



# **How best to secure efficient investment in, operation and use of natural gas pipelines?**

**A REPORT FOR THE AUSTRALIAN PIPELINES & GAS  
ASSOCIATION**

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# How best to secure efficient investment in, operation and use of natural gas pipelines?

## Executive summary

- 1 The access regime of the NGL is based on a hierarchy of objectives. Although the high-level objective is to promote economic efficiency in its various forms, this high-level objective is pursued by facilitating access to pipelines where access is required to promote competition in upstream or downstream markets.
- 2 The ACCC's *Inquiry into the East Coast Gas Market*<sup>1</sup> (ACCC Inquiry) rejects the hierarchy of objectives which underpins the access regime of the NGL. Rather in response to perceived evidence of monopoly pricing, (which in the ACCC's view results in upstream and downstream economic inefficiencies), the ACCC Inquiry argues that economic efficiency (in relation to gas pipelines) should be pursued not merely through the promotion of competition but also through the regulation of prices that are not economically efficient. The ACCC Inquiry notes that:

the problem with using competition as a proxy for efficiency is that competition and efficiency are not synonymous. That is, while competition may promote efficiency, significant efficiency improvements can still be achieved in upstream and downstream markets, without any change in competition in a related market, if a pipeline's market power is constrained.<sup>2</sup>
- 3 In this context the ACCC Inquiry recommends a new test that is designed to:

...address the market failure that has been observed in this Inquiry, which is monopoly pricing that gives rise to economic inefficiencies with little or no effect on the level of competition in dependent markets.<sup>3</sup>
- 4 The access provisions of the NGL and Part IIIA of the CCA share a similar hierarchy of objectives. The criteria for coverage under the NGL and the criteria for declaration under Part IIIA indicate that their purpose is to facilitate access to services where access is required to promote competition in upstream or downstream markets. However, both sets of criteria fall within a statute that has higher-level objectives. Although these higher-level objectives are framed differently between the statutes, each includes economic efficiency in investment, production and rate of use of the relevant services.
- 5 The 'deficiency' that the ACCC claims to have identified in the criteria for coverage is the same 'deficiency' that exists in all competition law. Competition law attempts to ensure that competition in the marketplace is not restricted in such a way as to reduce economic welfare. It does not attempt to regulate in response to perceived evidence of the exercise of market power and monopoly pricing. Rather, competition policy in Australia recognises the potential for imperfect market

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<sup>1</sup> ACCC, *Inquiry into the East Coast Gas Market*, April 2016.

<sup>2</sup> ACCC, *Inquiry into the East Coast Gas Market*, April 2016, p130.

<sup>3</sup> ACCC, *Inquiry into the East Coast Gas Market*, April 2016, p10.

outcomes, and the limitations of the ‘regulatory tools’ to address these imperfect market outcomes including improving economic efficiency in upstream and downstream markets. Compared with the aims of the policy advocated by the ACCC Inquiry, competition policy is far more modest.

- 6 The ACCC’s argument that the prices charged by gas pipeline operators should be regulated simply to promote economic efficiency raises important issues of principle that need to be addressed. These issues of principle were the focus of the debate in the 1930s over the Lange-Lerner model – an economic model that attempted to achieve economic equilibrium and optimal ‘Pareto efficiency’ through direct regulation of prices throughout the economy (with prices set to equal to marginal cost). Von Mises and Hayek were the victors in that debate. They showed that, in a world of constant change, it is highly unlikely that a regulator could ‘improve’ on market prices – even when market prices might reflect some market power. However, they showed that regulation could impose real costs – both the direct or administrative costs of regulation and the larger indirect costs or distortions that regulation of prices could create (including creating barriers to entry, investment and competition).
- 7 While the costs of regulation are not always evident, they can in turn lead to higher prices over time and in the extreme, detrimental impacts on the structure of the industry and economic efficiency. There are a number of ‘real-world’ examples of regulation imposing costs that more than exceed the perceived benefits.
- 8 While the Australian gas market is undergoing significant change, it is important that the coverage criteria under the NGL (and Part IIIA of the CCA) remain ‘fit for purpose.’ In particular, the criteria for coverage and for declaration should continue to focus on the promotion of competition in upstream or downstream markets. This is the way in which they are most likely to promote economic efficiency and least likely to detract from economic efficiency.
- 9 The ACCC’s argument is inconsistent with the considerable regulatory precedent in Australia relating to the objective of policy makers and regulators in imperfectly competitive markets. It has the potential to introduce significant risks and costs to the detriment of economic efficiency.

