

To: Productivity Commission

From: NRHA

“Impact of Competition Policy Reforms on Rural and Regional Australia”

Submission from the National Rural Health Alliance, including comments on the Draft Report

July 1999

COMPETITION AND RURAL HEALTH

**Submission by National Rural Health Alliance
to
Productivity Commission Inquiry
into
Impact of Competition Policy Reforms on
Rural and Regional Australia**



CANBERRA, JULY 1999

EXECUTIVE SUMMARY

The National Rural Health Alliance is the peak non-government body concerned with rural and remote health issues in Australia.

The Alliance is made up of twenty Member Bodies, each being a national body in its own right, representing health professionals, service providers and consumers. A list of the Alliance's Members and much other information about the organisation and its work is on its homepage at www.ruralhealth.org.au

The views expressed by the Alliance are not necessarily the views of each member organisation.

The National Rural Health Alliance exists because the health status of rural and remote Australians is substantially lower than that of those who live in metropolitan areas. This inequality in health outcomes reflects both inequalities in access to health services *and* broader socio-economic inequalities. The Alliance is concerned to ensure a balanced debate on all aspects of the rural and remote health problem, including proper recognition of the role of indigenous health, health service professionals, rural and regional development issues, and broad socio-economic issues.

It is axiomatic that the rural and remote health challenge can only ever be met if there is, *inter alia*, rural development. It is consistent with the Alliance's charter, therefore, that the Alliance concern itself with major economic policy issues that have an impact on rural development. These include taxation and infrastructure issues, the subject of other Alliance submissions this year, and competition policy.

Competition policy can be a vehicle for the promotion of rural development. Some aspects of existing competition policy can be considered to have this effect. If competition policy succeeds in its aims of improving overall national economic outcomes then, *ceterus paribus*, this will have a positive health outcome.

However, competition policy can also act against rural development. In particular, if competition policy exacerbates the socio-economic inequalities that are one of the major causes of the rural health problem, then that would be a matter of direct concern to the Alliance.

It is clear from the Commission's analysis in its Draft Report that competition policy may have improved overall national economic outcomes, but at a cost of increased social and regional inequality. From a health perspective, it is therefore unclear whether the balance of costs and benefits has been a positive one.

The relevant issue is not the mitigation of adverse impacts. A much more positive approach is required - one that promotes regional development.

In addition, competition policy is having an impact on the health sector through measures such as privatisation and outsourcing. While these are not formal requirements of National Competition Policy, they are being "sold" politically as part

of an overall policy approach consistent with National Competition Policy. Moreover, it is clear from the Commission's Draft Report that outsourcing at least is an explicit part of the application of National Competition Policy in some States. It is this broad picture that is important - not fine distinctions between those parts of competition policy that are part of National Competition Policy and those parts that are not.

These aspects of competition policy contain inherent biases against rural and remote areas. The benefits of competition are much lower in those areas, simply because in smaller markets there is less scope for competition, and the costs are much greater. Those costs include the management imposition involved, and responses in the form of "whole-of-agency" and even "whole-of-government" tendering that effectively exclude small local suppliers. It is true that this is an implementation issue - but such a serious implementation issue that it requires a policy response.

In the Alliance's view, competition policy in general, and the Commission's Draft report in particular, should be recast into positive vehicles for the promotion of rural development.

This does not mean that competition policy should be abandoned. Rather, it should be re-balanced to provide greater emphasis on those features that promote rural development, and less emphasis on those that have the opposite effect.

More positively, there should be an investigation into further applications of competition policy that would promote rural development. This should be a part of a comprehensive approach to rural development - one that recognises the social and economic benefits of a more equitable spatial distribution of economic opportunities.

1. INTRODUCTION

The National Rural Health Alliance is the peak non-government body concerned with rural and remote health issues in Australia.

