Reforming Australia's infrastructure

Following is the edited text of a speech by Commission Chairman, Professor Allan Fels, to the National Infrastructure Summit, Melbourne, August 2002.

Over the past decade Australian governments have fundamentally reformed Australia's infrastructure services. The reforms have been wide ranging and affect almost all infrastructure facilities. Now the reforms are being reviewed.

Three of the main infrastructure industries for which the Commission has responsibilities are energy, telecommunications and airports. I will be discussing their regulation and the effect of this on investment in them.

A decade of reform

The backdrop to infrastructure reform is the reforms in the 1980s and 1990s which opened the economy and increased its exposure to international competition. Tariffs were progressively reduced, quotas wound back and the dollar floated. The traded goods sector was being exposed to greater competition, but the infrastructure services they relied on were uncompetitive by world standards. Electricity, gas, transport and other business inputs were provided by public utilities which remained sheltered from international and domestic competition. These businesses typically compared poorly with international productivity and price benchmarks.

At the time there was a growing understanding of the needs of export and import competing businesses. Australian companies needed an efficient non-traded sector with lower prices to compete effectively in the international economy. Governments responded by introducing various structural and regulatory reforms.

The structural reforms vertically separated contestable from non-contestable services in the electricity, gas and rail industries. They also horizontally separated the companies into competing players. In electricity, for example, generation and retail were separated from the natural monopoly lines businesses (transmission and distribution), and new generation and retail companies were created to compete with one another in the newly formed national electricity market (NEM).

The regulatory reforms introduced new measures to address market power in the provision of non-contestable services such as electricity and gas transmission, interstate railway track and certain telecommunications services. Governments gave the Commission responsibility for implementing many of these regulatory measures.

The reforms were generally aimed at breaking up integrated government-owned utilities to increase competition between service providers, but also to effectively regulate when such competition was not possible.

The reforms have produced some useful outcomes, but fall short in, for example, the following ways.

- The advantages of incumbency together with natural monopoly conditions mean that the likes of Telstra and Australia Post remain dominant players in some markets.
- For electricity, structural and demand-side reforms are incomplete leaving large generation companies with significant market power in some circumstances.
- Continued government ownership can leave a conflict of interest for governments as business owners on the one hand and representatives of consumers on the other.
- Interstate competition in energy has taken off more slowly than desirable.

Future directions

Six reviews directly relevant to infrastructure services are now underway or have recently been completed. There is the COAG review of energy markets (chaired by the Hon. Warwick Parer), the Productivity Commission reviews of telecommunications, airports, the Prices Surveillance Act and the National Access Regime. And the review of the Trade Practices Act.

I would like to discuss the airports, energy and telecommunications reviews. I will also discuss one of the issues raised in some submissions, the impact of regulation on new investment.

Airports

The Productivity Commission's report on price regulation of airport services was released in May 2002 along with the government's response to it. The context of the review was privatisation of Melbourne, Brisbane, Perth and some smaller airports in 1997 and 1998, the (then) imminent sale of Sydney airport, and the history of imposing CPI minus X caps on airports.

The Productivity Commission concluded, and I think everyone agrees, that the largest airports in Australia have considerable market power. I can think of few areas where infrastructure owners have more market power.

On the supply side airports generally face limited direct competition. None of Australia's cities has more than one airport capable of landing large aircraft and various factors limit the scope for new entry. Environmental concerns associated with new airports, economies of scale and the lumpy and sunk nature of airport investments all work as barriers to entry.

On the demand side there is no real substitutability between destinations. There isn't much opportunity for shopping around when you are trying to land in or depart from a particular destination. Landing in Melbourne, for example, is of little use for people who want to travel to Sydney. Similarly, in a large country like Australia there is only limited substitutability between transport modes. Driving is simply not an option for most business travellers.

Accordingly, economic regulation of airports here and overseas has been seen as an important part of the privatisation process. Major airports are price regulated in all developed countries except for New Zealand. Even that seems about to change. The New Zealand Government has just released a detailed New Zealand Commerce Commission report, which recommends re-introducing price controls at Auckland and possibly Wellington airports.[11]

The Productivity Commission was more sanguine on this topic. It saw various factors that could restrain price rises, including the threat of re-imposition of price controls and the incentive airports have to maximise revenues from non-aeronautical services. The argument is that if airport landing charges go up then airline ticket prices go up leaving fewer passengers and in turn lower spending on retail, car parks and the like. Since these non-aeronautical services are an important source of profit the airport operators might hold back on increases in landing charges.

