows preferential access to goods from the South Pacific Islands and from Papua New Guinea. Australia has developed a number of FTAs in recent years with Thailand, Singapore and the US. According to the Department of Foreign Affairs and Trade (DFAT, 2005), Australia is currently negotiating agreements with China, Japan, Malaysia and UAE.

Figure 1 maps the growing involvement of Australia and South Africa in bilateral and regional trading agreements. As discussed below, the Australia-South Africa FTA should offer trade creation benefits arising from both inter-industry and intra-industry trade. The higher growth rates and per capita incomes in Australia provide an opportunity for South African firms to expand their markets and provide badly needed employment opportunities to local people. Even if the Asian and African 'hub-and-spoke' arrangements were to coalesce into

regional blocs incorporating Australia and South Africa respectively, there would be logic in pursuing an agreement for strategic purposes. An agreement linking these two blocs would enhance the importance of each partner as trading ‘hubs’, making them attractive locations for investment, and giving them ‘first mover’ advantages in becoming gateways for regional trade flows between the two blocs.

Figure 1: Australian and South African Trading Agreements



Notes: SACU = Southern African Customs Union: South Africa, Botswana, Lesotho, Namibia, Swaziland.

SADU = Southern African Development Community: South Africa, Angola, Botswana, Dem. Rep. of Congo, Lesotho, Malawi, Mauritius, Mozambique, Namibia, Seychelles, Swaziland, Tanzania, Zambia and Zimbabwe.

MERCOSUR = Argentina, Brazil, Paraguay, Uruguay, Chile, Bolivia.

UAE = United Arab Emirates.

Source: Adapted from Schiff and Winters (2003:76), and Lloyd and MacLaren (2004).

Bilateral Trade

South Africa is currently Australia’s largest and most dynamic trading partner on the African continent. Bilateral relations already exist and both countries have a history of productive cooperation across a wide range of issues. These include the Commonwealth, World Trade Organisation, Cairns Group, Commission for the Conservation of Antarctic Marine Living Resources, the New World Wine Producers Group, the Kimberley Process on conflict diamonds, fisheries protection, customs cooperation, human rights, migration and people smuggling,

law enforcement, and defence relations. Another forum for economic and trade cooperation between Australia and South Africa is the Indian Ocean Rim Association for Regional Cooperation (DFAT, 2005). Thus the two countries have a commonality of interest and open communication channels that would facilitate development of a FTA.

Table 2: Australia's Merchandise Trade with South Africa (\$A'000)

<i>Year</i>	<i>Total exports</i>	<i>% change</i>	<i>Total imports</i>	<i>% change</i>	<i>Balance of trade</i>	<i>% change</i>
90/91	178,099		99,285		78,813	
91/92	226,144	26.97	113,525	14.34	112,618	42.89
92/93	334,242	47.80	191,632	68.80	142,610	26.63
1994	431,877	29.21	288,280	50.43	143,597	0.69
1995	658,874	52.56	365,424	26.76	293,451	104.36
1996	945,922	43.57	453,299	24.05	492,624	67.87
1997	1,020,735	7.91	472,638	4.27	548,097	11.26
1998	1,064,495	4.29	561,292	18.75	503,203	-8.19
1999	912,603	-14.27	640,307	14.08	272,296	-45.89
2000	1,262,260	38.31	852,116	33.08	410,143	50.62
2001	1,298,206	2.85	858,711	0.77	439,496	7.16
2002	1,295,620	-0.19	965,887	12.48	329,734	-24.97
2003	1,324,813	2.25	1,135,252	17.53	189,561	-42.51
2004	1,589,100	19.90	1,249,964	10.10	339,136	78.91

Source: DFAT (2004; 2005)

Over the past five years, total trade between these two countries grew by approximately 10 per cent per year and, in 2004, it was valued at \$A2.8 billion (see Table 2). In addition, bilateral exports of services from Australia and South Africa were \$A267million and A\$275million respectively in 2004 (DFAT, 2005). Taking a long term perspective, the average quarterly rate of growth of trade between the two countries since 1980 was 2.4 per cent. This growth rate is the same as that of Australian trade with Malaysia, and higher than that of trade with Thailand (1.5 per cent), UAE (1.7 per cent) and Singapore (2.04 per cent), all of which are involved in preferential trade negotiations with Australia.

This growth was partly due to the lifting of sanctions but South Africa is also purposely moving away from commodity-based products to more diversified exports including manufactured products. Current exports such as passenger motor vehicles (PMV) were not exported before the sanctions and this trade is thus not merely the result of re-opening old markets. South Africa's trade is still under its full potential and new trading relationships could contribute to filling this gap.

South Africa is Australia's 16th most important export destination and its 24th most important source of imports. The composition of trade largely reflects each country's comparative advantages. Australian main exports to South Africa are

confidential items and special transactions (particularly alumina), coal, crude petroleum, nickel and meat, with some manufactured items such as PMV, machinery and equipment, aircraft and parts. Australia's imports from South Africa were mainly manufactures such as PMVs (mostly BMW series 3 vehicles), furniture, pig iron, televisions and specialised machinery. In 2004, South Africa was the fourth largest exporter of PMVs into Australia. It was also the fifth largest source of arms and ammunition (DFAT, 2005). Increasing trade volumes indicate a potential for renegotiating the trading relationship between the two countries, with the implication that trade creating welfare benefits will increase in future. Many of the items imported into each country are also produced locally. Thus a FTA would have trade creating effects in most of the major traded products, where imports could replace any remaining inefficient local production.

The extent to which these positive welfare effects may be offset by negative trade diversion effects depends on the relative tariff position of these two countries against the rest of the world (ROW). Both countries have been involved in programs of multilateral tariff reductions from relatively high post-war protection regimes. South Africa now has zero tariffs on most products imported from Australia, and thus little trade diversion would result from a FTA in these sectors. Both countries still have tariffs averaging just under five per cent on manufactured products, but with higher levels on PMV, textiles, clothing, footwear and leather, wood and paper products, and furniture. Thus, a FTA may result in a small trade diversion effect in these sectors, which predominantly would occur in Australia if growing South African manufactures displaced similar products from other countries. The impacts on PMV trade are discussed in the next section. Countries also need to consider any negative impacts that could arise from the loss of customs revenue if they rely on it as a source of government income (de Melo *et al.*, 1993). This is not an issue for Australia, where it is only 2.4 per cent of total government revenue (Commonwealth Government Budget Paper No. 1, 2005-2006) or South Africa where customs duty was only 3.6 per cent of total tax revenue (Schiff and Winter, 2003:95).

Overall, an initial evaluation of a FTA between Australia and South Africa would indicate that it would result in a positive net welfare effect. This effect may be small as trade volumes, except for the two major export items, and existing tariffs are relatively low. However, this initial assessment does not include effects that may arise from strategic issues associated with intra-industry trade and investment considerations, as discussed below.

Strategic Considerations

Intra-industry Trade

The general findings outlined above are modified if trade involves imperfectly competitive goods. In a situation where there are many import-competing goods produced with economies of scale, several effects can arise from a FTA. Production of some goods will expand as the partner's market is taken over and

firms obtain cost reductions with scale, consequently consumer prices fall. The competing firms in that market cease production as they become non-competitive. These two effects generate trade creation welfare benefits from reduced prices for consumers in both partner countries arising from the elimination of protection and reduced production costs. Profits, however, move from the less successful firms to those in the more competitive country. Imports from the rest of the world (ROW) may be reduced if they are displaced by the FTA partner's lower cost production, due to trade diversion in the first country and trade displacement by domestic production in the successful country. The extent to which these negative welfare effects arise depends on how significantly the relative tariff between the FTA partners and the ROW rises, thus suppressing the benefits from the economies of scale cost reductions. This depends on the elasticity of substitution between domestic production and ROW imports (Corden, 1999:196-197).

For a FTA to be viable, each country must have firms that can benefit from these economies of scale and can expand into each other's markets, such that both countries achieve some increase in production, employment and profits (Baldwin and Venables, 1995, Krugman, 1995). The likelihood of this increases with trading of differentiated products. Consumers in each country buy a number of varieties, due to differences in tastes. Trade thus reflects specialisation advantages from decreasing returns to scale rather than differences in the factor endowments of each country. Of the models based on imperfect competition, horizontal differentiation is relevant in this scenario. There are two main approaches to horizontal product differentiation, namely the 'love of variety' approach (Krugman, 1979, Helpman, 1981) and the 'ideal-variety' approach (Lancaster, 1966; 1980). The first assumes that consumers value variety and prefer a larger variety of goods. Under the second, a certain specification of a product rather than the availability of a range of goods is preferred by consumers. Each consumer has a most preferred or ideal product. Thus, even if similar products are manufactured locally, some consumers will prefer imported models. In the 'love-of-variety' approach goods enter the utility function symmetrically and an increase in available varieties increases the welfare of all consumers. In the 'ideal-variety' approach, goods enter the utility function asymmetrically and an increase in variety does not benefit those previously consuming their ideal variety. Thus, for PMV, imports and exports will occur simultaneously in the same market segment making some consumers better off while others may not gain (Sichei, 2005).

The Department of Trade and Industry (DTI) in South Africa developed an Integrated Manufacturing Strategy in 2002 because manufacturing was regarded as a catalyst for accelerated growth, increased exports and employment. South Africa's competitive advantage in PMV is based on its ability to operate with short or low-volume runs, competitive tooling costs and a high degree of manufacturing flexibility. As a right-hand-drive (RHD) country, it has a further cost advantage when exporting to similar countries such as the UK, Australia and New Zealand (DTI, 2002). The main PMV producers are Ford, Volkswagen, Toyota and BMW. Ford (S.A.) is about to commence exports of the Focus model to Australia and New Zealand. It also manufactures the Ranger (or Courier) and Drifter for those

markets. Volkswagen (S.A.) produces the Golf model and has been positioned as its sole supplier to the Asia-Pacific region. The Focus and the Golf compete in the medium size market segment. South Africa currently predominantly exports BMW series 3 vehicles to Australia, US, Japan, New Zealand, Singapore, Hong Kong, and Taiwan. In 2003, it exported 21,254 units into the Australian prestige market segment. Toyota exported 8,000 Corollas to Australia in 2003 and a substantial increase is expected in 2004 and 2005 (Anon, 2003). Australia received 15 per cent of the South African PMV exports in 2003 (DTI, 2004).

The Australian PMV industry now largely produces for the large car market segment. Ford produces the Falcon and Territory, both of which are exported to South Africa. Holden produces the Commodore and Lexcon, while Mitsubishi produces the Magna. Neither firm currently exports to South Africa. Toyota produces the Avalon and Camry 6 in the large car segment and the Camry 4—the only medium car now produced in Australia. Both versions of the Camry have substantial exports. Australia also produces small volumes of the Ford Fairlane, LTD, Holden Statesman and Caprice, and the Holden Monaro since 2001 in the prestige market segment, but none of these are currently exported (DITR, 2005).

