

Economic Regulation of Transport Facilities

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The Development of Regulation of 'Essential Facilities'

Assured property rights are crucial to promoting increased wealth. Open competition and private ownership gives firms considerable incentives to discover and meet demands at lowest cost.

Australian network businesses prior to National Competition Policy were usually protected from competition and were mainly government-owned. Governments sought to maintain control over these businesses' entire production chain, including those aspects that were highly vulnerable to competition, often to facilitate cross-subsidies or to influence general labour market policy.

These monopolies with legal protection from competition were characterized by inefficiencies, such as over-manning and inappropriately selected or located investments. The 1993 Hilmer Report and subsequently Australian governments recognised that sheltering activities from competition had impaired productivity.

Because rival facilities can no longer be excluded, the risk of price gouging is much reduced. Even so, access regimes like Part IIIA of the TPA were introduced.

Effects of Regulating 'Essential Facilities'

Access regimes are departures from the standard rules that promote efficiency by allowing owners to use their property as they please (as long as they do not harm others). Inevitably, forcing firms to offer access to their facilities also entails the prospect of regulated price and service levels more advantageous to the non-owner than could be obtained in a voluntary contract.

In the short term a price that is regulated below market levels means lower costs for users and higher demand for the services. Over the longer term regulated prices are likely to undermine incentives to maintain facilities and to modernise them.

These outcomes are exacerbated where rate regulation drives down revenues towards variable costs¹.

Also important is the effect on timing of investment. In this respect the Export and Infrastructure Taskforce concluded:

The search for optimality and precision in regulatory decision making has not only made the regulatory process less predictable than it should be, but has also added greatly to regulatory delay, hindering investment in infrastructure used by export industries.

Australia's Access Provisions

General Issues

Australia's requirement that owners of essential facilities must offer services to all comers, even competitors, amplifies developments in the US courts. In the US, a threshold test for government involvement specifies that an asset would be 'impractical to duplicate'.

Recognising that economic disincentives flow from requiring firms to relinquish their property rights, Hilmer was keen to narrowly define an 'essential facility'. Adopting a US perspective, the Report argued, 'Clearly, access to the facility should be essential, rather than merely convenient'.

Part IIIA of the TPA broadened this into 44G(3)(b), 'that it would be uneconomical for anyone to develop another facility to provide the service'. But, mindful of the dangers of regulatory overreach, production processes were excluded from regulatory control.

In *Unlocking the Infrastructure* Stephen King and Rodney Maddock discussed their concerns about the risks that can arise if the test of 'uneconomical to develop another facility' is not carefully applied. They argued that access should apply to services provided by facilities that are natural monopolies. They pointed to the situation where there are many facilities in competition but the market demand and prices may not be sufficiently high to make it possible for one more entrant to build a new facility and earn a positive return.

But this means that any of the 50 facilities operating in the industry could be liable for declaration. By applying the test only to 'another' facility, the Act opens the door to declaration of facilities even in those industries where competition is robust.²

The increased scope that this provided for regulatory intrusion was, however, welcomed by the NCC³. The NCC said:

Building and activating such (gas or electricity) networks is extremely expensive, but sending more gas or current around a network once it is operating is relatively cheap. Clearly, rather than making a competitor build a second network to compete with the existing network, it would make more economic sense in such situations to give the competitor access to the existing network.

Hence, the NCC at the outset proclaimed a willingness to intervene to require access to enable applicants to gain advantage by using an owner's facility in a way that leverages off marginal costs that are frequently much lower than average costs.

While taking advantage of lower marginal costs is standard business practice for a single entity to pursue internally (for example, firms normally take advantage of

their existing sales team in launching a new product line), it is an extraordinary intervention to require a firm to extend such cost-saving to unrelated entities, especially competitors.

The inspiration for assuming control over ‘essential facilities’ was where a firm is able to favour an affiliate over competitors in its management of the facility. Australian regulations have moved beyond that and focus on all facilities that might be construed to have some market power. But even with integrated facilities we should be wary of controls.

Inevitably, business firms have to take decisions about what products and services they produce in-house and which ones to buy-in.

Costs and risk management are the key features of the make or buy decision, particularly where, as with some manufacturing plant, firms have some form of final assembly into which the parts are brought together.

