

## DOES ACCESS REGULATION DETER INVESTMENT?

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The issue of whether access regulation deters investment in network infrastructure cannot be considered without first examining the nature of network infrastructure and the meaning to be attributed to investment.

### *Investment as physical capital formation*

Investment in this context does not mean the purchase of equity securities in a firm owning or operating infrastructure. What is meant is whether access regulation deters (desirable) physical capital formation in network infrastructure assets such as gas pipelines, roads, telephone lines and electricity distribution networks.

### *Infrastructure assets are hybrid land/capital assets*

Network infrastructure consists of two kinds of assets: land or rights over land and physical infrastructure. A gas pipeline would be worthless if its owner had no legal authority to lay it over other people's lands or over public land. Usually, a network infrastructure owner is granted rights of way or easements by Acts of Parliament to establish his legal rights to lay his physical capital over land held by others. Sometimes a franchise fee may be demanded for this right, sometimes it may have been inherited from Acts establishing predecessor public utilities. Whether or not a price has been paid for, or a value set upon, these rights over land, they are conceptually distinct from any investment in the physical capital of the network infrastructure.

Just as analysing the effect of any regulation or tax upon real estate necessarily involves analysing separately the impact upon land and buildings, so it is with infrastructure – the impact on franchise rights and physical capital formation need to be assessed separately. A tax on buildings will deter investment and buildings and reduce the demand for land, thereby reducing land value. A tax on unimproved land value does not, however, affect adversely investment and buildings though it may result in a reduced market price for land now subject to tax.

### *Infrastructure investment is not possible without regulation*

Because all network infrastructure does require access itself over public or private lands, there is *never* “no regulation”. On the contrary, builders of gas pipelines, electricity transmission wires etc all need legislative authority or Crown licences to place their physical

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capital over land they do not own. Without regulation to guarantee access to private and public lands for infrastructure developers there would be *no* infrastructure investment at all - that was why railway promoters besieged the Parliament in London for Railway Acts in the 1840s (and were often opposed by ducal landholders). The difficulties experienced today by public utilities in Papua New Guinea which face landholder sabotage of their assets is an extreme example of why infrastructure investment requires regulation guaranteeing access. In this most basic (and usually forgotten) sense, the claim that access regulation deters investment is palpably absurd - infrastructure developers need access to sink their infrastructure physical capital into the ground and indeed seem to take it for granted. Though infrastructure developers refer to themselves in some submissions as “asset owners”, they should remember that they, in the absence of licences or franchises are trespassers, and that their property rights literally are overlaid on those of others.

No regulation is therefore never an option. Access rights over land have to be granted to infrastructure developers to overcome market failures inevitable in mass negotiation. But there is an implicit social contract which both infrastructure developers and infrastructure users need before anything can go ahead. In a sense, the whole issue of third party access over the infrastructure can be seen as part of the *quid pro quo* in a regulatory contract - “We, the Crown, will grant you, the infrastructure developer full and free access over public and private lands provided that you in turn will allow the public for whom we act to use the infrastructure on reasonable terms and conditions which do not allow you to extract monopoly rents.” Seen in this light, there will only be a disincentive effect on investment if the infrastructure developer counts the access rights given to him as having a negative value (ie he declines to apply for a franchise).

Those infrastructure owners who talk of the risks of regulation should be asked whether they wish to have *no* regulation. Do they wish to be sued as trespassers or have their infrastructure torn up by the thousands of landholders whose properties they lay their structures over? The logic of “no regulation” is negotiation logjam for infrastructure projects where, as in Papua New Guinea, any landholder can hold an infrastructure project to ransom. A situation of “no regulation” would deter investment more surely than a system of regulation which combines on the one hand free access to developers with a reasonable rate of return on invested capital. In this regard, the Position Paper at page 52 fails to understand what the “no regulation” option really is: it is reverting to the common law and allowing any landholder to block access for infrastructure developers across his property. For example, if I am content to use a mobile phone and do not care for pay TV, why should I as a landholder not seek to extract monopoly rents before allowing Telstra to run its lines across my land? It is not to the point for Telstra to argue it has an easement: that easement is the result of regulation in its favour - it is not a “no regulation” world if people are empowered by statute to come across my land without paying me for my consent.