Analysis of PMV production and trade has to consider global strategies of car companies in addition to comparative costs. Australian and South African PMV producers are subsidiaries of global corporations and are affected by their parent's global positioning. Firms, faced with large economies of scale, high R&D costs, and steep learning curves tend to adopt a strategic trade position, involving demands for both access to export markets and protection of their home markets (Milner and Joffie, 1989), which helps to explain the relatively high tariffs in these sectors. Their support for FTAs is mixed. A FTA is opposed if it is likely to result in direct competition to local production but supported if it is likely to open up new markets for locally developed and differentiated models (Hoy, 2003).

Further, regional production rationalisation by global motor corporations is likely to influence their attitudes to trading agreements. For example, under Toyota's previous (prior to 1999) multinational strategy, both its Australian and South African subsidiaries produced Corollas. As a result of regional rationalisation Australia now imports Corollas from Japan and, since 2003, from South Africa. It exports Camrys and Avalons to New Zealand, the Middle East, South Africa, South East Asia and Oceania (Toyota Global website, 2006). Thus an Australian-South African FTA would be consistent with this strategy.

Small cars represent the largest segment of the Australian market with over 265,000 units in 2004 (DITR, 2005) imported mainly from Japan, Republic of Korea, Thailand, Malaysia and other Asian countries. Increased imports from South Africa would normally have a trade diversion effect against these countries. However, because Australia has, or is currently negotiating FTAs with many of these countries, a FTA with South Africa would prevent trade discrimination against its exports, rather than create trade diversion in its favour in most cases—under the circumstances, significant trade diversion might occur only against small cars from the Republic of Korea.

Two other South African PMV producers, Ford and Volkswagen, are planning to export to Australia. These models would compete against locally produced Camry 4 series cars and should produce some small trade creation welfare effects. Given that Toyota is the only remaining Australian producer of medium-size cars, it could be assumed that Australia is relatively inefficient in this segment. However, since 2001, over 60 per cent of Australian production has been exported (DITR, 2005) suggesting otherwise. Thus increased competition in the medium car market should have trade creating welfare benefits with distribution of profits being determined by the relative strengths of each producer.

Australia also has competitive advantages in the large car segment. Since 2001, almost 20 per cent of production has been exported. South Africa does not produce in this segment. Toyota and Ford are currently the main exporters to South Africa, although a FTA may encourage Holden and Mitsubishi to also commence exports. An expansion of production would create welfare benefits for Australia if prices fall with economies of scale. Australian manufacturers have a cost advantage in being RHD producers and the transport cost effect would be minimised as the alternative producers in Europe, Japan and the US have to cover similar distances. Thus trade diversion should not be significant. In South Africa this market segment is probably small because low average income levels suggest only a small proportion of the population can afford large and prestige cars.

South Africa exports of PMV into Australia are currently predominantly the BMW series 3 vehicles in the prestige segment. Australian imports almost 90 per cent of this segment and has no exports. There may be a small trade creating welfare effect against local prestige car production, but the main effect would be trade diversion against other prestige car imports, which are currently coming particularly from Germany and the US. Due to BMW's global production strategy (BMW website, 2006), the South African BMWs would not compete against German production of this brand, but would of course compete against models from other German and European manufacturers. Trade diversion effects would be reduced by RHD cost savings and by lower transport costs from South Africa to Australia. South Africa would also benefit from trade creation from economies of scale and cost savings from expanded production leading to price reductions. The welfare gains and losses discussed above are summarised in Table 3.

Table 3: Possible Welfare Effects of an Australia-South Africa FTA from PMV trade.

<i>Segment</i>	<i>Production with Trade Creation Benefits</i>		<i>Diversion Possibilities</i>	
	<i>South Africa</i>	<i>Australia</i>	<i>South Africa</i>	<i>Australia</i>
Small	Corolla			Some
Medium	Golf, Focus	Camry 4	Some	Minor
Large		Camry 6, Territory	Minor	
Prestige	BMW			Minor

Investment

If both countries already have low tariffs on most traded goods, a FTA can deliver benefits from improvements in regulations on things such as investment, trade in services (banking, financial services, transport), protection of intellectual property, non-tariff measures, the settlement of disputes, health and safety, and product standards. Reducing and harmonising regulations will generate a range of benefits likely to stimulate investment flows between the partners leading to opportunities, not only for FDI, but also co-production, joint marketing and the transfer of technology (Weintraub, 1993, Wonnacott, 2001).

These benefits are heightened if the two partners in a FTA are also 'hubs' within their own regional trading areas. The strategic benefits will vary depending on the rules of origin conditions contained in each hub's arrangements with its other FTA spoke partners (Atkins, 1993). If these do not allow the trading of goods originating in one spoke through the hub to its other spokes, then the 'hub-to-hub' arrangements will stimulate FDI and joint ventures located in the partner hub. Thus, for example, should South African firms wish to access the US and Asian markets already involved in FTAs with Australia, they will need to invest in production facilities in Australia. The reduction in regulation and harmonisation of standards negotiated within the Australia-South Africa FTA will assist this flow of investment and would generate economic benefit to Australia. Conversely, the FTA would facilitate an inflow of investment to South Africa from Australian firms seeking to access the wider African and EU markets.

Investment in the two countries might also realign, reflecting their different factor endowments. Labour intensive manufacturers could move to South Africa and export back into Australia, as an alternative to the current movement into Asian countries. This trend could increase over time as Asian labour costs rise. Conversely, African processors of raw materials may find Australia a more attractive location, contributing to the current exports of minerals and metals. Such changes would be efficiency enhancing.

Should the conditions affecting the existing FTAs already entered into by each hub country allow the re-export of products through the partner country into its 'spoke' markets, then this FTA would have the added advantage of converting Australia into a gateway for African exports into Asia, and make South Africa a gateway for Asian exports into Africa. Achieving this type of change to the rules of origin conditions is problematic, and thus the initial strategic benefits will largely be through FDI as discussed above. Some analyses of export-led growth indicate that much of the benefit arises through the nexus between trade and investment rather than exports in themselves (Greenaway and Sapsford, 1994).

Conclusion

Both Australia and South Africa are currently involved in developing a series of regional FTA/RTAs and are developing into hubs within their own regions. It is argued that a FTA joining these two hubs would have strategic advantages in

addition to the usual net welfare trade creation benefits by linking Asia and Africa. In part, the regional gateway role is an opportunistic advantage from being the first pairing between the two regions based on common geopolitical interests. This gateway role will initially be manifest in an increase in investment facilitated by improved regulatory environments negotiated in the FTA. It also positions both countries to take advantage of any future liberalisation of trading rules relating to the re-export of products within FTAs.

While the initial trade creating benefits may not be large, the rapid growth in bilateral trade indicates that these should increase in the future. Furthermore, a FTA would have some interesting impacts on both countries' PMV industries. Both industries currently comprise subsidiaries of global motor companies that are attempting to establish their own positions within the world market. Each has specialised in a different market segment, providing an opportunity to expand into each others market and thus gain economies of scale. This provides the PMV manufacturers in both countries with an opportunity to expand their export markets without any substantial threat to existing production and employment.

The actual value of the welfare effects associated with an Australia-South Africa FTA can only be measured through a complex modelling exercise. Prior to any modelling, a conceptual analysis is required to set its parameters, which has been attempted here. Computerised general equilibrium (CGE) models as widely used to evaluate trading agreements predominantly incorporate perfect competition and constant returns to scale. To capture the effects highlighted in this paper, modifications to include imperfect competition and decreasing returns to scale within the PMV industry would be required. If it is considered that the conceptual argument mounted here warrants placing a FTA between Australia and South Africa on the policy agenda, such a modelling exercise would be the next step in developing this proposition.

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Advancing the Doha Development Agenda

Ken Heydon

The Doha Development Agenda (DDA), the World Trade Organisation's latest round of multilateral trade negotiations, is at a critical juncture. Launched in November 2001, the negotiations suffered a major setback with the failure of the WTO Ministerial Conference in Cancun in September 2003. And while momentum was regained with the issuing of a Framework Agreement in July 2004, the WTO's 6th Ministerial Conference in Hong Kong in December 2005 was unable to capitalise fully on this advance and fell well short of the original goal of setting the terms under which liberalisation would occur.

The Hong Kong meeting made some progress in advancing the Doha Development Agenda and hence the pursuit of growth through trade. But much remains to be done, particularly in settling negotiating modalities in agriculture and non-agricultural market access (NAMA) and in putting some flesh onto the bones of the General Agreement on Trade in Services (GATS). And where progress was made it was qualified, whether in dealing with the concerns of African cotton producers or in improving market access for the products of the least developed countries. Given the work still to do, it is not guaranteed that new deadlines will be met or that the DDA will be concluded on time.

There is much at stake should the momentum of multilateral liberalisation stall. There is a risk of both major opportunities forgone and of systemic strains as discriminatory bilateral and regional deals add distortions to the framework of global trade and investment. Developing countries would be amongst the principal losers. Charting the way ahead will require that trade policy be seen in a broader domestic context which recognises that market opening works best when it is backed by sound macroeconomic policies, flexible labour markets, a culture of competition and strong institutions. Through this lens, trade reform can be promoted as a necessary tool of growth and development rather than as a concession paid to others.

The paper first examines what was achieved at Hong Kong and what still remains to be done, before considering why progress under these negotiations is proving so difficult. We then look at the risks that an enfeebled multilateral trading system would entail, both in terms of liberalization opportunities forgone and systemic strains to the framework of trade and investment. Finally, the paper suggests a way forward in realizing the promise of the Doha Development Agenda.

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Keeping the Train on the Rails

A week before the Hong Kong ministerial meeting, the Financial Times journalist Guy de Jonquieres said two things could be predicted about the meeting. First, it would not succeed in resolving the outstanding deadlock in key areas. And second, it would be declared a success! He was right on the first point, and maybe half right on the second. At least the train has been kept on the rails.

Indeed, the story is not entirely gloomy. Progress was made both in the lead up to Hong Kong and at the meeting itself. Let's first look at the lead up:

- If we take one of the more problematic areas, agriculture, the report of the negotiating chair, Crawford Falconer, referred to 'genuine and material progress' having been made. The report talks of convergence having been achieved on disciplines on export credits and of the attainment of a working hypothesis of four bands for structuring tariff cuts (ranges based on percentage tariff levels for which reductions would be negotiated).
- In trade facilitation, the report by the chair of the negotiating group — the only report approved by Members ahead of Hong Kong — said, with reason, that 'good progress has been made in all areas covered by the mandate'. The focus of negotiations was to be on measures to improve and clarify GATT Articles V (Freedom of Transit), VIII (Fees and Formalities connected with Importation and Exportation) and X (Publication and Administration of Trade Regulations).
- On the eve of the meeting, WTO Members agreed to amend the Agreement on Trade-related Aspects of Intellectual Property Rights (TRIPS) to allow countries with insufficient pharmaceutical manufacturing capacity to import generic versions of drugs still under patent.
- Also on the eve of the meeting, Japan announced a \$10bn program to promote poor countries' exports and the EU committed to step up annual 'aid for trade' to €2bn by 2010, to assist developing countries to implement and benefit from WTO agreements and more broadly to expand their trade.
- Over a somewhat longer period, we know from the OECD-WTO trade capacity building database that, since the launch of the Doha Development Agenda, the total volume of trade-related assistance has increased steadily to reach \$3 billion in 2004.