# 1 Introduction

10 The Australian Pipelines & Gas Association (APGA) has asked Frontier Economics for its response to Questions 2, 4, 5, 6, and 8 in the Consultation Paper, *Examination of the current test for the regulation of gas pipelines*, by Dr Michael Vertigan AC (the Consultation Paper).

11 These questions are:

- Is the ACCC's characterisation of why monopoly pricing is a problem accurate? Why/whynot?
- What do you believe is the objective of the existing coverage test?
- To what extent does the current interpretation of the existing coverage test fulfil the objective?
- Is the existing coverage test an effective constraint on pipeline operators' behaviour? Why/why not?
- Can the coverage criteria address the market failure identified by the ACCC – monopoly pricing that gives rise to economic inefficiencies with little or no effect on the level of competition in dependent markets? Why/why not?

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## 2 Ends and means of the current regime

13 Chapter 7 of the ACCC *Inquiry into the east coast gas market*<sup>4</sup> (the ACCC Inquiry) is headed “Strengthening the gas pipeline access regime will improve economic efficiency in the gas market and related markets.” The chapter purports to argue that the objective of the National Gas Law is economic efficiency; and, because the coverage criteria do not focus on economic efficiency, they are inadequate in addressing:

“the market failure that has been observed in this Inquiry, which is monopoly pricing that gives rise to economic inefficiencies with little or no effect on the level of competition in dependent markets<sup>5</sup>

14 The ACCC proposes a change in the coverage criteria to address the inefficiency caused by monopoly pricing. Specifically it recommends that:

- The COAG Energy Council should agree to replace the current test for the regulation of gas pipelines (the coverage criteria) in the NGL with a new test.
- This test would be triggered if the relevant Minister, having regard to the National Competition Council’s recommendation, is satisfied that:
  - the pipeline in question has substantial market power
  - it is likely that the pipeline will continue to have substantial market power in the medium term
  - coverage will or is likely to contribute to the achievement of the NGO.

15 Chapter 7 of the ACCC Inquiry breaks the nexus between competition and efficiency and argues that efficiency improvements can be made in upstream and downstream markets, without any change in competition in a related market, if a pipeline’s market power is constrained.<sup>6</sup> It proposes that regulation be expanded to embrace the direct regulation of gas pipeline prices that emerge in markets characterised by market power.

16 This is a significant departure from the ends and means of the current regime. These principles embrace regulation to the extent that regulation is needed to facilitate competition.

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<sup>4</sup> April 2016.

<sup>5</sup> ACCC, *Inquiry into the East Coast Gas Market*, April 2016, p10.

<sup>6</sup> ACCC, *Inquiry into the East Coast Gas Market*, April 2016, p130.

## 2.1 Ends and means of the National Gas Law

- 17 The gas access regime under the NGL emerged from the *Gas Pipeline Access (South Australia) Act 1997* and the National Third Party Access Code for Natural Gas Pipeline Systems (the Gas Code). The NGL is a schedule to to the *National Gas (South Australia) Act 2008*.
- 18 The objectives of the access regime can be understood by considering the history of the NGL and its relation to the statute to which it is a schedule. The statute is “An Act to establish a framework to enable third parties to gain access to certain natural gas pipeline services; and for other purposes”; and the pipeline coverage criteria are designed to facilitate access to pipelines in circumstances where access is required to promote competition in upstream or downstream markets. This is reflected in the language of the coverage criteria.
- 19 The pipeline coverage criteria are –
- a. that access (or increased access) to pipeline services provided by means of the pipeline would promote a material increase in competition in at least 1 market (whether or not in Australia), other than the market for the pipeline services provided by means of the pipeline;
  - b. that it would be uneconomic for anyone to develop another pipeline to provide the pipeline services provided by means of the pipeline;
  - c. that access (or increased access) to the pipeline services provided by means of the pipeline can be provided without undue risk to human health or safety;
  - d. that access (or increased access) to the pipeline services provided by means of the pipeline would not be contrary to the public interest.<sup>7</sup>
- 20 Although the coverage criteria are designed to facilitate access to pipelines where access is required to promote competition in upstream or downstream markets, the ultimate objective of the NGL is stated in section 23:
- The objective of this Law is to promote efficient investment in, and efficient operation and use of, natural gas services for the long term interests of consumers of natural gas with respect to price, quality, safety, reliability and security of supply of natural gas.