Just as legislatures have usually been zealous to prevent recalcitrant landholders extracting monopoly rents from the community by threatening to block socially desirable infrastructure projects unless paid exorbitant charges for access, so the same considerations require that legislatures be equally zealous to prevent the extraction of monopoly rents by the infrastructure licensees. This mutuality of social obligation was perhaps more clearly seen when it was State legislatures which granted State semi-government authorities easements and rights of way at no cost on the basis that they were non profit public utilities. In addition,

some semi-government authorities, notably in water, were given rating powers to recoup towards their fixed capital costs some of the external benefits conferred in the form of added land values (yet externality seems strangely not to feature in the Productivity Commission's examination of optimal infrastructure regulation and pricing). Infrastructure owners cannot take the benefits of legislation overriding normal property rights in their favour while seeking to cavil at regulation preventing an abuse through monopoly rent seeking of the rights thereby conferred on them.

### *One-sided absence of regulation*

Naturally, the ideal form of licensing for a would-be network infrastructure owner (if legislatures so permit) is for him to gain an exclusive licence for no payment and be subject to no price or access controls - an ideal which has not infrequently been attained where the licence was originally granted to a State-owned public utility on the basis that it would operate as non-profit public utility and which was later commercialized or privatized.

The obvious scope for abusive use of such legislated monopoly positions inevitably leads to further regulation and was indeed the genesis for the Hilmer push to open up public utilities to competition.

### *Good regulation deters wasteful investment*

Ideally, "good" regulation does not deter *efficient* investment in physical capital formation though it should reduce or eliminate monopoly rents accruing as a result of strategic rights over land.

It should be emphasized that infrastructure investment is *not* always a "good thing" in and of itself. Indeed, "good" regulation *should* deter *wasteful* investment. One of the problems of unfettered competition in network infrastructure industries is that it can lead to wasteful competition to invest first - so as to be able to then practise predatory pricing against a new entrant.<sup>1</sup>

### *Pure laissez faire not sustainable*

One regulatory approach would be to grant licences to any and every would-be infrastructure provider. One objection to such a pure *laissez faire* approach is the obvious nuisance to - and resistance from - landholders faced with possibly many infrastructure developers expecting access to private lands. A more fundamental objection is that such a pure *laissez faire* approach unfortunately leads to unstable and wasteful competition. Once his capital is sunk, an incumbent has every reason to undercut any new entrant to deter entry. It can become a "war between long pockets" before there is inevitable industry rationalization. The history of railroads provides examples of such a wave of investment followed by forced mergers of bankrupted rivals.

It is interesting that APIA (representing pipeliners) essentially argues that their industry is competitive, that there are no certificates of necessity required before obtaining a long-

distance transmission pipeline licence and that therefore total deregulation would be optimal. (If Australia were as densely settled as the USA one suspects certificates of necessity would soon be mandatory - and we may yet see native title objections used to block pipeline access).

While one understands why people building pipelines would see a race to build more of them as an unalloyed good, it does not follow that the result is economically optimal. Just as unalloyed competition to sink oil wells in Texas in the 1920s resulted in negative externalities through premature depletion of oil fields which had to be countered through field unitization and regulation, a race to build pipelines can merely represent a race to “corner the market” - and lots of capital can be wasted in the race to stake a claim to future monopoly rents. The hope is that the first and biggest pipeline built will be in a position to practise predatory pricing against new entrants: the incentives are the same as those which led to the enormous waste of scarce capital expended by Telstra and Optus in their cabling war (which led dual cabling of some Sydney suburbs while other streets and regional Australia went unserved) and the proliferation of mobile phone towers (before Parliament stepped in to force some degree of co-location). More investment in pipelines is not necessarily an unambiguously “good thing” if it ends up as a form of rent dissipation. As Quiggin notes this sort of competition is wasteful and rent dissipation represents social waste.<sup>2</sup>

Not only does the APIA ignore the history and theory of wasteful competition in declining cost natural monopolies: it conveniently overlooks that its thesis depends on regulation of *other* market participants - regulation which allows access for pipeliners over public and private lands and regulation to force owners of metropolitan gas pipelines to open them up for inter-connection. Would the East Australian Gas Pipeline have ever been built if AGL were free to refuse access to its Sydney customer base?