Now we have a chance to look at the actual outcomes. Price caps were removed from 1 July this year and landing charges at larger airports are going up by 40–130 per cent, with greater increases at some smaller airports. The airport operators are also increasing other charges such as taxi fees, car parking rates and check-in counter rentals. The Commission is in no way surprised by this. It is entirely consistent with the outcomes we predicted in our submissions.

Access to the Sydney airport domestic terminal, formerly operated by Ansett but more recently sold to Sydney airport, has recently emerged as a significant matter that is best considered as two issues.

New entrant access

Access to appropriate terminal space is a prerequisite for operating a passenger airline. Any agreement between Sydney airport and the incumbent airlines to tie up available gates at the Ansett terminal will create a significant hurdle to new entry. I have said that any such agreement may breach the Trade Practices Act. The Commission will monitor any developments closely.

Access terms and conditions

Qantas has a long-term lease for its domestic terminal site and the maintenance facilities adjacent to the site. The leases were locked in well before privatisation on favourable terms and conditions. If necessary Qantas can extend its existing terminal, using sites currently taken up by its maintenance facilities. In contrast Virgin Blue and any future new entrants must rely on Sydney airport to provide access on reasonable terms and conditions. High terminal access prices will affect their ability to compete effectively against Qantas. The government has said that it will re-impose price controls if there is evidence that 'airport operators were abusing their market power by unjustifiably raising prices'. I encourage it to monitor developments and intervene if necessary.

Energy markets

A stalling reform process

Despite the almost inevitable emphasis on institutional arrangements the big issues in energy reform are other matters. They include getting more interstate competition, industry structure, questions about public and private ownership, questions about retail contestability, and different arrangements in different states. These reforms are needed to increase competition in the wholesale market for electricity and address concerns about the frequency and magnitude of price spikes.

[11] New Zealand Commerce Commission, *Part IV inquiry into airfield activities at Auckland, Wellington and Christchurch international airports*, released 6 August 2002.

So far we have established national markets for electricity, but have not established the conditions for their effective operation.

In some cases generators have considerable market power. We need to increase the number of competing generators by encouraging new entry or structural reforms, or by increasing interstate competition.

Another way to address the market power of generators is through market design measures such as re-bidding rules. The National Electricity Code Administrator (NECA) is concerned about the practice of economic withholding,[12] and has proposed measures to limit the scope for such practices.

The Commission considers that such measures are a poor substitute for the structural and other reforms I just mentioned. But we may need to resort to rebidding rules and other changes to the rules governing the operation of the wholesale market if governments are not prepared to undertake those more fundamental reforms.

NECA's proposals could go some way to addressing the rebidding problem. However, the Commission is concerned that the proposals would create a significant additional cost burden for participants in the market and could create greater uncertainty for them and potentially even deter investment. The challenge is to design rules that are effective without creating new problems. The Commission is currently assessing NECA's proposals (for authorisation purposes). We recently released a draft determination and are now seeking submissions.

Market power problems in the electricity market are compounded by a lack of demand-side responses to high prices. Until the move to full retail contestability is completed and interval meters[13] are introduced, customers will not be in a position to respond to price signals in the market and adjust their consumption patterns. I encourage governments to meet their commitment to give consumers choice of supplier. This is happening at varying rates. New South Wales and Victoria have implemented full retail contestability. South Australia has committed to doing so next year. Queensland is currently opposed to contestability for retail customers.

The link between competition law and regulatory policy

Among other things it has been suggested that we should have a single national energy regulator. What could be simpler? Well, there are a few things.

Most of the proposals for a national regulator intend to keep separate state regulation, which I support. I have no problems with that, but it would not be a single national regulator. You would have a national regulator, state regulators and the Commission.

And there is the Trade Practices Act. No one has suggested you would not have a competition agency making decisions about mergers, collusive behaviour and anti-competitive agreements and issues of market power through predatory behaviour and the like. The competition agency would continue to do that.

Some matters would need the competition agency because the energy industry is not going to be exempt from the Trade Practices Act. The combination would be more complicated in some ways than now.

A good indication of the complex interplay of Trade Practices Act issues, and access and regulatory issues, is given by the content sharing agreement between Foxtel and Optus in pay television which the Commission is considering. This is not just about pay television. It has far reaching implications for telephone and broadband competition. It has a mixture of Trade Practices matters. There are issues about anti-competitive agreements, access and changing the law. The Commission considers the original proposal is essentially anti-competitive, but Foxtel and Optus have submitted a proposal that uses access and other regulatory sticks to overcome our concerns. If there were a separate telecommunications regulator from the Commission, the possible resolution of the matter by these means would be extremely complex and even more difficult. For energy there would be similar problems in separating the Trade Practices Act matters from the national energy regulatory scheme.