The Alliance is made up of twenty Member Bodies, each being a national body in its own right, representing health professionals, service providers and consumers. A list of the Alliance's Members and much other information about the organisation and its work is on its homepage at www.ruralhealth.org.au

Member organisations represent the broad spectrum of health professionals and providers as well as consumers. While the Alliance seeks to represent all its member organisations collectively, the views expressed are not necessarily those of each individual organisation.

The Alliance exists because health outcomes in rural and remote Australia are worse than those in the major cities. Rural and remote Australians have higher death rates and shorter life expectancies.

There are many reasons for this inequality in health outcomes. Availability of health services is one, but not the only one. In recent times there has been widespread recognition of the problem of doctor shortages in country areas - there has been much less recognition of similar and related issues applying across the spectrum of health services and health professions. Any impacts of competition policy on health service delivery is, of course, of interest to the Alliance.

More broadly, poorer health outcomes also reflect socio-economic disadvantage. Incomes are lower, job and career opportunities fewer, and access to services are poorer. If there is to be equality in health outcomes between metropolitan and non-metropolitan Australia, then there will also have to be equality in lifetime opportunities. In short, there will have to be regional development. Competition policy can impact on regional development, and hence this broader impact is equally of interest to the Alliance.

The Alliance does not believe, however, in taking an unduly pessimistic view of the situation of, or prospects for, rural and remote Australia. Rural and remote Australia has many strengths, and there are regions within rural and remote Australia where regional development is occurring. The task of policy must be to build on those strengths, and address the problems.

This Submission is organised as follows. Following this Introduction, Section 2 provides background information on the relationship between the goals and impacts of competition policy and health outcomes for rural and remote Australians, in the context of the Alliance's approach to regional development. Section 3 provides some comments on the impact of competition on health service delivery, while Section 4 concludes with some more detailed comments on some aspects of the Commission's Draft Report. An Appendix provides some comments on the Commission's modelling work.

2. COMPETITION POLICY, REGIONAL DEVELOPMENT AND HEALTH OUTCOMES

2.1 NATURE AND CAUSES OF RURAL HEALTH OUTCOMES

There should be no doubting the poorer health status of rural and remote Australians compared with those who live in the major cities. Table 1 provides the aggregate figures for health status as represented by death rates and life expectancy for Australian regions.

Table 1 - Life Expectancy and Death Rates

	Metropolitan		Rural			Remote		Total
	Capital cities	Other	Large Centres	Small Centres	Other	Centres	Other	
LIFE EXPECTANCY (years)								
Males	75.6	75.2	74.5	74.7	74.7	72.3	71.5	75.2
Females	81.2	80.8	80.6	80.8	80.8	78.3	77.4	81.1
DEATH RATES (deaths per 100,000 population)								
Males	828	843	886	883	877	1037	1003	849
Females	509	522	534	529	527	651	636	518

Source: AIHW, *Health in rural and remote Australia*, 1998, pp 10,14.

Life expectancies for males are one year longer in the capital cities than in rural areas, and four years longer than in remote areas. For females, the differences are half a year and nearly four years respectively. Similarly, death rates in capital cities are some 5% lower than in rural areas, and 20% lower than in remote areas. These are significant differences by any measure, and justify a considerable national effort to redress them.

Proximate causes of these poorer health outcomes include

- indigenous health. Part of these differences in health status between metropolitan and non-metropolitan Australia reflect the significantly lower health status of Australia's indigenous population, and the greater proportion of indigenous Australians living in rural and remote areas.