Nor is it enough to say there should be no regulation of third party access if prices are non-discriminatory. A franchised metropolitan gas distributor may be quite happy to charge as much as the market will bear whether or not it is vertically integrated with its own transmission link.

### *Second best “optimal” regulation in the absence of externalities*

So the issue is not *whether* there will be regulation of infrastructure development: nor is the issue whether regulation hinders *some* investment or not. The real issue is *how* to regulate without impeding *efficient and desirable* (rather than duplicated) infrastructure investment: in effect, how to allow a return to physical capital investment without conferring monopoly rents on franchise holders - to reward real investment rather than licence holding.

Leaving to one side for the moment, the issue of whether a socially first-best policy of short run marginal cost (SRMC) pricing may be pursued through recouping external benefits conferred by infrastructure investment, the current debate is focussed on second-best regulation. Within this confined and incomplete paradigm, the issue is how does a society regulate so that efficient infrastructure investment is not deterred, avoiding on the one side, the opportunity to create privatized taxes or tribute collection in the form of monopoly rents and, on the other side, avoiding a wasteful over-investment of capital in duplicated sub-optimal infrastructure which, once spent, cannot be pulled out of the ground and re-deployed elsewhere in the economy.

### *Good regulation can make infrastructure investment attractive*

Third party access regulation offers a deal to investors - a steady income stream under a regulated monopoly versus a boom/bust revenue stream under unregulated cut-throat monopoly competition (with wasteful stranded investment). As United Energy remarked in its press release of 25 June 2001 to the Australian Stock Exchange “In these uncertain economic times there are clear benefits to having a portfolio of businesses which includes the ownership and management of regulated network assets with predictable cash flows”.

Just as it is no bad thing for regulation to deter duplicated investment, it is no bad thing for regulation substitute a steady level income stream to investors in physical infrastructure assets for a boom/bust cycle which would see insolvency and supply failures. Would people wish to see a One-Tel collapse with Telstra or their electricity being cut off because of a distributor’s financial failure while a receiver or liquidator finds a buyer?

Because, in the absence of a State franchise monopoly, private infrastructure is rarely fully vertically integrated, private infrastructure owners need access to each other’s systems. Good regulation fosters infrastructure investment by guaranteeing the necessary access and removing the risk of arbitrary inter-connect charges or terminations. In an unregulated market, Telstra would have destroyed Optus before a penny was spent on its infrastructure investment by making it perfectly plain that inter-connection would be either refused or provided at a usurious cost. The fact that Telstra and Optus have argued so bitterly on this subject highlights the need for competing infrastructure suppliers to have access to each other’s systems if investment is to proceed.

### *Good regulation promotes upstream and downstream investment*

It is a general theme in the evidence presented to the Commission on behalf of infrastructure owners that the crucial issue is to avoid disincentives *to infrastructure investment*. One can agree to that proposition but it is a far cry to then argue that monopoly rents should be allowed as the price of that investment and security of infrastructure services. If the price of attracting capital into infrastructure investment is the destruction of profitability and investment in downstream or upstream industries the price is too high: society would be better served by revoking private utility franchises and floating public loans at bond rates to build the infrastructure at public expense.

It is precisely by removing monopoly rents that good regulation promotes upstream and downstream investment. As Harold Hotelling asked in the 1930s, what is the point of having investment in social infrastructure such as railways if they are to be priced in such a fashion as to ruin the industry of the country they were built to serve?

### *Bad regulation and investment distortions*

While “good” regulation can restrain wasteful competition and duplication of infrastructure, “bad” regulation can either -

- promote wasteful over-investment and cost padding, or
- deter investment and maintenance.