What about the meeting itself? The Hong Kong ministerial did indeed achieve some forward movement.

In **agriculture**, some progress was made under all three pillars: market access, domestic support and export competition. In market access, the revised ministerial text formalises the 'working hypothesis' on structuring Members tariffs for reduction within four bands, with bigger cuts on higher tariffs. On domestic support, the text confirms the 'working hypothesis' that the Aggregate Measure of Support (the annual level of monetary support provided to agricultural producers) would be classified in three bands. The EU will be in the top band, facing the

highest linear tariff cuts, the US and Japan in the middle and everyone else in the bottom band. The Hong Kong ministerial also sought to bring greater discipline to the various domestic support ‘boxes’. It will be recalled that the amber box comprises trade-distorting support measures that are not linked to production limiting programmes. The Uruguay Round Agreement on Agriculture (URAA) bound total Amber Box payments and subjected them to reduction commitments. The Blue Box comprises trade-distorting measures that are linked to production-limiting policies such as set-asides and production quotas. The URAA exempts Blue Box measures from reduction commitments. The Hong Kong text specifies that overall cuts in trade-distorting domestic support must be at least equal to or greater than the sum of the reductions in Amber Box, Blue Box and *de minimis* support. This is intended to make it more difficult for countries to simply re-classify subsidies in order to dodge reduction commitments. And for export competition, the text calls for the ‘parallel elimination of all forms of export subsidies and disciplines on all export measures with equivalent effect’ by the end of 2013, with a substantial part of the elimination to be realised by the end of the first half of the implementation period.

Cotton was for many the litmus test of success at the Hong Kong ministerial meeting. Here, agreement was reached that developed countries will give duty free and quota free access to least developed country exports as of the conclusion of Doha Round negotiations. Developed countries (that is, the US) will eliminate export subsidies in 2006. The text also provides for faster and deeper reductions in trade-distorting domestic subsidies to cotton than those that will be achieved through the general schedules for domestic farm subsidies.

In **NAMA**, the text provides for a ‘Swiss’ formula for tariff reduction. First proposed by Switzerland in the GATT Tokyo Round (1973-1979) negotiations on industrial tariffs, the Swiss formula seeks to harmonise tariffs through an individual cut to each tariff line. The size of the individual cut depends on a chosen coefficient, with bigger cuts for higher tariff rates. Importantly, the Hong Kong text links the level of ambition for agriculture and NAMA, specifying that this ambition is to be achieved in a balanced and proportionate manner consistent with the principle of special and differential treatment.

And, in a key element of the development package, agreement was reached on the principle that developed countries, and developing countries declaring themselves able to do so, should provide, on a lasting basis, duty free and quota free access for exports from **least developed countries** by 2008.

Still a Long Journey Ahead

Notwithstanding this progress, an enormous amount of work was still left to do. And in some respects, the outcome was weaker than might appear at first sight.

In agriculture, the so-called core modalities, the formulas for cutting tariffs and subsidies, were left unresolved. This task, which was originally set for Hong Kong was deferred until 30 April 2006, with the submission of draft schedules no later than 31 July 2006. This still unfinished business includes the so far

intractable issues of the relevant liberalisation thresholds for developed and developing countries and the treatment of sensitive products, as well as developing countries' self-designated Special Products and the Special Safeguard Mechanism. Developing countries will have the flexibility to self-designate an appropriate number of tariff lines as Special Products guided by indicators based on the criteria of food security, livelihood security and rural development. Developing countries will also have the right to have recourse to a Special Safeguard Mechanism based on import quantity and price triggers. Also to be resolved are the disciplines on food aid, which the EU regards as tantamount to an export subsidy, export credits and the practices of state trading enterprises.

In cotton, it would seem that the overall reductions and the implementation schedules for domestic farm subsidies must be agreed before the depth and speed of cotton subsidy cuts can be negotiated. There will be no early harvest. And it is worth recalling that domestic subsidies make up 80-90 per cent of total US support for cotton.

In NAMA, as in agriculture, the core modalities remain to be negotiated, within the same time period, including the vexed questions of the number of coefficients in the Swiss formula, the meaning of 'less than full reciprocity' for developing countries, the development of sectoral initiatives and the treatment of preference erosion. Moreover, non-tariff barriers, including standards and conformity assessment, which are arguably a greater impediment to trade than tariffs, have yet to be fully integrated into the negotiating process.

In services, there seems to have been a step backwards. The text agreed at Hong Kong, instead of obliging members to enter into plurilateral market access negotiations, simply requires that they 'shall consider such requests'. Genuine progress in the GATS will call for an intensified request-offer process, augmented by action within plurilateral groups with shared sectoral interests, leading to multilateral commitments. Groups of Members might develop model schedules such as the Reference Paper on Basic Telecommunications. The Reference Paper consists of a set of obligations for a pro-competitive regulatory framework for basic telecommunications that become legally binding when a Member adds the obligations to its schedule of commitments. It has inspired considerable debate on whether its elements could be transferred to other services — for example, postal, courier and energy services — bearing in mind the specificities of other sectors. And there may be a role for some form of quantitative target in the services negotiations. None of these ideas was advanced in Hong Kong, though some progress is being made in plurilateral negotiations.

Even in trade facilitation, there is considerable unfinished business. While negotiating modalities had been broadly agreed prior to Hong Kong, developing countries are not ready to move to legal drafting on the substantive provisions of the agreement before more progress is made in reaching agreement on the scale and nature of technical assistance and capacity building needed to help developing countries reform their customs process. And further clarity is needed on how developing country commitments would relate to issues such as their development needs and implementation capacities.

And finally, the commitment in respect of market access for the products of least developed countries is weakened by the fact that the obligation relates only to, at least, 97 per cent of products originating from LDCs (defined at the tariff line level) and there is no deadline set for the call to progressively achieve compliance with the Hong Kong obligation. The three percent reservation would account for some 330 tariff lines and for some countries this could effectively deprive them of market access for all of their products — it would certainly be highly restrictive on products such as textiles from Bangladesh or Cambodia. Moreover, because eligibility is almost always country-by-country, it is open to developed countries to exclude different sets of products for each LDC and hence limit severely the extent of market access benefits granted.

At the centre of the challenge ahead is the fact that the blockages that we saw before Hong Kong are still with us. As one US Senator put it, negotiators simply kicked the can down the road. Most critically, some parties (such as the EU) say they will not move further on agriculture until others move on services and NAMA, while others (including some developing countries) say the contrary. There are also stand-offs within sectors, as in services for example, where developing country demands on mode 4 (the ‘presence of natural persons’, or the short-term movement of service providers) are pitted against developed country expectations on mode 3 (the supply of a service by one Member ‘through commercial presence in the territory of any other Member’). Nor are stand-offs an exclusively North-South affair. In agriculture, the demands of some OECD countries (notably the US) that others (notably the EU) do more on market access, are matched by demands from some (notably the EU) that others (notably the US) do more to discipline food aid.

Why Progress is Difficult

One explanation that we hear for the difficult and protracted nature of the current negotiations is that of complexity. The agenda is just too full, some would argue. It is true that in contrast with successive GATT rounds (and recalling that the Uruguay Round itself lasted seven and a half years), we are now engaged in real negotiations on agriculture, on opening up markets for trade in services and in dealing with the new issue of trade facilitation.

This complexity, it might be said, is now compounded by the greater diversity of negotiating parties. Developing countries and economies in transition are now much more active participants in the negotiating process. The range of players is certainly wider than during the Uruguay Round, with the G20, which includes Brazil, China, India and South Africa, playing a crucial role in seeking to secure developing country interests, especially in agriculture.

And while it may still be felt that progress in the DDA remains dependent on a broad measure of prior agreement between the US and the EU, it is significant that the real motor of negotiations — albeit spluttering — has been the so-called New Quad of the US, EU, India and Brazil, augmented on occasions into the Five Interested Parties (FIPs), including Australia. It was after all the FIPs who put

together the July 2004 Framework Agreement that revived the Doha Round. And on occasions, the FIPs are further augmented into the G6, which includes Japan. Beyond this core, we have the G90, which draws together the poorer developing countries and the G10, with defensive interests in agriculture. And then there is a whole range of specific interest groups, carrying such splendid names as Friends of Fish, or Very Close Friends of Services. One of the interesting dynamics at Hong Kong was the extent to which the G20 sought to find common cause with the G90, in furthering the interests of developing countries.

This greater complexity and diversity, together with a spoiling role played by many non-governmental organisations, may have contributed to the stand-offs at and before Hong Kong. But stand-offs can lead to trade-offs, which are the very bread and butter of multilateral trade negotiations; the complexity argument is not totally convincing. Moreover, given the treatment of the 'Singapore Issues' — investment, competition, government procurement and trade facilitation were embodied in the work program of the Ministerial Declaration of the WTO Ministerial Conference of Singapore in December 1996 — the scope of the DDA is much less complex than it might otherwise have been. As part of the July 2004 Framework Agreement it was decided that there would be no negotiations on investment, competition and government procurement during the Doha Round.

The underlying problem is lack of the political will needed to surmount technical problems and to face up to some difficult short term adjustment strains. And behind the lack of political will is the widespread anti-globalisation sentiment among those in advanced industrialised economies who elect the political leaders.

What we end up with is a potent mix of fear and complacency. Fear on the part of those who feel vulnerable to change. And complacency on the part of governments who are tempted to believe that trade and investment will keep booming, regardless of what happens, or doesn't happen, at the WTO. There is also complacency on the part of business. They have been much less engaged than during the Uruguay Round, and may feel, mistakenly, that they can get what they want from bilateral arrangements. We hear concerns from business about a disconnect, as product cycles get shorter and multilateral trade negotiating cycles get progressively longer.

This is not just a lesson from Hong Kong. The same forces were at play at the Fifth WTO Ministerial Meeting in Cancun, in September 2003, and risk being with us for some time.