However, this does not explain all of the observed difference in health outcomes. Indigenous death rates for both males and females are significantly higher in rural and remote areas than in the cities. Similarly among the non-indigenous population, death rates, particularly for males, are higher in rural and remote areas. Of course, concentrating on the regional dimension of health inequality should not blind us to the much greater inequality in health outcomes between indigenous and non-indigenous Australians regardless of location

- differences in death rates from injury explain a significant proportion of differences in overall death rates between metropolitan and non-metropolitan areas, and road vehicle accidents explain a significant proportion of the differences in death rates from injury. Death rates from injury among males are 34% higher in rural areas than in the capital cities, and 94% higher in remote areas
- the diseases with a significant impact on differences in death rates between metropolitan and non-metropolitan Australia include
 - coronary heart disease (death rates 10% higher for males, and 8% higher for females in rural areas, and 14% higher for males, and 12% higher for females, in remote areas than in the capital cities)
 - diabetes (death rates 5% higher for males, and 12% higher for females, in rural areas than in the capital cities; for remote areas these figures are 74% and 138% respectively)
 - all cancers (death rates 2% higher among rural males, and 4% higher among remote males, than in the capital cities. The death rate from cancers among females is lower in rural areas, but 7% higher in remote areas, than in the capital cities).

To really come to grips with the rural health problem, more fundamental causes of these relatively poor health outcomes in rural and remote Australia need to be considered.

First among these fundamental causes is poorer access to health services. For example

- capital city residents are some 40% more likely to see a GP in a year than are rural residents, and 95% more likely to see a GP than are remote residents
- capital city residents are some 60% more likely to see a specialist in a year than are rural residents, and 188% (nearly three times) more likely than are remote residents
- the density of community pharmacies is 18% greater in capital cities than in rural areas, and 122% (more than double) than in remote areas.

It is inconceivable that such substantial differences in access to services could not be related to the poorer health outcomes experienced by rural and remote Australians.

Second, behavioural and lifestyle differences may play a part. Some of these factors are slightly worse in rural areas (eg female obesity, male alcohol consumption, tobacco smoking). There are, however, other factors that are slightly better (eg, male cholesterol levels, use of sun protection) and a number of others where there is little difference (eg, male obesity, female alcohol consumption). Clearly, behavioural factors can explain only a small proportion - if any - of the health disadvantages of rural and remote Australians.

Third, socio-economic disadvantage is greater in rural and remote areas. There is a wide range of indicators to show this - some of which are included in the Commission's Draft Report. Summary indicators compiled by the ABS on the basis of 1991 Census statistics are shown in Table 2.

Table 2 - Socio-economic Indicators

	Metropolitan		Rural			Remote	
	Capital cities	Other	Large Centres	Small Centres	Other	Centres	Other
Index of:							
Disadvantage	1018	986	981	968	999	975	949
Economic Resources	1041	996	970	956	947	983	905
Education/Occupation	1032	977	979	954	950	958	929

Source: AIHW, *Health in rural and remote Australia* 1998, p 9

Index is standardised to a national average of 1000, with an increase in the index representing a reduction in the degree of disadvantage.

Rural and remote Australia is disadvantaged on the basis of all three indices and, in general, this disadvantage increases with rurality. It is no coincidence that this mirrors almost exactly the pattern of health outcomes shown in Table 1 above.

Other measures of socio-economic disadvantage (eg, across income groups) are also highly correlated with health outcomes.

While the precise causative links between socio-economic disadvantage and poor health outcomes are not fully understood, the evidence of the existence of such a link is incontrovertible.

From a rural health standpoint, policy responses to poor rural health outcomes cannot be confined to service access and delivery measures alone. Even if all inequalities in access to services could be removed, inequalities in health outcomes would remain (albeit diminished).

Recommendation 1:

That recognition be given to the role that a lack of regional development plays in generating socio-economic disadvantage in rural and remote Australia, and, in turn, the role that socio-economic disadvantage plays in causing poor health outcomes. Rural development, therefore, should be seen as relevant to improving health outcomes, as well as to other economic and social objective.

2.2 ALLIANCE'S APPROACH TO REGIONAL DEVELOPMENT

In recognition of the strong link between rural development and improved rural and remote health outcomes, the Alliance last year published a Discussion Paper entitled *A Blueprint for Rural Development*. The following is a brief summary of that Paper.