12 Economic withholding is having generators bid amounts of capacity in high price bands, knowing that this capacity will not be dispatched. The effect of this strategy can be to increase the spot price. The design of the spot market is a single price auction where the marginal generator sets the price for energy consumed in that period. Inelastic demand means that the marginal generator can be the price maker. So for a large generator it may be profit maximising to adopt a rebidding strategy in which not all capacity is utilised, but a higher price is received for the electricity that is dispatched. To successfully exercise market power the increased price for the electricity dispatched has to more than make up for the loss on the withheld capacity.

13 Interval meters measure power usage over short time periods, for example every five-minute interval over the day.

This is not to say that the current institutional arrangements cannot be improved. They can, but any changes need to be carefully considered.

I propose institutional arrangements based on three principles.

Reducing the number of regulators

At the moment eight agencies contribute to the economic regulation of the NEM. This diffuses responsibility for oversight of the energy market and makes the code change process complex and slow. As many functions as possible should be handled by a single national regulatory agency. At a minimum it means combining regulatory functions at a national level. Over the longer term consideration could be given to combining functions of the state regulators with a national regulator.

Regulatory institutions and the NEM

At the moment agencies have no say in some of the most fundamental issues, such as full retail contestability, retail price caps and so on. In any future arrangements it would seem sensible that the regulatory agency could contribute to outcomes, whether as final decisions or recommendations to governments.

Market development should be industry driven

One of the most important factors in the electricity market's success is ongoing strong investment in infrastructure, whether generation capacity, transmission or distribution. The best way of giving businesses the confidence needed to undertake such investment is to give them a greater say in the future of the industry.

I propose that industry be given responsibility for developing code change proposals. Of course the risk is that industry develops proposals that work in its interests but not those of the public. So any changes would, as now, need to be assessed for anti-competitive effect. This general approach has been adopted successfully in the PJM market in the US.[14]

14 The PJM (for Pennsylvania-New Jersey-Maryland) market services the states of Pennsylvania, New Jersey, Maryland, Delaware, West Virginia, Virginia and part of Ohio.

Telecommunications

Telecommunications is also the subject of a report by the Productivity Commission. The final report accepted the need for telecommunications specific regulatory provisions and recommended ways to improve current arrangements.

One of the Productivity Commission's main ideas was to narrow and limit the regulatory scheme, for example by tightening the declaration criteria in the telecommunications access regime (Part XIC of the Trade Practices Act) and some other measures. But the government was more concerned that the framework was not as effective as it could be in protecting the long-term interests of end users, particularly delays and costs associated with the current arrangements and the lack of transparency in Telstra's accounts reporting.

The government has announced measures to address these shortcomings.

The idea of the telecommunications access regime is to encourage commercial resolution of disputes in the first instance, but at the same time provide for arbitration of disputes if the negotiations fail. The problem is that many negotiations have failed and the parties have tended to turn to arbitration to resolve disputes.

The government has also announced measures to help parties reach negotiated rather than arbitrated outcomes. The Commission will be required to publish benchmark terms and conditions of access, including prices, for core services that are used by competitors such as Optus and AAPT. The benchmarks will help the parties negotiate.

For those that still need to resort to arbitration, the government has announced measures to speed up resolution of disputes by streamlining the appeals process. Currently, negotiations can be followed by arbitration and re-arbitration. Then there are extensive rights of appeal on the original arbitration and the re-arbitration to the tribunal, the Federal Court, the Full Federal Court and the High Court. This is a cumbersome and protracted process open to considerable gaming activity and delay. Under the changes announced by the government, arbitration decisions will still be subject to judicial review but not re-arbitration. But access undertakings will continue to be subject to full appeal rights.

The government has also announced measures to increase transparency. Accounting separation arrangements covering Telstra will be strengthened to provide a clearer separation between wholesale and retail areas and greater disclosure of Telstra's network and retail costs.

These are positive measures that should help promote competition in telecommunications markets and provide greater certainty for both Telstra and access seekers. But the market is still not fully competitive and recent developments such as the failure of OneTel and Telecom New Zealand's write down of its AAPT business have reinforced that.

When telecommunications competition was introduced it was widely expected that infrastructure alternatives to Telstra's local loop (such as wireless local loops) would be developed to act as viable competitive substitutes. This type of facilities-based competition has not yet materialised, and there is some concern that in the current capital constrained market such infrastructure investment will continue to be limited.

Even in long distance markets it is not clear that competition is fully effective. When new entrants have built competing infrastructure, prices have tended to fall. However, these decreases are yet to substantially reduce the gap between price and cost.