Wasteful over-investment under bad regulation can occur even in the absence of system duplication. As Laffont and Tirole note, old-style rate of return regulation is analogous to Pentagon cost-plus contracts and has weak incentive effects towards efficiency - it is “low-powered.”<sup>3</sup> This lack of incentive shows up in the Averch-Johnson effect, “gold-plating” and labour cost padding and was one of the reasons State public utilities were thought to need reform (though one might wonder whether some higher level salaries have been padded in the outcome! ). This defect of simple rate of return regulation is widely recognized and is the reason why American regulators have often insisted on an additional prudent investment test or certificates of necessity for new infrastructure plus audit of costs paid to related parties.

On the other side, bad regulation can deter investment, maintenance and result in failure of supply or quality.<sup>4</sup> This can occur when a “high powered” incentive regulation system with capped prices and an emphasis on cost savings runs out of cost savings.

It is a curious paradox in the current debate over third party access that utilities are often arguing against rate of return regulation as being a form of price control which deters investment when they anticipate squeezing out more profit through cost savings under CPI minus X. Yet if anything, price caps under CPI minus X ( a high-powered form of “incentive regulation”) are liable to deter investment far more than rate of return regulation, once the easy cost savings are used up - there is, after all, only a finite number of workers Telstra can sack without going out of business. Doubtless, CPI minus X will be denounced in due course as being inimical to investment by those currently lauding it.

Note that if all operational expenditure is accepted and repairs and maintenance are allowed under regulation there should be no catastrophic supply failure: the deterrent effect would be on new investment. The point has to be faced that all price controls are a blunt instrument and price-cap “incentive” regulation can only be a short-term mode of regulation to squeeze out inherited fat.

*Does all revenue reducing regulation deter real investment?*

While there is always a trade off between high powered and low powered forms of utility regulation, it should be noted that not all regulation which reduces a utility’s revenues need deter investment. If a regulation exists *ex ante*, any regulation which reduces a utility’s revenues will be discounted for in a reduced franchise fee offered for the monopoly franchise: it will have no more effect on capital investment than a royalty paid by a mine lessee. The burden of the regulatory regime will be felt by the government in reduced bids for the franchises.

Unfortunately, governments have been accused by some utility owners of doing the reverse: encouraging high bids for utility franchises with covert, improper and legally non-binding suggestions that regulation would be loose so that monopoly rents could be kept by the successful bidders with impunity. If one effect of this review is to teach bidders for infrastructure assets that they ought not bid for licences to tax the public - and to teach

governments that they have no right to sell such licences - then such a disincentive effect on that sort of spurious “investment” will have been thoroughly worthwhile.

### *Evidence of infrastructure investment*

It is interesting to ask how one might test the theses that access regulation deters infrastructure investment (recognizing that this is not the only investment that matters). Prima facie, if *any* investment is occurring in a regulated infrastructure system, then the regulated return allowed must be above the investor’s cost of capital. If a critic argues in response that some investment is of a defensive nature (to protect the value of the existing system and maintain the franchise), it might still be noted that an implicit calculation has still been made in discounted cashflow terms that the return is worth it..

Another objection is that, though ordinary infrastructure investment may be proceeding, risky infrastructure extensions are deterred by the threat of access declaration or rate of return regulation. However, declaration and access regulation operate over a system and losses or super-normal profits can be pooled against the starting base regulated revenues. If there is a loss on the extension, that shows up as a reduced system-wide rate of return and allows price increases within the allowed rate of return. If there is a super-normal profit on the extension, it gets pooled with returns from the existing capital base and is only clawed back in a later regulatory review if the extension lifts the returns over the whole system past the allowed rate of return. That is as it should be - super-normal returns averaged over time over projects are evidence not of a return to capital but of rents attributable to the underlying franchise.

### *Access regulation analogous to resource rent tax*

The distinction between necessary returns to induce desirable physical capital investment and land rents has been made in the resource rent tax context, where there is a similar social problem. Governments grant licences to miners and want to induce investment, growth and exports but also want to ensure that land rents go to themselves as sovereign owners.