The focus on rural affairs in Australia has highlighted an opportunity that has long existed: to develop non-metropolitan parts of the nation in ways which are in the national interest and which are quite different from the current ways.

Rural development is joint action by communities and governments to improve the well-being and conditions of people living and working in non-metropolitan areas. Rural development is in the national interest and it affects health. Rural development is a health issue. Without it there are declining communities, with little sense of direction, an uncertain future and poorly motivated leaders. These result in poor health directly through the stress, frustration, and alienation that people feel. They also result in poor health indirectly through the difficulty for governments and the private sector of providing health services to areas that have small, sparse or declining populations.

Rural and regional development policies that currently exist are not maximising the potential of non-metropolitan communities and industries. This means that the nation as a whole and rural people in particular are missing out on income and quality of life that could be theirs.

The key proposal is that a Rural Development Commission (RDC) be established. Given the need to integrate the policies of the three levels of government, it is intended that the RDC be uniquely positioned with respect to Federal, State and local Government.

The business of rural development is complex. As well as the efforts of rural communities themselves, it potentially involves many of the major systems of the Australian economy and society. In particular it involves the taxation system, pricing policies of public and private utilities, and policies and programs of a number of key sectors. These include the transport, health, finance, telecommunications, energy, education, infrastructure, tourism, ecology and arts sectors.

There has been much work in Australia about how the nation and its non-metropolitan communities can find ecological, social and economic sustainability. The challenge is to translate such work into good policies and programs. However, the emphasis on a Rural Development Commission should not be seen as giving governments a pre-eminent place in the future of rural communities. The proper roles of government are critical but, overall, they should facilitate community effort, not replace it. Governments cannot and should not meet the rural development challenge on their own.

Overall the Rural Development Commission would take the lead in national development and application of a new approach to regional and rural development in Australia. It would develop explicitly interventionist approaches to rural

development, justified on the basis of the costs of urban development, and benefits of rural development, that are not taken into account in narrow cost-benefit analyses.

The main areas for the development of specific policies would include the following

- taxation, including
 - options for carbon taxes and credits, polluter-pays systems and environmental taxes
 - a restructure of the taxation system to give 'relative incentive' to rural businesses, services and settlement
- service and commodity pricing policies
- transport policies for rural and metropolitan areas, including fuel pricing/taxation arrangements
- the operation of Community Service Guarantees in the commercial and government sectors
- rural and remote health issues
- telecommunications
- in relation to health, education and transport (as well as telecommunications), extension of the application of Community Service Guarantees
- local employment initiatives
- infrastructure development and maintenance
- national and international tourism. An example in this area would be a new network of public trails and wildlife corridors
- monitoring and evaluation of 'regional development policies' in Australia and overseas
- energy policy, including on alternative sources of energy
- intergovernment relations, such as work on cross-border issues and development of uniform standards
- the finance sector, such as extension of local financial institutions including co-operatives, credit unions and banks
- the arts and culture
- indigenous affairs
- how to improve 'food security' in remote areas
- ecological programs in Australia, including feral animals
- rural social policy, including as it relates to young people, women and the elderly
- Regional Development Corridors

2.3 RELATIONSHIP TO COMPETITION POLICY

Health outcomes are, of course, positively related to economic outcomes. Any economic policy instrument that improves overall economic outcomes will, *ceterus paribus*, improve health outcomes. Hence the Alliance accepts the overall objectives of national competition policy.

However, health outcomes are also related to equity of socio-economic outcomes. Hence any increase in inequality will, *ceterus paribus*, have a negative impact on health outcomes.

The Commission's assessment therefore that National Competition Policy

will bring net benefits to the nation, and to rural and regional Australia as a whole (p xxii)

but that

The early effects have favoured metropolitan areas more than rural and regional areas (p xxii)

and

There is likely to be more variation in the incidence of benefits and costs of NCP among country regions than in metropolitan areas (p xxii)

and

To date, many of these reforms have produced greater benefits for large rather than small businesses, and for business users rather than residential customers (p xxxii)

is of concern to the Alliance and is directly relevant to this analysis.