Telstra continues to dominate the market with more than 90 per cent of industry revenues.

New investment

We are conscious of concerns that regulatory error could lead to regulatory prices being too low, thus deterring investment by service providers. However, if we are going to debate this seriously we ought to first consider all relevant hypotheses. Then we ought to see if there is any empirical evidence. So far I have not seen any serious empirical evidence on the matter, including from any of the reports currently underway.

Let me first comment on regulatory errors. It seems clear to me that in any regulatory process there will be errors, but there is a further question as to whether there is any systematic bias in the distribution of errors around the mean. In other words you may acknowledge that there will be regulatory errors but they may be generally unbiased in the sense that they are evenly distributed between errors in favour of the regulated industry and errors against the legitimate interest of regulated industry and for the consumers. If I can put it in those slightly simplified terms you could have an even distribution of errors, a systematic bias of errors which work in favour of regulated industries, or a systematic bias of errors in favour (or more accurately apparent favour) of the consumer and against the regulated industry.

Some people in discussing this topic automatically assume that the errors are biased against the regulated industries. There is a great deal of contention to that effect by regulated businesses and the many people they hire to make their cases for them, for example, in submissions and at inquiries and hearings.

My own view, though, is that to the extent that there may be any error there is almost certainly a bias in errors in the opposite direction, that is, in favour of the regulated industries.

This view is reinforced by the economic literature. The Averch Johnson[15] line of literature starting in the early 60s, for example, started from the assumption that regulators are too generous, and then went on to discuss the implications of this for inefficiently high levels of investment. All of that literature combines quite well with the political science type literature by Bernstein,[16] Stigler,[17] Jordan[18] and others about the capture theory of regulators.

And then there is the literature on the asymmetry of information between regulated businesses and the regulator, also pointing in that direction.

There is also the conservatism of regulators highly anxious not to distort investment.

So I start from the position of being somewhat sceptical of the view that automatically assumes regulators will be biased against regulated businesses. It seems to me that these people have a great deal of difficulty in making that case given the regulatory experience around the world. To share their concerns and to be convinced by such a case I would need to see solid evidence. There is in fact no empirical evidence in Australia to support any such case.

That is not to say there will not be some errors if care is not taken. For the Commission's part it has

15 H Averch and L Johnson, 'Behaviour of the Firm under Regulatory Constraint', *American Economic Review*, 52, 1962, pp. 1052–69.

16 Bernstein, MH, *Regulating Business by Independent Commission*, Princeton U.P. 1955.

17 Stigler, GJ, 'The theory of Economic Regulation', *Bell Journal*, 2, 1971, pp. 3–21.

18 Jordan, WA, 'Producer Protection, Prior Market Structure and the Effects of Government Regulation', *Journal of Law and Economics*, 15, 1972, pp. 151–176.

been particularly interested in dealing with greenfield investment questions and the so called 'truncation problem'.

Put simply the truncation problem arises when the upside on risky investments is capped by the regulator, but companies are not protected from the downside. The outcome may give negative expected returns under regulation when the expected returns would be positive without regulation. In this scenario regulation has deterred socially worthwhile investment.

As you would know the Commission has put out a draft greenfields guideline addressing the issues that arise when there is new investment that is riskier than that in long-established public utility facilities. The draft guideline directly addresses the truncation problem as follows.

- It allows companies to retain any upside. Tariffs are set on an ex ante basis (i.e. based on expected results). If demand exceeds the projections the regulated companies retain all of the additional revenues and profits. The Commission uses conservative volume projections in its decisions, leaving considerable upside prospects for the regulated companies.
- It eliminates some of the downside risks faced by regulated companies. Service providers can seek a review of the tariffs if demand outcomes are worse than originally forecast. They can also capitalise losses in early years so they gain greater upside in later years when their market may have grown.

The evidence suggests that the current regulatory provisions and their application provide a solid base for future investment. The Commission's regulatory decisions provide earnings opportunities comparable to those elsewhere on the Australian sharemarket. Furthermore regulated businesses can outperform the Commission's benchmark cost of capital and retain the additional profits.

In Australia there is now much data on new investments and this consistently points to strong investment outcomes. For example:

- Investment in regulated electricity transmission lines is at historic highs. Transmission companies in the NEM plan to undertake around $3 billion in new investments over five years. This will add 40 to 50 per cent to the existing asset base.
- A report by BIS Shrapnel[19] showed substantial increases in investment in the telecommunications sector over the past few years. Investment by Telstra has consistently remained at around $4 billion annually. In addition, competing carriers have invested hundreds of millions in new telecommunications infrastructure.
- Transmission developments worth more than $800 million are under construction or committed, and further projects are proposed.