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<sup>7</sup> NGL, s 15.

21 That is, the access regime of the NGL is based on a hierarchy of objectives. The immediate objective of the access regime is to facilitate access to pipelines where access is required to promote competition in upstream or downstream markets.

22 The hierarchy of objectives means that the access regime only promotes economic efficiency through its promotion of competition. Chapter 7 of the ACCC Inquiry regards this as a problem. It states:

The hurdle posed by criterion (a) has, in effect, allowed pipeline operators to engage in monopoly pricing in a relatively unconstrained manner. This is operating to the detriment of economic efficiency and consumers more generally because monopoly pricing can give rise to lower than efficient levels of gas production and exploration investment, lower than efficient levels of gas use and investment in downstream markets, inefficient utilisation of pipelines and distortions in gas flows across the market.<sup>8</sup>

23 This argument indicates that the ACCC rejects the hierarchy of objectives which underpins the access regime of the NGL (as well as the National Access Regime and competition policy more broadly). The ACCC Inquiry notes that:

the problem with using competition as a proxy for efficiency is that competition and efficiency are not synonymous. That is, while competition may promote efficiency, significant efficiency improvements can still be achieved in upstream and downstream markets, without any change in competition in a related market, if a pipeline's market power is constrained.<sup>9</sup>

24 The ACCC argues that economic efficiency (in relation to gas pipelines) should be pursued not merely through the promotion of competition but also through the regulation of gas pipeline prices that are not economically efficient.

## 2.2 Ends and means of the CCA

25 The hierarchy of objectives underlying the access provisions of the NGL is somewhat similar to the hierarchy of objectives that underlies the competition provisions of the CCA. This is hardly surprising, because the criteria for coverage in the NGL are very similar to the criteria for declaration in Part IIIA of the CCA.

26 Under Part IIIA, the Council cannot recommend that a service be declared unless it is satisfied of all of the following matters:

- a. that access (or increased access) to the service would promote a material increase in competition in at least one market (whether or not in Australia), other than the market for the service;
- b. that it would be uneconomical for anyone to develop another facility to provide the service;

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<sup>8</sup> ACCC Inquiry, p 130.

<sup>9</sup> ACCC, *Inquiry into the East Coast Gas Market*, April 2016, p130.

- c. that the service is of national significance;
- d. [repealed]
- e. that access to the service is not already subject to an effective access regime;
- f. that access (or increased access) to the service would not be contrary to the public interest.<sup>10</sup>

27 As with the criteria for coverage under the NGL, the language of these criteria indicate that their purpose is to facilitate access to services where access is required to promote competition in upstream or downstream markets.

28 As with the criteria for coverage under the NGL, the criteria are subject to a higher-level purpose. This is s 44AA, which states that the objects of Part IIIA are to:

- a. promote the economically efficient operation of, use of and investment in the infrastructure by which services are provided [this language is similar to that of s 23 of the NGL] thereby promoting effective competition in upstream and downstream markets; and
- b. provide a framework and guiding principles to encourage a consistent approach to access regulation in each industry.

29 The CCA provides a still-higher level objective in its hierarchy of objectives. This top-level objective endeavours to embrace both the competition and the consumer-protection provisions of the Act. The top level object is:

The object of the CCA is to enhance the welfare of Australians through the promotion of competition and fair trading and provision for consumer protection.<sup>11</sup>

30 There is a long-standing debate throughout the policy, consumer and academic world as to the proper objective for competition policy. Although competition policy has always been influenced or motivated to some extent by populist sentiment against ‘unfair pricing’, at the heart of this has been whether the ultimate objective of competition policy should be economic efficiency (total surplus) or consumer welfare (consumer surplus).<sup>12</sup>

31 The overwhelming consensus of economists (and to some extent policy-makers and regulators<sup>13</sup>) has been that the immediate object of competition policy should

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<sup>10</sup> CCA, s 44G (2).

<sup>11</sup> CCA, s 2.