The increases in inequality the Commission has assessed as having occurred as a result of National Competition Policy must be considered to be an adverse impact, to be set against any overall net benefits. From a health perspective at least, it is not clear that the net impact is necessarily positive.

In this context, the relevant issue in the Alliance's view is not how, in the Commission's words, "to mitigate such effects" (p xxxix). The aim of policy should not be limited to preventing an exacerbation of existing regional (and other) inequalities.

Rather, the aim of policy should be to reduce those inequalities. In the Alliance's view, competition policy - like all arms of policy - should be set in a manner that positively encourages regional development. It is clear from the Commission's analysis that National Competition Policy needs to be thoroughly recast if it is to have this effect.

This does not mean that the Policy should be abandoned altogether. Substantial elements of it do have a positive regional development impact - reforms to regulations constraining Queensland sugar production are a case in point.

Rather, the policy should be recast to emphasise those aspects of it that do promote regional development, with less emphasis on those that do not.

3. IMPACT ON HEALTH SERVICE DELIVERY

Health delivery does not loom large in the formal statements of, or rationales for, National Competition Policy. However, there are impacts on the sector as a result of the provisions concerning the professions, and as a result of outsourcing and similar requirements.

3.1 "WHAT NCP DOES NOT REQUIRE"

In its Overview and summary of the provisions of NCP, the Commission states that NCP "does not require", *inter alia*, privatisation, compulsory competitive tendering and contracting out.

On closer inspection, this turns out to be only a half-truth. As the Commission makes clear in Chapter 11 of the Draft Report, there is a formal connection in that

all jurisdictions have deemed that in-house bids by government agencies for competitive tenders will be subject to competitive neutrality policy — which is part of the NCP reforms. Second, some jurisdictions have unilaterally chosen to tie [compulsory competitive tendering] into their approach for implementing competitive neutrality to meet their obligations under the Competition Principles Agreement (p 270).

More broadly, there is a fundamental *political* connection, in that a number of State Governments are explaining privatisation and similar initiatives in terms of their compatibility with National Competition Policy.

Indeed, it would appear that one of the reasons for the alacrity with which State Governments agreed to National Competition Policy was the political cover the flexibility of the Policy framework gives them to ease the path for controversial policies they wish to follow in any case. To a State like Queensland, where there is little support for major pro-competition initiatives, the processes of National Competition Policy allowed existing structures to be maintained, with some changes as considered necessary (eg, in relation to the sugar industry). To the current Government of Victoria, on the other hand, National Competition Policy has been a buttress to a wide-ranging and controversial policy agenda of privatisation.

The Commission states that the public interest test "has not always been properly understood *or applied*" (p xxix - our emphasis). The Alliance agrees with the Commission that steps should be taken to ensure that this test is properly applied.

In the absence of offsetting measures, the benefits of competitive tendering arrangements are inherently likely to be significantly greater in metropolitan than rural and remote areas.

Competitive tendering is a management task better suited to larger management bureaucracies, such as those in the capital cities, rather than the smaller, more hard-pressed management teams typical of rural and remote service delivery agencies. As a result, the potential quality problems resulting from competitive tendering noted by the Commission (p 275) are likely to be greater in non-metropolitan areas - *a fortiori* given the loss of local knowledge and sensitivity that can be involved.

It is not coincidental, therefore, that competitive tendering is often accompanied by "whole-of-agency" or even "whole-of-government" tendering practices - practices which inherently discriminate against smaller, local providers.

Moreover, the benefits of competitive tendering depend on a competitive market existing. This is much less likely to be the case in rural and remote areas. To create such a market, it is often necessary to widen the market - again often on a "whole-of-agency" basis - and so, once again, discriminate against smaller local suppliers.