For products that are critically dependent on the various components being brought together precisely as required the supply will often need premium service and frequently a built-in redundancy of availability. With highly integrated production systems, product and transport is required to be available on demand. This is a characteristic of rail lines transporting bulk products to ports or power stations. The transport services being contracted often comprise more than a single trip, a series of journeys or the availability of track for such journeys. What is sought is a guarantee that the journeys can be undertaken and not necessarily at times when they were planned. In this respect the contract is for a form of chauffeur service dedicated to a single customer rather than for a scheduled bus service.

While it is often possible to arrange for this service to be bought-in, doing so often involves highly complex contracts where there are supply uncertainties. Frequently it is preferable to retain the supply in-house, which is practical with rail, shipping and elements of telecommunications.

Some types of production, especially those where a process is concerned, leave too many risks if they are based on independent contracting rather than under a management system. As the Infrastructure Task Force expressed it⁴,

The difficulties associated with physical coordination of complementary investments are, however, greatly complicated by disputes over the division of the gains from those investments. Historically, vertical integration between infrastructure providers and the activities that most rely on their services has been a way of avoiding these complications. ... Where vertical integration is impossible, or for wider policy reasons judged undesirable, coordination issues are likely to arise. Difficulties in organising all the parties required for complementary investments to

occur, and in securing agreement as to the sharing of the costs of needed capacity expansion, can paralyse the capacity expansion process—perpetuating bottlenecks that all parties would be better off resolving.

UK Railtrack is an example of how things can go wrong where de-integration is made mandatory. Gomez-Ibanez⁵ found that co-ordination a vertically unbundled British Rail proved too difficult due to rail track and trains being separately owned. The different interests in network enhancements to improve safety in the light of expanding usage led to inadequate investment, a deterioration in track quality and hence to disasters.

The Railtrack experience also illustrates the difficulties with contracting out aspects of supply where the capital assets are not easily compartmentalised. The fact is that rail and the rolling stock are jointly provided and forcing the track to be independent creates an economic incentive problem. Rolling stock owners have an incentive to economise on that asset even if this imposes excessive costs on the track owner. Contracting to avoid such inefficiencies can often lead to prohibitive complexities.

Whether a supplier chooses to integrate or contract to ensure delivery precisely as required, it will, if the cost of missing a desired delivery time is high, ensure considerable redundancy in the delivery system. That redundancy is not capacity ‘surplus to needs’ but represents a supply buffer to meet unknown eventualities. The supplier in that situation may also consider any form of sharing to provide risks too great for any level of compensation to mitigate.

Outcomes of Access Regulation in Gas

Regulators have frequently claimed (sometimes with the support of commissioned research) that the gas access regime has delivered considerable gains to the economy. Indeed citing industry developments the Chairman of the ACCC rejected the claim by the Productivity Commission that the ACCC regulation has ‘had a chilling effect’ on investment in the industry. However, no new pipeline has been built in the expectation that it would be regulated.

Adverse experiences with regulation doubtless influenced business strategies for the SEA Gas pipeline from Victoria to Adelaide. This was built with the intention of avoiding the regulatory costs and distortions of coverage. The partners inflexibly designed the capacity to prevent any availability for other users and therefore any case for declaration. As building-in some provision for increased demand is relatively inexpensive, this represents regulation forcing sub-optimal investment.

Outcomes of Access Regulation in Coal Terminals

Unsatisfactory outcomes are evident in the provision and expansion of coal port and rail facilities where users and owners are unrelated parties and the facilities are regulated.

Faced with an expansion of demand for coal in 2004 the BHP owned Hay Point facility saw an approval and commissioning of a 25 per cent increase in capacity in a little over 3 years.

By contrast, a comparable multiple-user regulated facility at Dalrymple Bay took an additional year, albeit with a larger planned capacity increase, as a result of argy-bargy and regulatory intercession over price.

Even greater delays are being experienced in expanding the facilities serving Port Waratah, the rail capacity to which has been increased following Commonwealth Government intervention. However the coal exporters' different agendas have held up funding for expansion of the multi-user open access terminal by the coal exporting facilities but now face transport bottlenecks.