The Risks of an Enfeebled Multilateral Trading System

A new deadline was set for 30 April. But very soon after the Hong Kong meeting it was realised that end-July was a more realistic target. The timetable is becoming tight. If agreement on core modalities is not reached by the end of July, it will be very hard to finish the complex process of completing and negotiating actual liberalisation schedules in time to conclude negotiations by the end of the year. And if that deadline is missed, it will be very difficult to sign off on the DDA before the expiry of Fast Track (Trade Promotion Authority) — necessary

for the expeditious passage of trade proposals through the US Congress — in mid 2007. That in turn could spell a protracted period of drift, as it is by no means likely — after the bruising experience of the negotiation of the Central American Free Trade Agreement (CAFTA) — that Fast Track will be renewed.

Nature hates a vacuum. If multilateral action stalls, other initiatives will fill the gap. Bilateral and regional deals will proliferate even more than in recent years. In the last ten years, almost 200 regional trade agreements (RTAs) have been notified to the World Trade Organisation. Thirty three new agreements were notified in 2004 alone, and 20 more in the first six months of 2005. The imagery is striking. The first thing that happened immediately after the failed Cancun ministerial came to a sudden halt was that the Mexican hosts sat down with their Korean counterparts to work on a bilateral deal. In Hong Kong, the Egyptian trade minister used this multilateral forum to announce that Egypt was about to embark on the negotiation of an FTA with the US.

Does an enfeebled multilateral trading system matter? Let us consider what is at stake. We should be careful not to exaggerate the cost, at least in the short term. If the multilateral system stalls, the world will not fall apart. Farms, factories and service providers will continue to produce. And international trade and investment will continue to grow. According to the latest OECD Economic Outlook, world trade grew by 7.3 per cent in 2005. It is expected to grow by 9.1 per cent in 2006. But there will be a cost. And it will come in two forms: opportunities forgone and systemic strains

Opportunities forgone

Only a comprehensive multilateral process of negotiation will realise the full benefits of market opening and rules strengthening, where the political and economic trade-offs are maximised. Let's look at the potential gains from a successful DDA, and the consequential price of failure, in the four key areas of negotiation — agriculture, non-agricultural market access, services and trade facilitation. In doing so, the focus will be particularly on the interests of developing countries; this is after all the *Doha Development Agenda*.

Agriculture. A lot of work has been done on measuring the potential gains from agricultural trade liberalisation. But this does not, by any means, guarantee certainty of prediction.

There has in fact been a scaling back of estimated gains, particularly for developing countries, as greater account is taken of the situation of net food importers, the effects of preference erosion and the fact that cuts in bound tariffs will not translate into corresponding cuts in (lower) applied rates. Bringing the impact on net food importers into the equation is important as market projections suggest that developing countries as a whole, and the least developed in particular, will face growing net imports of agricultural products. As part of this re-assessment, it has also become clearer that the gains to developing countries from agricultural trade liberalisation will be rather concentrated among a small group of countries, with Brazil among the biggest beneficiaries.

But there are gains to be made. A recent World Bank study suggests that a Doha scenario involving a 75 per cent cut to bound agricultural tariffs, a 75 per cent cut to agricultural subsidy ceilings and abolition of agricultural export subsidies would raise developing country incomes by some \$23 billion, with GDP rising by 0.3 per cent in Latin America, South Asia and Sub-Saharan Africa (see Anderson and Martin, 2006).

Identifying the source of gains is important, and will remain important as we try to generate momentum in the DDA. Fully one half of developing country gains come from their own liberalisation. And, according to the Bank, over 90 per cent of gains come from tariff cuts. Market access barriers are found to be much more important than domestic subsidies because the amount of support granted is much greater and because trade barriers distort both production and consumption while domestic support distorts only production (Anderson, Martin and Valenzuela, 2006).

Moreover, even where OECD countries' agricultural policies do not harm *overall* economic welfare in developing countries, they certainly harm the economic and social well being of farmers in developing countries (Tangemann, 2005). From a development perspective, that is an important consideration.

And the quantification pendulum may swing back again. Most of the modelling work on which current estimates are based are static. As dynamic effects through productivity improvements are brought into the picture it is possible that we will see the estimates of potential gains increased.

Non-agricultural market access. Of the estimated \$97 billion gains from full tariff liberalisation for industrial goods under NAMA, some \$68 billion would accrue to developing countries (Lippoldt and Kowalski, 2003). Fully unrestricted access to all the Quad countries (US, EU, Japan and Canada) would produce substantial benefits for Sub-Saharan Africa, leading to a 14 per cent increase in non-oil exports and boosting real income by about one per cent. Looked at from another perspective, it is worth recalling that in 2002, Bangladesh was charged the same amount of tariffs (around \$330M) on its two and a half billion dollars of exports to the US as France, whose exports to the US were worth \$30 billion.

The question of preference erosion looms large here, as it does in agriculture. However, we find that for all but a handful of developing countries, the gains from across the board MFN liberalisation more than offset the losses from preference erosion (Lippoldt and Kowalski, 2005). And where there are net losses, the answer is not to forgo liberalisation but rather to provide development assistance to the developing countries concerned to enable them to diversify their exports.

Services. The measurement of potential gains from the liberalisation of trade in services is still in its infancy. The estimation of tariff equivalents for services barriers remains imprecise. And there is a growing realisation that costs incurred by foreign suppliers in order to overcome natural barriers, such as different languages and institutions, are mainly one-off fixed costs of entering the foreign market and cannot therefore be transformed into tariff equivalents.

But the modelling methodology is getting better and the data are becoming more reliable. And out of these improvements is a growing sense that the

potential gains from open service markets are very great. This is not surprising. The service sector is now the biggest area of economic activity in all country groupings. Service barriers — usually in the form of behind-the-border regulatory requirements — are particularly high. And services liberalisation acts as a proxy for increased factor mobility — of labour (via mode 4 of the GATS) and of capital (via mode 3).

On some counts, the gains from services liberalisation could exceed gains in the area of goods by a factor of five. Developing countries stand to be amongst the major beneficiaries, in part because of their growing role as exporters of services. Developing countries are particularly successful in sectors such as port and shipping services, audiovisual, construction, and health services. And while developing countries have a clear comparative advantage in labour-intensive services, such as construction, technological advances in the telecommunications and computer industries has enabled them to become highly successful in skill-intensive computer-related activities (Nielson and Taglioni, 2004).

But it may be through the opening up of *imports* that the greatest welfare gains will be realised — or forgone — from services liberalisation. This is because of the critical effects of services barriers on downstream users. Ongoing analysis finds that if account is taken of services barriers, the effective rate of protection for some agricultural and manufacturing sectors actually turns negative, meaning that services barriers contribute to effective taxation of these industries, further compounding the overall distortions to the economy. Examples of manufacturing industry in developing countries that are effectively taxed by services barriers include motor vehicles in Brazil, chemical products in Romania and mineral products in Thailand (Dihel, 2005).

As we saw in agriculture, the sources of liberalisation gains are important and provide a pointer as to where negotiating effort should be directed. Modelling work suggests that considerably greater gains are likely to come from the liberalisation of market access for service providers than from the provision of national treatment. This is intuitively reasonable given that market access restrictions impact on all potential suppliers, foreign and domestic, while national treatment restrictions impact only on foreigners. This is not though the priority allocated by GATS negotiators; again this is not surprising given the central role of non discrimination in the WTO system.

Trade facilitation. Developing countries would capture two thirds of the gains from a DDA agreement on trade facilitation. Furthermore, if trade facilitation reforms are restricted to OECD countries, the resulting trade diversion would cause a three per cent income drop in developing countries (Walkenhorst and Yasui, 2003). It is not bestowing a favour on developing countries to allow them to opt out of liberalisation commitments.

A particular, and legitimate, concern of developing countries in the area of trade facilitation relates to the costs that are likely to be associated with, say, customs reform. Even the most costly trade facilitation measures, however, bring cost savings elsewhere and generate additional government revenue through increased efficiency in revenue collection and improved customs effectiveness.

Mid-way through a five year customs modernisation programme, Angola has increased revenue by 150 per cent. Nevertheless, some upfront costs need to be underwritten by the donor community. And coherence and sequencing are important, as some trade facilitation measures are prerequisites for others.

A multilateral agreement on trade facilitation would help lock in domestic reform while also providing a framework for international coordination and necessary technical assistance. The key here will be to ensure that necessary development assistance is offered, without holding the actual process of negotiation hostage to the aid-for-trade debate.

Another concern expressed by developing countries is that any commitments entered into as part of the trade facilitation negotiations could become subject to dispute settlement. However, as WTO Members are not bound to implement trade facilitation commitments for which they lack the necessary capacity, they would be shielded from dispute settlement proceedings, while nevertheless forgoing the benefits that such commitments would bring.

Systemic strains

Beyond these, not inconsiderable, opportunities forgone, a stalling of the motor of multilateral trade reform would see systemic strains which, over the longer term, could prove even more costly. Three threats stand out: the entrenchment of existing market distortions, the downsides of bilateralism and pressures on the dispute settlement system.

The dangers of entrenched distortions are nowhere more apparent than in agriculture. Some 30 per cent of OECD farmers' receipts come from a combination of government interventions in markets and budgetary payments. What is even more important, fully three quarters of this support comes from the most trade-distorting types of policy instrument such as import tariffs and export subsidies (OECD, 2005a).

Do these costly agricultural support policies meet their objective of supporting small farmers? It seems not. In the OECD area one dollar spent on price support adds a mere 25 cents to farm income. And because domestic support is still coupled to production, most of the benefits accrue to very large wealthy operators, not to the small farms. In the EU, 25 per cent of farms (largest farms) receive 70 per cent of all farm support. In the US the figure is 90 per cent. It has been estimated by the Groupe d'Economie Mondiale at Sciences-Po that in France over a quarter of support under the Common Agricultural Policy goes to just five per cent of farmers (*The Economist*, 2005).

The relationship between regionalism and the multilateral trading system is a topic in its own right and I shall only touch upon it. It is also not a black and white matter. Regional trade agreements can be more ambitious than the WTO. Many of them, for example, provide for a negative listing approach to services liberalisation under which all sectors are liberalised except those that are specifically excluded from the negotiations, and which is generally regarded as being more comprehensive and transparent than the positive listing approach

embodied in the GATS and which uses a bottom up technique whereby countries negotiate which sectors are to be liberalised. And there can be synergies, such as the way in which the GATS Understanding on Commitments in Financial Services took advantage of insights gained in financial market opening at the regional level.

But regional and bilateral deals introduce systemic strains through the diversion of trade and investment, and through the increased costs imposed on business by the proliferation of rules of origin and product standards. And though it is usually denied, the negotiation of RTAs does impose an opportunity cost on the scarce time of trade policy officials.

Turning to the third systemic risk, there is a danger that if the DDA process stalls the WTO will, as one observer has put it, proceed by litigation instead of legislation; in other words, there is a danger that dispute settlement will take the place of rule making. This in turn would put even more strain on the dispute settlement process and, without the underpinning of progressively strengthened rules, eventually undermine the authority of the process itself.