In short, the costs of competitive tendering are greater, and the benefits lesser, in rural and remote areas than in metropolitan areas. These issues are not confined to roadworks and local government as discussed in the Draft Report - they apply across a range of public services including health services.

The Commission is not incorrect when it says these are implementation issues. However, implementation deficiencies of this nature are inherent to the policy as it stands, and clearly require a policy response to ensure that these deficiencies are addressed.

4. CONCLUDING REMARKS AND RECOMMENDATIONS REGARDING COMMISSION'S REPORT

In the Alliance's view, the Draft Report should be recast with a view to assessing how competition policy can become a vehicle for promoting rural and regional development.

The Alliance suggests three conclusions for competition policy in this respect.

First, those aspects that result in the removal of some impediments to regional development, as it has with the Queensland sugar industry, should be continued.

Second, regional development should be a more explicit part of 'public interest' tests of the application of competition policy. At present, those tests are only enforced on a negative basis - that is, any jurisdiction that seeks to exempt an activity from competition policy must demonstrate "public benefit" of so doing. The other side of the coin - of jurisdictions that impose competition policy regardless of the public interest - is not considered.

These recommendations are essentially defensive. A third, more pro-active, recommendation is that further opportunities to use competition policy as a tool of regional development should be investigated.

In particular, Chapter 13 of the Draft Report needs to be recast. At present, it is only a summary of existing regional development measures (including some, such as inter-State fiscal equalisation, that have little regional development impact), and a general discussion of some of the dilemmas facing governments in this area.

Those dilemmas are recognised. What is required, however, is a more visionary approach to their solution - along the lines of the Alliance's approach summarised in Section 2.2 above.

APPENDIX - THE COMMISSION'S MODELLING

The Alliance commissioned a consultant to assist in the preparation of this Submission. He has provided the following comments in relation to the modelling work reported in the Commission's Draft Report.

The modelling work of the Commission used in its Draft Report on The Impact of Competition Policy Reforms on Rural and Regional Australia suggests that full implementation of National Competition Policy will

- raise national output by 2.6%
- raise output in all regions except Gippsland
- raise employment in 23 regions and lower it in 34 regions, with a bias against non-metropolitan regions. This implies, given the assumption of constant aggregate employment, a (small) net loss of non-metropolitan employment.

Any economic model is an abstraction of the real world, and hence will only capture some of the effects of a given policy. The relevant questions for assessing a model's results are

- whether the assumed policy change, or "shock", is a reasonable representation of reality
- the impacts included in the model as against the impacts omitted
- whether the assumptions and parameters used in the model are reasonable
- whether the model's conclusions make sense. A "reality check" is an essential ingredient in considering model results, but one that is often omitted.

Any modelling exercise will have great difficulty in adequately addressing all the implications of a policy as complex as competition policy. It is inevitable, therefore, that a simplified version of the policy will be applied as the "shock" to the model. Particularly important simplifications adopted in this case include

- limitations of the scope of competition policy to major infrastructure of electricity and gas, transport, water and telecommunications, and deregulation of dairy, sugar, rice and potato production and marketing. This is only a partial list of the full impacts of National Competition Policy - in particular, it excludes the impact of competitive tendering across a wide range of public services
- the direct impacts of reforms in each sector, eg, on labour productivity and prices for infrastructure, are assumed - they are not generated by the model. Different assumptions on these impacts will generate different results. Most of the assumptions relate to improved productivity in the sectors concerned; some also include lower pricing - to the extent that those assumptions are in dispute, the modelling cannot address those disputes.

The MONASH-RR model is a well-established model for policy purposes in Australia, being based on work initially commenced in the mid-1970s in the (former) Industries Assistance Commission. There is, therefore, a great deal known about both

its applications and its limitations, although its limitations have often been overlooked because of the acceptability of its results.