Outcomes of Access Regulation in Private Railways

The Pilbara Rail Lines

Two Federal Court cases have been heard on private rail. In *Robe River* (1998) Kenny J. determined that access was not justified because the rail facility was part of an integrated production process 'by which a marketable commodity is created or manufactured' and thereby excluded from coverage.

In *BHP Billiton Iron Ore v NCC* (2006) Middleton J. considered this to be incorrect and ruled that access to the railway is not 'use of a production process' but rather it is a transport or conveyance service.

The rail lines in the Pilbara were developed through State Agreements which were seen as a package which would ensure that:

Through the resulting legal framework, major resources development would be recognised, encouraged, assisted and promoted. (Department of Resources Development 1997, p. 6)

However, although the companies agreed to carry people and freight of third parties, this was highly conditional (Hamersley agreed to do so only if this was possible 'without unduly prejudicing or interfering with its operations').

The State Government agreed to facilitate the removal of government barriers but placed no unusual call on government funds or facilities that might require some quid pro quo in return.

Competitive Provision of Rail Lines in the Pilbara

BHP and Rio Tinto both have integrated iron ore production facilities in the Pilbara. Each firm's rail lines are almost exclusively for their own use. And FMG is to build a rail line of its own (as well as seeking access to BHP's for some deposits).

This would mean three different lines serving the southern Pilbara area.

If none are made available to an unrelated party, in the clear absence of market power, this indicates that:

- the sort of facility employed in this line of business must be totally controlled by the integrated firm and that an unrelated entity operating on the tracks would create too many managerial difficulties;
- there is no spare capacity or those presently having unused capacity envisage it being required in future; or
- any apparently spare capacity may be needed for built-in redundancy purposes as an insurance against unplanned events.

In any event the track owners see the risk of contracting to transport for an unrelated entity as placing too great a risk on their integrated business.

The BHP/NCC process brought evidence from some very prominent economists. Important in this respect is the position of Professor Ordovery, who provided expert advice in the case of the Eastern Gas Pipeline to the degree that he endorsed the position of the regulatory authorities that a pipeline should be declared unless it is duplicated by a parallel line. Professor Ordovery's views on this matter are important because of his interventionist position on infrastructure sharing. He regarded the fact that more than one facility exists as 'trumping' theoretical views that there should only be a single facility and therefore argued against regulating the facilities.

Costs of Requiring Third Party Access to the Pilbara Rail Lines

Over the past ten years, Australia's iron ore exports have more than doubled.

With a doubling of output, a doubling of infrastructure investment is necessary. There may be some economies from sharing existing facilities but these are likely to be modest in such a magnitude of expansion.

In the context of the Pilbara BHP access dispute, three respected economic consultancies have sought to investigate the implications of regulators' requiring access. These are the Centre for International Economics (CIE), Charles River Associates (CRA) and Port Jackson Partners. All three have used conservative assumptions in estimating outcomes but have still arrived at large costs. All three see regulatory intrusion as bringing about delays in investment as a result of:

- the machinery of regulatory approvals,
- the diminished control of the investor over his investment expenditure and the need to engage in commercial negotiations outside the framework of an individual firm, and
- a higher risk premium required as a result of the increased uncertainty about when the investment can commence.

In addition, the uncertainty over future controls over the investment and the possibility that it might be opened up to parties that have not been engaged in the initial negotiations would add a further risk premium that is difficult to estimate.

CIE examined a deferment of six months in the commencement of an investment program which would eventually duplicate the estimated \$35 billion in capital investment in the Pilbara mines and associated transport and port facilities. The outcome involved a net loss over 20 years of \$20 billion.

CRA estimated a one year investment delay in annual spending of \$2 billion investment with a catch up in the following year would still mean a permanent loss of output of \$400 million.

In both these cases the losses were borne by the economy as a whole—that is by businesses and consumers that were not necessarily related to the iron ore miners. The cost is transmitted through the economy largely by the effect of a reduction in exports and the associated effect of a lower value of the Australian dollar.

Port Jackson Partners used a different approach which arrived at similar outcomes. They estimated the value of exports forgone from a one year delay at \$21 billion over a 20 year period.