A solution to this has been the resource rent tax (RRT) approach, which seeks to allow investors to recoup investment plus a reasonable rate of return and only appropriates super-normal returns as rent to government.<sup>5</sup> While no tax system is ideal, and there are problems with ringfencing and incentive structures, the Federal Treasury has continued to think the effort to distinguish returns to capital investment and resource rents is a worthwhile exercise: one trusts the current review will take the same view on distinguishing between infrastructure investment and franchise monopoly rents.

Access regulation might be thought of as akin to system of taxing the profits of a network infrastructure owner and rebating the proceeds to users as a discount on their access charges. Whether such a tax has an adverse effect on physical capital formation in the form of infrastructure cannot be answered without considering whether the incidence of such a tax is upon the infrastructure land assets or the infrastructure capital assets. Just as a resource rent tax is argued to have no disincentive effects upon investment because physical capital investment is allowed a tax free internal rate of return, so a tax or regulation of infrastructure access which allows a market rate of return to funds employed in the construction of physical infrastructure capital should not deter investment. One can conceive of access regulation as a

form of RRT which rebates monopoly rents back to users.

*Bad regulation allows monopoly rents ....*

In the absence of proper access regulation, infrastructure owners would be allowed to secure monopoly rents. As Laffont and Tirole recognize,<sup>6</sup> monopoly rents are essentially taxes. Allowing them to arise is an evil in and of itself, as it amounts to licensing private taxes on trade and commerce, rather like ancient Roman or mediaeval tax farming. (Indeed, any price above short-run marginal cost operates as a tax and is only tolerated in infrastructure pricing where it is decided to finance fixed capital costs from user charges.)

*.... the prospect of monopoly rents induces inefficient infrastructure investment*

If monopoly rents are allowed to be captured by infrastructure investors, there can be an inefficient and wasteful race to build capacity ahead of demand because of a desire to lock out future competitors. Once established as an incumbent monopolist, there can then be a tendency not to invest if you can extract congestion or monopoly rents. The railway manias show how this process worked historically - a rush to invest, followed by excess capacity and rationalization which left the string incumbents free to charge “what the traffic would bear” (a US railroad expression in origin).

*..... monopoly rents deter upstream and downstream investment*

However, the resulting economic damage done by “charging what the market will bear” led in the USA to regulation in the interests of other industries and consumers. When railroads had the power of life and death over communities and industries, the dangers of unrestrained monopoly pricing became more than apparent.<sup>7</sup>

*.... or expropriates investment through “regulatory takings”*

Equally, one can fully agree that bad regulation can deter investment. Bad regulation may deny an infrastructure developer or operator his legitimate costs. Quite clearly no investment will proceed unless ex ante it is expected to be profitable. Further, ex ante expectations of profitability will be adversely affected by experiences of opportunistic adverse ex post regulations which damage the returns to invested capital. This is analogous to the standard economic arguments against price controls, eg rent controls in Sydney after World War II or in New York in more recent times.

However, it is still necessary to distinguish carefully between disincentives to physical capital formation versus a loss of the capitalized value of the asset purchased. For example, suppose an investor purchases a house and land under a tax regime where the total value of the property is taxed at 5%. Suppose the tax regime is then altered so that a tax of 10% is levied on the land value alone. Some investors who had bought properties with dilapidated houses and high land values would suffer from the change in the sense that the market value of the real estate parcel they had purchased would be less. Yet, the net effect of such a change would be to improve incentives to invest in physical capital formation even though some investors would face a drop in the net present value of capitalized land rents. Taking away monopoly rents which may have been bought at an inflated price in a flawed privatization



process of itself has nothing to do with incentives to invest in new physical infrastructure. What counts is the likely internal rate of return on new investment and whether *that* return is likely to be expropriated by adverse regulatory change.