The dispute settlement system has not been working badly. Though the number of disputes has grown, decisions are for the most part respected and implemented. And of the over 300 disputes submitted to the WTO since its creation in 1995, only a handful have not yet been resolved. But dispute settlement cannot operate in a policy vacuum.

Charting the Way Ahead — Not by Trade Alone

Is there a realistic alternative to the DDA as a way of strengthening the trading system? This seems unlikely, but two propositions are worth briefly considering. The first is that we accept that regional trade initiatives are a fact of life and hence introduce a division of tasks whereby systemic rules issues, like subsidies, would be addressed in the WTO while market access would be left to the regional and bilateral agreements. The problem with this approach is that, apart from the distortions and increased transaction costs entailed in regional arrangements, advancing market access in sensitive sectors is likely to be just as difficult at the regional level as it is in the WTO. The exceptions and lengthy transition periods applying to agriculture in many regional agreements are testimony to this.

Regional and bilateral agreements will only complement the multilateral trading system if that system is itself strong. Only if the WTO system is bringing down MFN trade barriers and strengthening trade rules will the risks of regional distortions be contained and the opportunities for synergies be maximised. Viewed in this way, the pursuit of regional deals as an alternative to a potentially enfeebled WTO system is a cause for concern (Heydon, 2003).

A second proposed alternative to the approach embodied in the DDA is that, in recognition of the growing complexity of the agenda, comprehensive rounds of multilateral negotiations be abandoned and that, for the DDA, the pursuit of a 'Single Undertaking' (whereby nothing is agreed until everything is agreed) be replaced by issue-specific negotiations. In this way, it is suggested, stand-offs could be avoided. But, as pointed out earlier, stand-offs are usually the precursors

of trade-offs. And without the scope for a broad balancing of interests, within and between issues, progress in any one area is likely to prove difficult. One of the most potentially positive things to come out of the Hong Kong ministerial meeting was the agreement to link the levels of ambition in agriculture and NAMA.

We should not lose sight of the promise of the Doha Development Agenda. It brings with it the chance, in agriculture, to move from trade-distorting policies to ones that do less harm to the trading system, while more effectively meeting domestic farm policy objectives. In NAMA, there are opportunities to maximise the gains from international specialisation, while using the Swiss formula approach, agreed in Hong Kong, to lessen the distorting effects of tariff dispersion *within* national economies. In services, some flesh might finally be put on the bones of the GATS, with genuine market opening commitments, balanced by assurances about the right to regulate. And in trade facilitation, very large efficiency gains could be realised within a framework of development cooperation. In all of these areas, the DDA offers the opportunity, through aid for trade, to address developing countries' supply-side constraints and help foster their fuller integration into the multilateral trading system.

It may be possible in the weeks ahead to stitch together a deal that will, through scaled down ambition, avoid a total setback and keep the train on the track. But this will not fulfil the promise of the Doha Development Agenda, nor reap the gains on offer from global trade and investment.

This brings us back to the question of political will. If the DDA is to be brought to a genuinely successful conclusion, a change of mindset is needed. If effectively explained and resolutely implemented, this changed perspective need not take years to achieve. Trade policy needs to be seen in a broader domestic context which recognises that market opening works best when it is backed by sound macroeconomic policies, flexible labour markets, a culture of competition and strong institutions. Market opening works best — and maybe only works at all — in a coherent policy environment which facilitates the movement of labour and capital from declining to expanding areas of activity (OECD, 2005b).

Through this lens, trade reform can be promoted as a necessary tool of growth and development rather than as a concession paid to others. And through this lens it might then be possible to agree on a mechanism whereby once a country's trade under regional deals reached a certain level, preferences embodied in those deals would be multilateralised on an MFN basis.

Policies at the national level must acknowledge that globalisation does result in a decline in certain areas of activity, and that measures are needed to smooth the necessary adjustment for the people concerned. In some cases targeted measures may prove effective in correcting for market failure, but when used such measures should be transparent and cost-effective. In particular, should it be considered necessary to use safeguard measures, it should be on the basis that their potential benefit in providing breathing space for — and public acceptance of — structural adjustment exceeds the costs they entail.

Take just one example. In the mid-1980s, Harley-Davidson was allowed safeguard protection against imports from Japan as part of a restructuring package.

The restructuring worked — the number of Harleys is testimony to that. But there was a cost. To be precise — \$150,000 for every job saved. The important thing though is that the cost was known, and so an informed decision could be taken about the merits of assistance.

Nowhere is policy coherence more important than at the interface between trade and development. This is partly a question of international cooperation, not least among aid donors. But it is also a question of pursuing whole-of-government policies at the national level.

The main outcome of Hong Kong was a strengthened commitment to the development dimension of the Doha round and to the need for aid for trade. But the fact remains that the best way to lift countries out of poverty is through reduced barriers to market access — not least through developing countries' own barrier reduction, as an exercise of enlightened self interest in a framework of domestic policy coherence. Aid for trade has an important role to play, but as the Hong Kong Ministerial Declaration rightly notes, it cannot be a substitute for the development benefits that will result from a successful conclusion to the DDA, particularly on market access. Failure to seriously address the goal of improved market access was undoubtedly Hong Kong's biggest shortcoming. Correcting that shortcoming is still the key outstanding priority for trade policy makers.

Conclusion

The WTO Ministerial Meeting in Hong Kong made some headway in advancing the DDA. And further concerted efforts are being made to resolve outstanding differences. But much remains to be done and it is not assured that the DDA will be drawn to a successful and timely conclusion. Should the momentum of multilateral liberalisation stall, there would be major costs, both in terms of opportunities forgone and of systemic strains to the international framework of trade and investment. Regional and bilateral initiatives will proceed anyway, but if they proceed in the absence of a strengthened multilateral system the risks of serious distortion to patterns of trade and investment will be greater and the entrenchment of vested interests based on preferential deals will make it even harder to promote multilateral liberalisation to the benefit of developed and developing countries alike. Advancing the DDA will require a change of mindset that need not take a generation to effect. Trade liberalisation needs to be seen not as a concession but as an integral part of broad-based economic reform under which labour and capital are allowed to move from declining to expanding areas of activity. This is what should be understood by the *Doha Development Agenda*.

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REVIEW

A Less Costly Trading Environment for the UK?

*Patrick Minford, Vidya Mahambare and Eric Nowell, **Should Britain Leave the EU? An Economic Analysis of a Troubled Relationship**, Edward Elgar in association with the Institute of Economic Affairs, 2005*

Reviewed by Viv Hall

The primary aim of this thought-provoking book (hereafter MMN) is to evaluate the UK's relationship with the EU, under conditions of the mid-2000s. These conditions differ markedly from those of 1975 when withdrawal from the EU was rejected by a referendum. MMN's analysis finds first, that current EU economic policies are immensely costly, not only to citizens of the UK but also to those in the rest of the European Union (REU). Secondly, economic costs are likely to escalate rather than lessen. MMN seem of the view that the UK should continue to collaborate with EU political aims to ensure the unity of Europe and help prevent future wars, but consider that those aims should not impose massive economic costs to EU members. They advance three broad policy options for public debate that are presented primarily, but not solely, from a UK perspective.

The first policy option is MMN's 'reform solution' that would require EU policies changing 'in the direction of free markets, free trade and an effective commitment to no bail-out of insolvent states' (p. 16) and a satisfactory resolution of key political issues. This solution is consistent with the results from their empirical analysis, but they concede its prospects are at best poor.

The second option, a 'UK Protocol' or 'renegotiation solution', proposes renegotiation of the UK's relationship under the Rome Treaty. Its three most far-reaching components would involve: (i) the UK leaving altogether EU protective agreements, such as those on the Common Agricultural Policy (CAP), tariffs and anti-dumping, so as to resume benefits from unilateral free trade. The UK would then have the same access to the EU market as any WTO non-EU member, and the REU would have WTO member access to the UK market; (ii) abrogating the 'social dimension' of the EU, including the Working Time Directive under Single Market laws; and (iii) incorporating into UK law only those agreements explicitly made with the EU, with the result that EU law would no longer be binding on the UK. Three significant further elements would be: (iv) to retain arrangements involving freedom of movement of capital and labour; (v) to continue to participate by arrangement in areas such as competition policy, economic consultations, and coordination of anti-terrorist policies; and (vi) despite the UK already largely having free trade and free market entry in the area of services, to

stay in discussions on the Single Market for services, cooperating on a case by case basis. In essence, the UK would be withdrawing to a unilateral free trade environment, while maintaining EU freedoms of movement of labour and capital, and aspects of a potentially improved Single Market in services. MMN believe this option is not beyond the bounds of possibility.

Option three, 'unilateral withdrawal', would essentially involve the UK withdrawing from EU trade arrangements in favour of 'unilateral free trade', while continuing to co-operate in certain fields.

Although MMN's clear preference is for the 'reform' option, they acknowledge this is unlikely ever to eventuate and advance the second best 'UK Protocol' option for serious consideration. The third option seems a fall-back, but still very serious option. A potential 4th option, 'defensive posture', would involve resisting new incursions from the 'draft EU constitution, the euro, new efforts at harmonisation and any demands for bailout' (p. 225). They ruled that out of consideration, as it would leave the UK still responsible for the very large costs from existing arrangements.

A key reason advanced for the persistence and potential escalation of the substantial economic costs, is what MMN term the 'democratic deficit' within the REU, i.e. consumers' voices are not sufficiently powerful at EU level, as it is the views of governments and industries' representatives that essentially prevail.

Target readership for the book is primarily UK citizens, though its information is also hoped to be of value to citizens of the REU, and those in the Cairns group and the US. Readers pressed for time can get the key messages from reading just Chapter 1; those wanting a considerably more detailed empirical understanding should delve also into Chapters 3 through 6.

Chapter 1 includes a summary view of MMN's quantitative and qualitative judgements, with Table 1.4 providing a short conspectus of economic costs. These are made up of: net UK transfer costs and CAP costs of 0.4 and 0.3 per cent of GDP respectively; manufacturing trade costs of 2.5 to three per cent; potential costs from harmonisation and from insolvent continental state-pension deficits ranging from six to 25 per cent and two to nine per cent respectively; and potential 'doubling of macro volatility' costs from any membership of the Euro. Countervailing economic benefits are judged as hard to identify, and are therefore treated as nil on a net basis.

Chapter 2 provides a basic treatment of MMN's evaluation methodology. It starts with simple comparative static partial equilibrium diagrams, and continues with their 4-bloc, 4-sector, world Computable General Equilibrium (CGE) model, and its Heckscher-Ohlin-Samuelson underpinnings. Those wanting a fuller appreciation of their CGE methodology and empirical simulations are advised at this point to proceed to Chapter 7 and its 4 Appendixes.