The actual delays would far exceed the assumptions

that these models used. Indeed, if the investments were to await the finalisation of a Part IIIA dispute they would according to estimates made by the Queensland Mining Council take a minimum of three years and more likely five years⁶. But even the conservative assumptions used by the three consultancies indicate the huge penalty the economy pays for the sort of intrusive approach to property rights that key regulatory agencies are taking.

The Arbitrary Application of Part IIIA

Businesses will normally willingly share their facilities with all parties, including competitors, as long as they can profit from the undertaking.

Many raw material producers effectively have only one plant as a customer. This is the situation that confronts a great many small oil fields. Indeed, in WA the sole oil refinery, (owned by BP) serves 22 crude oil producing fields in the Perth Basin. The owners of these fields' options to the BP refinery services are developing their own refinery facility, or sending their crude to Singapore.

BP clearly and quite properly exploits its location to the full in terms of the charges it requires. Anything else would be inefficient. The wells close to its facility now account for around 15 per cent of the refinery throughput.

This is a variation of an 'essential' facility in its wider definition employed by some regulators (and access seekers). Certain choke points have been developed by businesses, whether in manufacturing facilities as traditionally defined or in transport and communications. For many such facilities it would certainly be 'uneconomical for anyone to provide another facility to provide the service'. Yet governments have correctly avoided intervention in the associated commercial conditions.

Decisions on which facilities are generically eligible for regulation are increasingly arbitrary. The concept of manufacturing, if it ever was neatly segregated from transport and communications is certainly not so today. The continuous nature of the iron ore mining-transport-preparation system was prominent in Justice Kenny's insights in *Robe vs Hamersley*.

Arbitrary though the concept of a production processes is, those framing essential facility laws have excluded it from their reach conscious of the massive and debilitating scope such laws would have if they encompassed manufacturing facilities across the economy.

Concluding Comments

Requiring owners to allow unrelated parties to make use of their assets is pregnant with risks to efficient investment. This applies to integrated facilities as well as those of a stand-alone type. Many businesses opt for vertical ownership for a variety of reasons, including to maintain control of a centrally important facet of production. In some cases there may be built-in redundancy to ensure that the facility is available on demand to combat unforeseen eventualities.

Australian law has made an exception for production processes in the ambit available for regulatory coverage. Such a distinction, commonly associated with manufacturing, if it ever was a meaningful means of distinguishing commercial activities, no longer is. Production functions are changing throughout industries and no clear demarcation of the different stages of these, particularly regarding manufacturing and services is either meaningful or appropriate.

Already there has been considerable economic damage in terms of delays to developments and costly legal challenges stemming from the considerable reach that Part IIIA brings to the regulatory framework of Australia. The illumination of these costs in the case of the Pilbara rail lines highlights the problem the regulatory framework is bringing specifically to one key industry.

The infrastructure developer in Australia today has no franchise protection and will always be vulnerable to competition. A regulatory model featuring price or profit control will prevent or, at the very best, delay major new investments. The policy basis must be based on an automatic expectation that any new investment, facility or otherwise should be unregulated and, in line with regulators' frequent assertions that markets are superior to regulatory agencies, that regulation should be removed as soon as more than one supply source is in place.

References

1. This was the case with rail regulation in the US for nearly a century until, in an early example of deregulation, stifling layer of price regulation were removed by the Staggers Act of 1980. The outcome was an upsurge in investment and productivity. In the past courts have sometimes attempted to set prices with farcical outcomes. Thus in *Pont Data v ASX* in 1991, Justice Wilcox set the price as being the marginal cost of connecting to the ASX system at \$100 per annum, compared to a price of \$1.45 million set by the Full Federal Court. Former ACCC Chairman Allan Fels had also called an approach that did not incorporate pricing principles (AFR, 7 April 1995).
2. King and Maddock, pages 79–80. 1997.
3. National Competition Council, *The National Access Regime, A Draft Guide to Part IIIA of the Trade Practices Act*, 26 August 1996
4. Australia's Export Infrastructure Taskforce, available at: <http://www.infrastructure.gov.au/pdf/Report.pdf>, page 18.
5. José A. Gómez-Ibáñez, 'Regulating Coordination: British Railroads' in *Regulating Infrastructure: Monopoly, Contracts, and Discretion*, The Harvard University Press, 2003.
6. Productivity Commission, 'Review of the National Access Regime. Position Paper', 2001, p. 399.

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