In that regard, we note and agree with the profound hostility shown to DORC (depreciated optimized replacement cost) in the submissions put by infrastructure owners. They are right to resent the “O”– ex post optimization by regulators which results in stranded assets necessarily requires a risk premium in threshold rates of return for investment. But, equally, users are entitled to resent the “RC” – the use and abuse of replacement cost has been a means of disguising the extraction of monopoly rents from downstream and upstream infrastructure users.<sup>8</sup> As Professor David Johnstone has forcefully pointed out, the use of depreciated actual cost (DAC) avoids these injustices and economic inefficiencies from the point of view of both infrastructure owners and users.

The self-serving plea that DORC was necessary as a quid pro quo for bringing infrastructure owners under regulatory third party access regimes is legally and historically fallacious. Legally, all utilities whether publicly or privately owned, were subject to regulation in the interests of users whether through ministerial oversight and accountability to Parliament or ratepayers or through specific legislation. Indeed, the regulatory rate of return formula governing the Australian Gas Light Company under past New South Wales legislation was more stringent than the allowed rate of return now granted under current third party access regimes. From a legal point of view, the state Constitutions do not prohibit the taking of property on unjust terms, but more importantly, the Federal Constitutional prohibition against taking property on unjust terms would in no way have been violated if the use of depreciated actual cost had been mandated in Part III A of the Trade Practices Act. Just as tenant’s fixtures are commonly compensated for in private leasing contracts on the basis of depreciated actual cost, infrastructure owners would have no grounds for complaint if depreciated actual cost is now mandated in Part III A. The reality is that he who seeks equity must do equity—if infrastructure owners do not wish to be abused through opportunistic regulatory optimization they should be prepared to forswear the abuse of infrastructure users through replacement cost valuations well in excess of any costs ever really incurred.

#### *Short-run marginal cost pricing still the optimal policy*

*“Mr Banks: But you’re not accusing us of advocating marginal cost pricing”*

*(Transcript, Sydney, 6 June 2001, p 174)*

There seems to be some new “orthodoxy” in some quarters that marginal cost pricing is some form of economic heresy. This is not so. Marginal cost pricing remains the first best economic optimum and has been continually endorsed as such by leading economists. In particular, we note that William Vickrey, the 1996 Nobel Laureate in economics, has given a vigorous and comprehensive defence of the optimality of marginal cost pricing.<sup>9</sup> We also note that the Productivity Commission itself, in its April 2001 Draft report on Cost Recovery has accepted the optimality of and desirability of marginal cost pricing for government services.

A point which bears noting is that Ramsey pricing does not exorcise deadweight loss - Ramsey pricing is inherently second best and merely an attempt to reduce deadweight loss by levying “taxes” on infrastructure users according to inelasticity of demand for the service. But demand is *never* truly inelastic: there are adverse income and wealth effects as the price of infrastructure services rises while intermediate users may relocate production elsewhere. Hence the only truly efficient Ramsey taxes are those upon things *inelastic in supply* (such as the rating system on unimproved land values Sydney used to have to finance water reticulation - in effect, Sydney already had the makings of a perfect 2-part tariff with a non-distorting fixed charge).

As we have noted elsewhere, the abandonment of marginal cost pricing as an ideal rests on the assumption that there are no externalities in infrastructure provision and that the fixed capital costs necessary for infrastructure investment must be recouped solely through user charges. These assumptions are false: as Vickrey noted and Australia practised, it is perfectly feasible to finance the fixed costs of network infrastructure by rating the lands benefited.

However, we do not pursue this fundamental theoretical defect of Part III A here, but merely note that the economic optimum remains short run marginal cost pricing. The reality is that the current inquiry starts in the world of the second best and will have done well if it does not conclude in a world of the economic third best. In this regard, it is crucial that the deadweight losses caused by departure from short run marginal cost pricing not be exacerbated by the Commission’s blessing of the disguised extraction of monopoly rents under the guise of replacement cost valuations for utility infrastructure.