But back to Chapter 3, which I found among the more valuable. The chapter is somewhat heroic in attempting to assess potential costs of three relatively seldom included 'other issues': harmonisation costs, associated with the proposed draft new constitution and its Charter of Fundamental Rights; and the state-pension and Euro-membership costs referred to above. The costs they consider

might emanate from the three selected areas clearly have the potential to dwarf costs associated with the agriculture and manufacturing sectors. Australians and New Zealanders may find aspects of this material particularly thought-provoking. Firstly, this could be from the perspective of whether New Zealand should or should not consider abandoning its independent monetary policy, and either participating in an Australasian currency or adopting the US dollar (see Hall, 2005; and Hunt, 2005, for further details). Secondly, MMN's focus on issues of harmonisation together with their associated analytical framework for services presented in Chapter 7, should attract the attention of those interested in assessing progress towards improved Australasian Single Economic Market (SEM) harmonisation of business regulations against the benchmark of a 'world-best' internal and international trading environment.

The broad aims of Chapters 4, 5 and 6 are to analyse issues surrounding the impact of trade barriers associated with the agriculture, manufacturing and services sectors. The chapters largely utilise best available evidence from the studies of others. Facts and findings from Chapter 4 on agriculture are generally well-known, and will be unsurprising to members of the Cairns Group of countries, such as Australia and New Zealand. Chapter 5 on manufacturing is of considerably greater interest, as the extent of these costs is nowhere near as well appreciated. The material on anti-dumping is of particular significance. As emphasised in Blonigen and Prusa (2001), costs of investigations and determinations, have considerable significance beyond any levied anti-dumping duty. In this wider context, efficient New Zealand apple exporters, and other Australasian exporters to the US, Japan and the EU will be able to associate particularly with the flavour of this material. Chapter 6, set in the context of a potential Single EU Market for services, should also be of widespread interest. MMN are suitably cautious on well-known measurement difficulties in service sector areas. Their illustrative partial equilibrium assessment framework appeals as a very useful way of structuring one's thinking on single market issues. They see the basic aim of the proposed form of single market in services as equalising the levels of trade barriers across the EU, rather than aspiring towards the UK's generally efficient, largely free trade and free entry, trade service standards.

Chapter 7 will be of most interest to those wishing to assess the robustness of MMN's judgements. It documents the economic costs associated with each of their 4 sectors, disaggregated into potential gains and losses from 'transfer cost', 'consumer surplus' and 'terms of trade' effects. Empirically, magnitudes of consumer surplus gains or losses dominate those from the other two categories. Also, 'basic manufacturing' and 'hi-tech manufacturing' sector cost magnitudes dominate those associated with agriculture and services. The chapter starts by pulling together the most appropriate effective protection estimates from Chapters 4 to 6. In essence, Bradford's (2003) measures are taken for the agriculture and two manufacturing sectors. Services sector judgements are those of MMN. The key CGE model assumptions, simulation experiments, and basic outcomes are also presented. Their basic modelling is conducted under 'realistic' CAP restrictions, requiring agricultural output to be held at original levels, and agricultural land

supply not to respond to price changes. But a spectacularly illustrative, politically unlikely additional empirical case is described in Appendix C, featuring the implications of relaxing these two restrictions.

Another issue that arises from their basic case CGE modelling, which is potentially controversial for UK citizens, and which applies to somewhat different degrees also to REU citizens, is acknowledged briefly. This involves the potentially major adverse implications for the UK's now relatively modest-sized basic manufacturing and hi-tech manufacturing industries. MMN suggest transitional assistance should be given to manufacturing by UK taxpayers, paid for out their considerable net gains; and that a fundamental re-working of farm and rural environment support should also take place. Dynamic CGE modelling might throw further light on the time paths for these processes of adjustment.

A full appreciation of the material presented in Chapter 7, and hence of the robustness of MMN's overall judgements, requires considerable reader perseverance and some expertise in interpretation of CGE model results. To assist the speed of linking material in the text to specific tables, this reader would have liked more explicit linkages in places, for example to Tables 7.A.1 through 7.A.4. Chapter 8 can be skipped, as most of it appears word for word in Chapter 1.

In summary, this book is a valuable contribution to the economic aspects of a debate which will be of increasing importance, not only to citizens of Britain, but also to those in the rest of the EU, and those currently excluded from trading freely with the EU. In the context of projected major escalations in economic costs to Britain, it is also very useful in constructively advancing three potential policy options for Britain. Citizens of Australia and New Zealand should also find the book's material on Britain and the Euro, and on the analytical frameworks for examining services and harmonisation regimes, particularly thought-provoking.

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NON-AGENDA

With the view of causing an increase to take place in the mass of national wealth, or with a view to increase of the means either of subsistence or enjoyment, without some special reason, the general rule is, that nothing ought to be done or attempted by government. The motto, or watchword of government, on these occasions, ought to be — Be quiet...Whatever measures, therefore, cannot be justified as exceptions to that rule, may be considered as *non-agenda* on the part of government.

—*Jeremy Bentham* (c.1801)

Free Trade Agreements and Investment: A Chinese Perspective

Parikshit Basu, John Hicks and Richard Sappey

In line with the current world-wide drive towards bilateralism, the governments of Australia and China are seeking to establish a bilateral Free Trade Agreement (FTA). An objective of the proposed FTA is to stimulate a greater flow of foreign direct investment (FDI) between the two countries. Although research is inconclusive, this objective is important for growth in both economies. There is also an extensive body of literature on identification of preconditions for successful development of FDI between nations and how it may be encouraged.

Lloyd (2006) believes that international capital flows are important. But he argues that policies to enhance both trade and capital flows are dependent on an environment that fosters supportive, independent and informed public opinion. He notes that the Australia-China FTA Joint Feasibility Study involved a new style of public enquiry into bilateral or regional proposals calling for public submissions. He argues that there should be a process of public enquiry for direct investment flows, but points out that, in Australia, 'there is no practice of public enquiry remotely like that in the field of goods-trade policy' (p. 14). While the Australian Government has canvassed opinions on trade issues related to the Australia-China FTA, there has been less attention to opinions on investment flows. More importantly, there has been almost no consideration of whether the proposed agreement has public support in China, especially in relation to FDI.

From an Australian perspective, it would be useful to know if the Chinese public holds views that support the trade and investment policies likely to be established in a China-Australia FTA. What is the strength of public support for

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such an agreement and the extent to which it is thought to be mutually beneficial to trade and investment flows? Are the Chinese people prepared to accept wide-ranging changes to their economic, legal and social institutions to permit the effective operation of an FTA? In essence, it would be useful to know if the accepted elements of what writers would describe as good international trade and investment policies have been assimilated by those groups in Chinese society whose opinion is likely to be important in the development of Chinese policy. The importance of public opinion in China cannot be discounted, especially when that public opinion is increasingly subject to the influence of China's growing population of tertiary educated professionals whose opinions cannot be ignored by an effective government even if the mechanism for the transmission of opinion is far less transparent than the holding of a public enquiry along Australian lines.

The purpose of this paper is to determine if evidence exists within a specified cohort of the Chinese population (tertiary business students and tertiary business academics) of values and expectations that are considered important by western writers in framing public opinion on which effective international trade and investment policies can be based. Relevant issues that western writers consider important in debates on trade and investment are reviewed in the next section. This is followed by an elaboration of our methodology for conducting the enquiry, a reporting and discussion of our results and, finally, some concluding comments.

Relevant Issues

For many years economists have speculated on the relationship between FDI and trade. Bajio-Rubio and Montero-Muñoz (2001) argue that no consensus has yet emerged. They point out that there have been arguments, with or without empirical support, advancing the view that increased flow of FDI between two countries enhances trading relationship as well as the reverse view that it is trade development that gives rise to greater capital flows between countries. A third view that the causation runs both ways, can also be found in the literature. Somewhat rarer, however, is the argument that there is no relationship between the two. Overall, the strongest argument is that both effects apply at different stages.

In general, the empirical findings, as summarized by Rob and Vettas (2003), are mixed, with some studies supporting the complementarity argument and others supporting the substitution argument. A finding of particular interest is that the relationship between FDI and trade is more pronounced in economies with a trade orientation and that this was particularly so for Southeast Asian countries (De Mello and Fukasaku, 2000). A more recent paper by Pantulu and Poon (2003) suggests that the trade-creating effects of FDI are dominant, but that the impact varies across countries. Lewer and Terry (2003), when considering the question in the context of the ASEAN nations, conclude that financial liberalisation has resulted in increased trade activity. Other writers who found elements of FDI policy to be important included Cheng and Kwan (2000a), Kerr and Peter (2001) and Zhang (2001). While most of these writers focused on policies for greater openness in the economy, Ma (2000) focused on policies that gave rise to greater

efficiency within the economy. Thus, a first issue is, do the Chinese perceive a link between trade and FDI? Will they, for example, encourage freer capital movements, as part of an FTA, to enable the full benefits of internationalisation to be gained or are they likely to retain controls over the capital account that restrict capital movements and limit the impact of a more open trade policy?

In considering whether to operate in another country, a firm must take into account the related disadvantages. Even in countries with the same language and similar cultures, miscommunication and poor understanding of local laws remain problems. The problems are exacerbated when the language is different, the culture unfamiliar and the legal system is largely unknown. As Binh and Haughton (2002) point out, these problems increase the cost of doing business and there may be less expensive ways of achieving the goals other than setting up a subsidiary in an uncertain and foreboding location. Consequently, investment will not take place unless the firm has some advantage that offsets increased costs. They explain that the offset must be a 'firm specific' advantage that cannot be readily replicated by a local firm establishing in the same industry. Such advantages may include secret technology, specific managerial know-how, access to markets outside the country of production, a pool of talented staff, economical and secure access to capital and an ability to spread risks by diversifying production locations. What attractions might Australian firms identify to give them an advantage in the Chinese market? Alternatively, do the Chinese perceive advantages (or disadvantages) in establishing operations in Australia?

There are other factors that will determine the choice of location. Binh and Haughton (2002), following Chakrabarti (2001), identified them as openness, market size, macroeconomic variables (macroeconomic stability, exchange rate, and savings rate), GDP growth, tax incentives, geography, natural resources, low wages, good infrastructure, policy reforms and the nature of institutions. While there is some evidence supporting each as being an important determinant of FDI, there remains significant variability in their importance. Cheng and Kwan (2000a) found the existing quality of infrastructure to be important in the case of China, whilst Zhang (2000) argued that a range of infrastructure improvements were a stimulus to FDI. Ma (2000) found that infrastructure was one of the more important factors attracting FDI to different regions within a country. Are policies likely to be put in place that will encourage the development of additional infrastructure and thus, will be conducive to attracting FDI?