Particular features of the model that should be noted in the context of this assessment are

- the geographic classification is that used by the Australian Bureau of Statistics. This has the advantage of compatibility with a wide range of ABS statistics (eg, Labour Force statistics). The classification itself, however, has the disadvantage of not being based on sound geographic classification principles. In particular, most regions in the classification consist of a mixture of large centres, small centres and rural/remote areas, and so cannot be summed to give an accurate picture of 'town', 'rural' or 'remote'. In this respect, the classification is clearly inferior to that of the Rural, Remote and Metropolitan Areas (RRMA)
- the model lacks a macro-economic closure. In operating the model, some major macro-economic variables have to be held constant - in this case, aggregate employment, government spending and the budget balance, and the Consumer Price Index. All other macro-economic estimates are determined more by these assumptions than by the operation of the model, and hence are essentially assertions rather than model estimates. The estimate of a 2.6% increase in national output as a result of National Competition Policy falls into this category
 - the argument for assuming constant aggregate employment (that unemployment is currently close to its "natural rate") is unconvincing. That argument reads far too much into both the concept and measurement of the "natural rate" of unemployment; ignores the fact that the so-called "natural rate" is itself a function of developments in actual unemployment; and ignores any implications competition policy may have for the "natural rate". It is, in any case, a facile argument - the model is not capable of endogenously generating estimated macro-economic impacts
- as a "tops down" model, the aggregate impacts are translated into regional output and employment impacts. Because of the essential exogeneity of the aggregate impacts, the regional impacts should be interpreted in relative, not absolute, terms. Similarly, the "tops down" nature of the model means that differences in regional impacts within industries - which would be particularly important for the agricultural policy changes - are not fully captured by the model
- because of the assumption of perfect factor, particularly labour, mobility, the use of a negative estimated employment impact as an indicator of a potential adjustment problem is only a partial analysis. The model cannot provide any indication of structural adjustment problems, such as occupational and/or industry employment rigidities within a region
- the model is comparative-static, that is, it compares two "snapshots" in time, and cannot take account of dynamic effects. One of the implications of this is that it cannot take into account other trends impacting on regional employment and output at the same time - although a valiant, but ultimately only partial, attempt to

do this is made by the comparisons of the effects of National Competition Policy with other trends and developments affecting rural and regional Australia

- this model and its predecessors consistently suffers a credibility problem with its estimated impacts on mining output. Because it is a price-taker in world markets, the model assumes a very large potential for output to adjust in response to price, cost and demand changes. However, mining is constrained by a third factor of production, 'land' or resource availability, which is not taken into account in the model. Hence the model consistently over-estimates the mining industry's supply, and hence employment, response. This has particularly severe implications for the regional estimates - the model's estimates that the largest beneficiaries of National Competition Policy are likely to be the mining regions of central Queensland and Western Australia must, therefore, be regarded with some scepticism.

This leads to a final "reality check".

On the positive side, it must be considered likely that more competitive markets will result in productivity gains, and that these gains are likely to translate into higher national output. An output gain of 2.6% from major productivity gains to important infrastructure industries would not be inconceivable. At least as far as this estimate is concerned, the various qualifications to the model's analysis would appear to cancel out. Indeed, one would also expect some benefits for other macro-economic variables such as aggregate employment and the Consumer Price Index, which are held constant in the Commission's modelling work.

Similarly, the conclusions that this gain would be widely shared on a regional basis, but with significant divergences across regions, and that those divergences would be to the relative detriment of non-metropolitan areas, appear reasonable.

However, there are reasons to question the estimated extent and distribution of those changes. In particular, the estimated gains in output of mining products such as black coal (12%), non-ferrous ores (7%) and iron ore (4%), and their downstream industries of non-ferrous metal products (12%) and basic iron and steel (5%), must be considered suspect.

Along with the lack of any constraints arising from adjustment difficulties, this means that the modelling work is likely to result in an understatement of the relative advantage provided to the capital cities and a misallocation of the estimated effects across non-metropolitan regions.

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