#### *Externality*

It is a remarkable feature of the Commission’s Position Paper that there is hardly any discussion of how infrastructure confers external benefits on others, notably landholders and treasuries (which is why historically they have often been involved - witness the Duke of Bridgewater’s canals and the colonial railways). A narrow focus on financing infrastructure solely through user charges in 2-party bargaining models obscures these vital externalities. The logic is simple. Infrastructure renders some locations more profitable places to conduct business from or more amenable places to live (eg wheat lands opened up by railways, town water put on). Since labour and capital are locationally mobile, these newly-created differential productivity advantages are capitalized in enhanced land values, providing a fund out of which to finance the infrastructure (the Union Pacific was financed by a Congressional land grant running beside the track).

Conversely, the extraction of monopoly rents by infrastructure owners reduces locational profitability, drives industry and jobs away, and diminishes land values and tax revenues - it amounts, as Hotelling recognized, to *de facto* withdrawal of infrastructure from serving the country it was built to serve. Non-exploitative access regimes are therefore fundamental to Australia’s economic development, productivity, living standards and international competitiveness.

#### *Access holidays*

The suggestion that infrastructure investment should be encouraged through access holidays

is fundamentally flawed in several respects.

First, an access holiday would allow an infrastructure owner free rein to extract monopoly rents through the period of the access holiday and would allow him an agreed real rate of return later on when the infrastructure came under the access regime. This would amount to a form of double dipping. If an access holiday is granted on the basis that the infrastructure will be able to recoup his investment within the period, then at the end of the period, the invested capital should be regarded as fully recouped and infrastructure priced at socially optimal short run marginal cost. We note that the patent analogy has been urged. When a patent expires, no payment is thereafter made for the costs of developing the invention: if the patent analogy is to be followed properly, infrastructure users should only be charged marginal cost operating expenditures after an access holiday.

Second, an access holiday necessarily involves allowing monopoly rents and the creation of excess burdens, discouraging investment downstream and upstream as well as in potentially linking infrastructure facilities.

Third, an access holiday would necessarily be project dependent. No arbitrary time period would be correct in any given case except by accident – investment costs including hurdle rates of return would be either under recovered or over recovered. Instead of a time-defined access holiday, it would make more sense (in this very sub-optimal scenario) to allow an access holiday only for the period until all capital costs had been recouped with a hurdle rate of return, in a manner analogous to a resource rent tax computation.

Fourth, access holidays are like tax holidays - and distortionary in a like manner. In both cases, there is an inherent incentive to close down the factory or the pipeline at the end of the holiday and to build a new (untaxed or unregulated) one - a wasteful premature scrapping of capital investment.

### *Conclusion*

We recognise that the Commission's review is operating very much in a second best economic world. Nonetheless, there is no economic justification for legitimating the extraction of monopoly rents by infrastructure owners. Allowing the extraction of monopoly rents, by looser regulation or access holidays, would not only damage investment and upstream and downstream industries but also in linking infrastructure projects. National competition policy was not intended to create a nation of monopolies and rentiers: it was meant to unlock strategic infrastructure and improve Australia's productivity, living standards and international competitiveness.

## ENDNOTES

1. See Geisst (2000) pp 34-35 on nineteenth century US railway infrastructure duplication under unfettered competition - new lines were started with a view to being bought out by the incumbent (who would recoup the cost from his retained monopoly).
2. Quiggin (1996) p 122
3. Laffont and Tirole (2000) pp 40-41
4. Laffont and Tirole (2000) p 54
5. See Garnaut and Clunies Ross (1975)
6. Laffont and Tirole (200) p 51
7. See Geisst (2000) pp 17-18
8. Geisst (2000) p 24 notes “Railroad management had been hostile to any suggestions that their profits were ‘excessive’ and devised ingenious schemes to mask their profitability. They falsified their accounts to make it appear that they had invested large sums of capital in physical improvements that were never actually performed.” American utility companies investing in Australian infrastructure must be bemused to find a country so ignorant of both economic theory and economic history - to be able to do legally in Australia what the New York legislature attempted to prohibit as profiteering in the 1850s must be a joy and a delight.
9. See the series of articles collected in Vickrey, William (1994) *Public Economics* edited by Arnott, Arrow and others.

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