The host country's labour market has been widely studied as a determinant of FDI with a range of studies finding that low labour costs are a major contributor to the allocation of FDI. Sethi *et al* (2003) note the strength of relatively low labour costs and attempts to secure early market entry by US multinational enterprises in Asia. Gao (2002) studied the impact of labour quality in relation to FDI in China and found that it is an important factor in attracting FDI, especially from western countries. However, he notes that earlier studies by Cheng and Kwan (2000a and 2000b) had found that FDI was attracted to China's regions by the size of regional markets, the quality of transportation infrastructure and FDI policy, but not by labour quality. Kerr and Peter (2001) reported that FDI in China seemed to be

influenced by wage levels as well as exchange rate, taxation regime and the degree of openness of the economy. And Ma (2000) found that the labour costs and quality of the labour force were important contributors in attracting FDI. How important do the Chinese think the availability of cheap labour is? Are they likely to be prepared to encourage or permit capital inflow seeking to take advantage of a cheap labour resource? Is investment to exploit labour the type of FDI that Australians would be expected (or want) to pursue in China?

From an external perspective, where FDI is not seeking access to lower cost resources, it is almost always endeavouring to capture a share of the host country's market. Some researchers have found evidence that market size is an important factor (Cheng and Kwan, 2000a; Zhang 2001; Taylor 2003). They argue that the Chinese market, expanded as a result of Government action, was certainly attractive to investors. Do the Chinese see the size of their market as an attraction to FDI? Do they want foreign investors to be catering to the domestic market or would they prefer to see export oriented firms established?

Two of the factors least considered in the FDI literature, but which seem to be increasingly important in the case of China, are culture and the governance of firms. Differences in both, compared with the originating country, can raise the cost of operation in the host country and hence act as a factor discouraging FDI. In the case of culture, Choi (2004), using data on bilateral FDI from the OECD between 1982 and 1997, found that the existence of a common language between the country of outflow and the country of inflow was an important determinant of FDI. In relation to governance, Ye and Valentine (2000) point to the common but often obscure reference in the literature to commercial legal problems for foreign companies investing in China with relatively high levels of disputes. They document the problems which include the importance placed on personal relations, lack of transactions being documented, the fact that Chinese law is more likely to see a contract as a framework rather than detailed clauses that must be followed and that the Chinese Government, particularly when corrupt officials are involved, appears less able and inclined to assist foreign investors when disputes occur. Woo (2000:161) argues for reform of China's financial institutions and State Owned Enterprises (SOEs) 'including the creation of a prudential regulatory body to reduce excessive risk-taking by banks'. Concern over Chinese investment systems is a recurring theme in the FTA negotiations. Wang (2000) finds that the informal nature of personal networks has assisted FDI thus partially compensating for the problems associated with Chinese institutions. Do the Chinese recognise that foreigners perceive difficulty in dealing with China because of differences in culture and governance? Is there any indication that the Chinese are prepared to deal with these matters to alleviate the concerns of foreign investors?

There are clearly policy influences on FDI patterns and it cannot be assumed that policies, in any area, will have the same influence on FDI in all sectors of a transitional economy (see OECD, 2003). Increasingly, an important area of study has been the impact of capital account liberalisation on FDI (see Singh, 2003). From an internal Chinese perspective, Pingyao (2002) points to the reform of the foreign investment regime in China as an important explanation for the rise in

FDI. Pingyao argues that the reforms were driven by a desire to acquire access to external technology and to reform the moribund SOEs through the establishment of joint ventures. Do the Chinese still retain this desire? Is it likely that reforms directed at capital inflow will be based on a desire to access western technology?

Finally, we consider why the Chinese might be interested in entering into a FTA (which includes the freeing up of capital movements) with a country like Australia. Usually, an explanation will be provided in terms of the beneficial impacts that the agreement can be expected to have on the economy in terms of the relationship between FDI (and trade) and economic growth. Hsiao and Shen (2003) point out that, in accordance with the Harrod-Domar model of growth, capital formation plays a crucial role. They note that FDI enhances both the stock of capital and its efficiency. Their quantitative work on China supports the OECD (2000) view that FDI is an important source of capital growth and contributes to additional jobs and enhanced skills. However, they also found that the relationship between FDI and growth appeared to be two-way, confirming the earlier findings such as those by Shan, Tian and Sun (1997) that FDI and economic growth have reinforced each other both in China and elsewhere.

Overall, the evidence appears strong that FDI generates otherwise unattainable levels of growth (see Sun, 1998). Again, there are qualifications persistent throughout the literature. Several researchers have advanced reasons for the relatively high level of Chinese economic growth and the connection to FDI (see Hu and Khan, 1997; Hsiao and Hsiao 2004; Zhang and van Witteloostuijn, 2004). The transfer of resources, particularly labour from agriculture to manufacturing, expansion of total exports and foreign investment aimed at securing low cost production and an extensive domestic market are important causal factors here. Evidence to date is generally supportive of the proposition that FDI is causally related to economic growth through a primary aim of export promotion (see Lui *et. al.*, 2002). Are the Chinese aware of the likely positive impact that FDI might have on economic growth? Would such an impact lead them to pursue policies that might lead to a more rapid growth of the economy?

Methodology

Data on Chinese opinion on the issues canvassed above were collected in surveys of 1,515 students and 74 senior academics from two Chinese universities — Tianjin University of Commerce and Changchun Taxation University. Tianjin is a large city of about 10 million people some 150 km north-east of Beijing and likely to be influenced by Beijing's international business climate. Students there are thus relatively more affected by China's international business and cultural interactions. Changchun is a medium-sized city of about 3 million people in Jilin province of northeast China. It has an older industrial structure in an interesting location between the relatively high investment centres on the coast and the relatively low investment inland centres. Changchun is less 'westernised' than larger cities such as Shanghai and Beijing. It was therefore expected that opinions from Changchun respondents would be, in a sense, more 'Chinese'. Thus,

combining the two samples was expected to provide a more balanced representation of the views of Chinese students and academics as a whole.

The surveys, based on written questionnaires and direct interviews (of academic staff only), were conducted in April-June, 2005. Other studies in the general area of free trade agreements have also employed the survey method (see Rugman and Verbeke, 1990). The respondents were not chosen randomly. For the student survey, undergraduate and post-graduate students from commerce courses were invited to participate on a voluntary basis. The questionnaire was administered to some 1,950 students and resulted in 1,515 usable responses, a 77.7 per cent response rate. Ready access to the groups of interviewees was a primary consideration in our choice. However, in each case, the members of the groups met the criteria laid down by Lloyd (2006) of being independent and informed and are likely (especially in the case of business students) to be central to the development of public opinion that will impact upon future policy. The corporate governance pattern in China has been changing rapidly in recent years and current students will become a part of the business leadership. Their opinions on global partnerships such as foreign trade are thus important. Moreover, born during the post-reform period, current university students have grown up in a relatively open (by Chinese standards) political, social and economic environment making them more likely to express their opinions than would previous generations. Thus, although the level of maturity and experience of the students cannot be compared with that of current business practitioners, their views cannot be ignored when considering future directions. Further, an advantage of surveying commerce students is that they represent the next generation of business leaders in China and, in their university programs, are likely to have been exposed to, and developed opinions on, the issues in question which they will take into their imminent business careers. In other words, they are technically competent to express opinions on the matters at hand and are therefore likely to play a significant role in the formation of a public opinion more open to economic reforms.

About half the student respondents (734 students) were from two subject areas only (economics and international trade). Another four subjects covered 379 students (25 per cent). Slightly more than eight per cent (126 students) were from post-graduate courses, mainly from accounting, international trade, and finance. There were significantly more female students among respondents (65.9 per cent), generally in line with the student enrolment pattern in the universities.

Senior academic staff teaching commerce subjects such as international trade, economics, banking, management, marketing and accounting were surveyed and interviewed. About 200 questionnaires were circulated among staff and 74 usable responses were obtained, a 37 per cent response rate. The survey was conducted in two stages. An open-ended questionnaire was used in an initial survey. In the second stage, interviews were conducted with more interested staff members. The interviews were limited to 12 academics only who were willing to, and could moderately communicate in English. Each interview lasted about 30 minutes. General views obtained from questionnaire responses and direct interviews were quite mixed and can broadly be referred to as uncertain. Most of the respondents

and interviewees spoke in general terms, without an extensive knowledge of Australia. It appeared that the academics were not used to relatively open discussion. The responses were conservative and guarded to a large extent.

Survey Results

Students were asked to express their opinions on 21 issues (questions) related to FDI in China. Questionnaires with less than 5 per cent of non-responses were included as usable cases. Results of the student survey on a range of dimensions related to FDI in China are presented in Table 1. Detailed statistical significance tests of samples were not conducted as they are not very relevant for categorical data obtained through these surveys. The survey questions sought opinions on issues that are difficult to group or design a theoretical model based on them. Tests were done in certain areas using demographic features (for example, gender) where results are mostly significant. Standard deviations of responses were estimated in each area and were low (less than 1.0) in most cases. They signify a relatively unified nature of responses. The academics' responses are not presented in tabular form as they related to open-ended questions. They are analysed below along with student responses on respective issues.

The academics agreed that a close relationship existed between FDI and export performance, but were uncertain as to the nature of the causality. On the specific issue of the proposed FTA, the academics stated in general terms that it would be beneficial for both economies. However, during interviews several academics questioned whether the proposed FTA would improve investment flows in particular. They explained that it would be advantageous for Chinese companies to continue to export manufactured products rather than setting up production bases in Australia where labour costs would be substantially higher. Moreover, if Chinese companies had sufficient resources to invest overseas they were more likely to invest in the neighbouring region where they had better knowledge and greater cultural affinity. They stated that return on investment in China in general and on FDI, in particular, was becoming more competitive.

Students strongly supported the freeing up of trade and capital movement. While only 15 per cent were prepared to say that political considerations alone are important, 58 per cent stated that restrictions on the flow of funds inhibited FDI. Only 31 per cent considered that pegged exchange rates impacted beneficially on FDI while 46 per cent supported a floating exchange rate. This is particularly significant in the light of the current debate over the Chinese exchange rate and the move to tie the RMB to a basket of currencies rather than the USD.

On the other hand, the Chinese academics agreed that a stable exchange rate was necessary with the majority of them favouring a pegged rate. They felt that floating the RMB at this point in time would be detrimental to Chinese interests in both trade and investment markets. This is likely to reflect a more conservative attitude in general by older Chinese. It also suggests that the younger Chinese are not bound by the past and are prepared to be more open and outward looking. This difference between the two groups is also evident on other issues.