Investment has not been threatened or suffered in these industries as a result of regulation.

So far my comments on investment have focused on regulatory error. We also need to remember the starting point in all of this, namely that the infrastructure facilities we are talking about typically have natural monopoly characteristics, and that an unregulated monopolist will tend to under-invest. The monopolist's profit maximising position will give higher prices and lower output than competitive or regulated outcomes which in turn leads to lower capacity requirements and lower investment by the service provider.

An unregulated monopolist's behaviour is also likely to result in under-investment in downstream industries. Higher infrastructure charges translate directly into higher input costs for downstream industries which affects their competitiveness and ultimately their investment plans. The sensitivity of investment in energy intensive manufacturing and resource processing to delivered energy prices is an obvious example of this.

Conclusion

In the 1980s we recognised that a more open economy and greater exposure to international trade brought with it the need for more efficient and competitive provision of infrastructure services. Over the past decade or so we have made significant progress in achieving this, but in my view the reform process still has some way to go.

Issues emerging since airport price caps were removed and replaced by prices monitoring include landing charges increasing sharply. Also, airport users are concerned about domestic terminal access at Sydney airport. We need to monitor these developments and address them if necessary.

19 BIS Shrapnel, *Telecommunications Infrastructures in Australia, A Research Report,* prepared for the ACCC, July 2001.

There are changes that should be made in the energy sector. But the big issues in energy reform are not about institutional arrangements. They are energy pricing, industry structure and retail contestability.

In telecommunications the government has strengthened current regulatory arrangements in a way that should help to promote competition in the industry.

Concerns have been expressed that regulatory error can deter investment by service providers. The presumption seems to be that regulators are going to be biased against regulated businesses. I am sceptical about the reviews, reports and submissions that start from this position. It is supported by neither economic literature nor regulatory experience. To share their concerns and to be convinced by such a case I would need to see solid evidence. There is in fact no evidence of an empirical kind in Australia to support any such case.

The picture I have painted here is mixed. There has been some progress but continued regulatory pressure will be needed for some time.

Australian shipping and best regulatory practice

Following is a summary of a speech given by Commission Chairman, Professor Allan Fels, to Shipping Australia Limited, 14 August 2002.

Professor Fels first discussed the importance of competition. As an example of the value of competition law in the shipping industry he then referred to the Commission action against the Maritime Union of Australia (MUA).

The Commission alleged that the MUA and a number of senior officials breached s. 45DB—the section that deals with boycotts affecting trade or commerce.

We alleged they unlawfully hindered and prevented—or made the attempt to hinder and prevent—vessels from sailing unless the owners/charterers agreed to use the MUA to clean vessels' holds. In effect, the ship did not sail unless it was cleaned by MUA workers. Both shipowners and other workers were subject to harassment and coercion, in breach of s. 60. Workers who considered releasing ships were called 'dogs', 'slimes' and 'scabs'.

These allegations were upheld. The Federal Court ordered the MUA pay penalties and costs totalling $210 000 for breaching the secondary boycott provisions of the Trade Practices Act. The court also made declarations that the union's conduct constituted undue harassment and coercion in breach of the Act.

The fact is that successful action under Part IV of the Act broke a racket that worked to the disadvantage of both shippers and exporters.

Shipping Australia and Part X

There has been a long standing concern by government about the lack of competition in parts of the maritime industries, the consequent lack of efficiency of these industries and the subsequent adverse impact on the Australian economy. In a broad sense these are the issues that have provided the basis for the Commission's involvement in the monitoring and oversight of prices charged by the container stevedoring and harbour towage industries.

For the liner shipping industry, however, the Commission's role is a little more complex and there are various issues that arise as a result of the Commission's engagement with the Part X regime.

Australia's approach to regulating liner shipping services is similar to that adopted in many other developed countries. Part X provides the legislative framework for shipping companies and their exporting customers to negotiate the terms and conditions for providing liner shipping services. Essentially, Part X gives concessions to providers of liner shipping services to allow them to behave in ways that otherwise would not be permitted under the Act. Liner shipping companies are given limited exemptions from trade practices laws to enter into cooperative arrangements in providing shipping services to Australian importers and exporters. Specifically, exemption is provided by applying s. 45 (arrangements restricting dealings or affecting competition) and s. 47 (which deals with exclusive dealing—exemption is not provided for third line forcing).

Part X does not provide exemptions from s. 46 (misuse of market power). The arrangements permitted under Part X include joint provision of services and agreements on capacity, service levels and prices charged. In return for these exemptions, some obligations and requirements on lines have been imposed. These include requirements to negotiate with shipper bodies, and register