Table 1: Determinants of Foreign Investment in China — Responses of Surveyed Students

<i>Issue</i>	<i>Responses</i>	<i>Strongly Agree</i>	<i>Agree</i>	<i>Indifferent</i>	<i>Disagree</i>	<i>Strongly Disagree</i>
	<i>No.</i>			<i>per cent</i>		
Political considerations only	1,513	4.2	10.6	6.7	65.1	13.4
Level of restrictions on inflow & outflow of funds	1,505	6.4	51.2	12.3	27.6	2.5
Size of a country (in terms of population)	1,505	9.7	39.0	13.3	34.5	3.5
Fixed (pegged) foreign exchange rate is the best policy	1,496	3.8	27.3	22.7	43.7	2.5
Favourable foreign exchange rate	1,488	12.2	61.2	12.4	12.8	1.5
Economic stability	1,502	28.6	47.2	11.0	12.4	0.9
Economic growth	1,477	18.8	54.0	13.7	12.6	0.9
Fiscal benefits	1,500	14.6	50.7	15.9	16.6	2.1
Availability of cheaper resources	1,510	5.0	30.5	23.1	37.4	4.0
Low wage rate	1,511	7.3	38.6	19.1	30.1	4.8
Level (quality) of working conditions is irrelevant	1,495	3.5	10.6	10.6	54.6	20.7
Good infrastructure facilities	1,499	29.0	56.2	8.3	5.3	1.3
Efficient and fair justice system	1,507	25.9	57.0	11.6	4.8	0.7
Geographical location	1,493	15.7	61.0	16.1	6.6	0.7
Experience of existing foreign investors	1,497	9.1	48.8	26.9	13.7	1.6
Availability of quality manpower	1,510	14.2	47.8	22.3	14.3	1.5
Existence of good corporate governance	1,497	12.2	65.0	14.3	7.7	0.8
Foreign investment helps to increase exports in collaborator's country	1,508	6.6	57.4	22.0	12.7	1.2
Foreign investment helps to increase exports in any country	1,509	6.6	25.5	23.5	40.7	3.6
Trade relationship is a precondition for attracting foreign investments	1,500	8.5	56.5	21.5	12.7	0.7
Trade relationship and financial collaboration are completely independent of each other	1,503	3.4	10.9	10.4	53.4	21.9

In general, the findings suggest that the Chinese student respondents were clearly in favour of foreign investment and new technologies. They had a positive outlook towards Australia, although a lack of detailed knowledge about Australia acted as a limiting factor. Their perception about the Australian corporate sector was very positive and they clearly considered that it would be beneficial for Chinese companies to associate with their Australian counterparts.

Both groups were asked about causal factors of FDI growth. Their responses indicate that they had a good understanding of the factors believed to contribute to FDI as expressed in the theoretical and empirical literature. Previous empirical work has consistently emphasized the importance of good infrastructure as being essential in attracting FDI. The students were aware of this as 85 per cent of respondents agreed that good infrastructure was an important determinant. The academics also considered infrastructure important and (see below) considered that it was the responsibility of government to put infrastructure in place.

As we have seen, some debate continues over the importance of cheap resources and, in particular, labour market factors, in attracting FDI. The students were clearly focused on the development potential of FDI rather than on its exploitative possibilities. While they believed that the quality of working conditions was important in attracting FDI, only 46 per cent identified low wages as being important. Although a majority (62 per cent) identified the availability of skilled labour as being important, this response was much lower than might have been expected. These findings only add to the confusion surrounding the previous conflicting empirical findings about the price and quality of labour as a determinant of FDI. However, helping reconcile these findings is the fact that only 35 per cent of students considered that FDI was attracted to China due to access to cheap resources. The conclusion may reasonably be drawn that they believe that foreign companies are coming to China not to exploit cheap resources and export their product from China, but to capture a share of China's enormous market. The latter, it appeared, was to be encouraged. On the other hand, it is interesting to note that, in contrast, the academics held that the availability of a relatively cheap and disciplined labour force acted as a strong determinant of FDI.

The students rated the macroeconomic considerations as impacting on FDI highly. Economic stability and economic growth were considered important by 76 per cent and 73 per cent respectively, a finding consistent with the literature. However, the size of the market (measured by population) was seen to be far less important (49 per cent) than many other contributing factors. The students had apparently assigned higher importance to longer term factors than to popular issues. Again, this is in contrast to the academics who considered that China's large market was a strong inducement for foreigners to invest in the country.

There was a clear understanding by students that firms are unwilling to invest in a country where the 'culture shock' outweighs any firm-specific advantage. In particular, they stated that FDI could be encouraged by the development of an efficient and fair system of justice (83 per cent) which reduces business costs. There was also a high recognition (77 per cent) of the need to establish a corporate culture that exhibited good governance practices. This indicates a belief that

continued FDI growth could not be assured if institutional problems highlighted by Wang (2000) were not overcome. They clearly believed that development of personal networks alone would be insufficient to attract investment.

Cultural issues were also highlighted by several academics during interviews. They felt that foreign investment from the neighbouring region and from Chinese expatriates offer greater long term potential for China. Several were sceptical about western investment although they agreed that it was necessary to maintain high levels of economic and trade growth. They also argued that the possibility of capital taking flight was more likely in the case of western investors, some referring to 'Fire Sale FDI' (see Krugman, 1998). Interestingly, none of the academics were ready to offer strong opinions about the absence of an appropriate intellectual property protection system in China. They did not consider it as a major hindrance to the inflow of foreign investment, even from western investors. However, they thought that it may be a problem in relation to trade relationships. On the other hand, the academics did consider that the Chinese environmental laws should be improved to attract foreign investors on a longer term basis.

The major difference between the responses of students and academics is apparently based on their relative perspectives. Students were more concerned with short and medium term factors whereas the academics were more cautious and viewed factors from longer term perspectives. Academics were more positive about the role of the Government and felt quite secure under Government policies.

On policy action, the attitude of students was clearly in line with the views of Pingyao (2002) and Mastel (2004) that policy issues are important in attracting FDI. As we have seen, the students were supportive of capital market policies to free-up the movement of funds and supported exchange rate flexibility and policies to enhance the development of infrastructure. In addition, although Ma (2000) downplays the importance of tax concessions in attracting FDI, the student responses indicate that they believe somewhat differently. Nearly 65 per cent of respondents considered fiscal benefits to be important.

Academics and students had somewhat different attitudes toward policy. The students' view appears to be that policy creates the environment in which decisions can be made by the market. The academics tended to advocate a more interventionist role for government. They pointed to concentrations of investment in the coastal areas, and particularly in the Shanghai region, and argued that it was becoming a growing concern for China. They felt that the Government must play a leading role in spreading foreign investment more evenly so that less developed regions could experience its benefits. They argued that under the existing political system the direction of economic activity in this way remains possible. Thus, in their opinion, political factors are still very relevant whereas the students felt such political factors were unimportant. Moreover, the academics thought that provision of preferential treatment to foreign investors through infrastructure support and tax flexibility, for example, must be the responsibility of the Government. However, the academics acknowledged their country's entry into the WTO was an important policy decision that was helping to open up their economy. The majority felt that China was sincere in its commitments towards

the WTO and that the opening of the economy in both trade and investment was likely to continue.

Despite their differences in attitude on some matters, both the students and the academics seemed to be comfortable with the proposition that enhanced FDI would be beneficial for the Chinese economy and therefore to be encouraged. A majority of the academics considered Chinese economic growth (pace of growth, to be specific) both a cause and an effect of FDI in recent years. The students also identified FDI as a cause of export growth and therefore beneficial for the country. As explained earlier, students have strong opinions on trade and investment relationships, the role of political factors and the quality of working conditions.

Conclusions

Australia and China are considering establishing a Free Trade Agreement. Part of the proposal includes measures that will enhance the flow of capital between the two countries. The successful adoption of an FTA between the two countries is likely to enhance the economic development of both. However, the adoption of policies to enhance both trade and investment flows between countries is likely to be dependent on supportive attitudes from those who have some impact on the decision-making processes. In Australia, there has been a wide canvassing of the proposal to enter into an FTA with China from the perspective of trade flows, but less consideration has been given to flows of capital. Further, almost nothing is known of public attitudes to the proposal in China. Knowledge of a positive attitude on the part of the Chinese would assist in developing confidence amongst potential Australian investors who might, at present, have some reluctance in investing in a relatively unknown economy. It is also important to know if the Chinese are likely to be willing to bring about institutional changes in their country that will encourage, rather than hinder, the free flow of trade and capital.

In line with previous research, there is a presumption in China that increased inflows of foreign capital are associated with economic growth. There is also a strong belief that this cause and effect results from the increased productivity of Chinese business resulting from their exposure to improved business management and international trading practices that accompany FDI. Accepting that FDI and growth are aligned, the Chinese are keen to encourage FDI. They realise that the flow of FDI depends on a range of factors and it increases only when most of these factors are favourable. There is wide acceptance amongst the Chinese that an FTA between countries can facilitate investment flows. Our research indicates that the Chinese, as well as the Australians, believe that a strong relationship exists between trade and capital flows and that the encouragement of one will be of benefit to the other. In order to assure a continued flow of FDI into China, the respondents considered it important that they continue the process of opening their economy and developing institutions. In particular, they recognise that funds from the west will only be attracted where measures are taken to ensure an openness, transparency and certainty in economic relationships. These are the very issues that Australian public opinion indicates need to be addressed.

As per the findings of our surveys, China is open to FDI. The Chinese consider that there is profit potential. The Chinese do not have an extensive knowledge of Australia and the Australian Government needs to continue and perhaps expand the promotion of Australian business in China. Attitudes towards the market are changing in China. Although older Chinese (senior academics) still support Government involvement, younger Chinese clearly favour a freer market. Australia could promote its business capabilities more extensively in China, given the strength of large American and European companies. Several issues concerning governance remain problems but the Chinese are aware of these. Australian companies need to be assured that the Chinese authorities are working to overcome them. Investment opportunities are no longer confined to the Special Economic Zones and are emerging in the northern provinces.

However, it should not be considered that conditions are perfect for enhanced flows of capital between Australia and China. Attitudes change slowly and some of the more entrenched beliefs will take longer to overcome. The older Chinese favour investment in 'Asian' economies because of their greater cultural affinity. Fortunately for Australia, the young do not share these views and are more willing to explore a wider perspective. They are also more open to freeing up capital movements, including the exchange rate. They seem eager to be involved in the global economy and believe that they can compete on an equal basis with the rest of the world. They no longer believe that China's economic strength lies in the exploitation of cheap labour but rather in harnessing modern technologies.

Both the students and the academics understood the importance of good infrastructure in attracting FDI. However, only the older Chinese considered political considerations with respect to directing infrastructure developments as being important. The young were less concerned with 'backing winners' than with developing free and transparent markets and institutions which they saw as a precondition for continued high levels of FDI.

In summary, there is good support in China for an FTA with Australia, including FDI. The young are more aware of the need for a freer market in order to maximise the benefits to China from such proposals. To the extent that the Australian government can reach agreement with the Chinese government on establishing an FTA which involves FDI, the results of this research indicate that it could provide an important framework for mutual economic development.

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