<sup>12</sup> See Massimo Motta, *Competition Policy, Theory and Practice* (Cambridge University Press) 2004, pp 17-30.

<sup>13</sup> The ACCC has not always been consistent on this issue and in the content of gas pipelines often view the promotion of consumer surplus equating to the promotion of economic efficiency. For example,

be the promotion or preservation of competition and the ultimate object of competition policy should be economic efficiency. This is reflected in Motta's definition of competition policy:

... the set of policies and laws which ensure that competition in the marketplace is not restricted in such a way as to reduce economic welfare.<sup>14</sup>

32 For this reason the Productivity Commission in its recent review of the National Access Regime notes:

Access regulation can address an enduring lack of effective competition... where access is required for third parties to compete effectively in dependent markets. **This is the only economic problem access regulation should address** [emphasis added].<sup>15</sup>

33 In my opinion, the access provisions of the NGL and Part IIIA of the CCA share a similar hierarchy of objectives. The criteria for coverage under the NGL and the criteria for declaration under Part IIIA indicate that their purpose is to facilitate access to services where access is required to promote competition in upstream or downstream markets. Competition in these dependent markets will in turn promote economic efficiency in investment, production and rate of use of the relevant services.

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the ACCC noted that "...we must seek alternative forms of regulation to address monopolistic pricing and rent transfers which contribute to inefficient economic outcomes." Mr Rod Sims, *Increasing efficiencies in supply chains, ABARES Outlook Conference*, 2 March 2016.

<sup>14</sup> Massimo Motta, *Competition Policy, Theory and Practice* (Cambridge University Press) 2004, p 30.

<sup>15</sup> Productivity Commission, *National Access Regime: Inquiry Report*, October 2013, p3, p71.

### 3 Ends and means of the ACCC proposal

34 The ACCC proposes that regulation of pipelines be removed from the arena of competition policy and become a form of regulation of prices that the regulatory authorities consider to be inefficient. It states:

As noted in section 7.2.1, the test for regulation currently embodied in the coverage criteria is not posing an effective constraint on the behaviour of pipeline operators, because it is not designed to be triggered by market power that results in monopoly pricing and economic inefficiencies but has little to no effect on competition in upstream or downstream markets.

To address this deficiency, the Inquiry recommends that the coverage criteria be replaced with a new test that would be triggered if the relevant Minister, having regard to the NCC's recommendation, is satisfied that:

- the pipeline in question has substantial market power
- it is likely that the pipeline will continue to have substantial market power in the medium term
- coverage will or is likely to contribute to the achievement of the NGO.<sup>16</sup>

35 The 'deficiency' that the ACCC claims to have identified in the criteria for coverage is the same 'deficiency' that exists in all competition law. Competition law attempts to ensure that competition in the marketplace is not restricted in such a way as to reduce economic welfare. It does not attempt to regulate prices merely because they reflect market power.<sup>17</sup>

36 Rather, competition policy in Australia recognises the potential for imperfect market outcomes, and the limitations of the 'regulatory tools' to address these imperfect market outcomes including improving economic efficiency in upstream and downstream markets.. Compared with the aims of the policy advocated by the ACCC Inquiry, competition policy is far more modest.<sup>18</sup>

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<sup>16</sup> ACCC Inquiry, p 138.

<sup>17</sup> As noted by the Productivity Commission, "for access to improve efficiency it is not sufficient for there to be an improvement in competition in any market — instead it must result in an improvement in competitive outcomes in a final consumer market. For example, access regulation might require providers to charge lower prices for access than they would have otherwise, without affecting outcomes in a final consumer market. In such a case, access regulation results in a transfer of income from service providers to users rather than an improvement in efficiency." Productivity Commission, National Access Regime: Inquiry Report, October 2013, p215.

<sup>18</sup> As noted by ACCC Chairman Rod Sims, "[Competition policy] must prevent firms with substantial market power from using that power to stifle competition and innovation. They must also, of course, allow firms with market power to compete on their merits, including using the advantages that come with their scale and experience. The balance can be a difficult one." ACCC, *Bringing more economic perspectives to competition policy & law* – Rod Sims speech, 7 November 2014.

37 The first criterion proposed by the ACCC is that pipeline in question has substantial market power. The phrase ‘substantial market power’ has been considered by courts in Australia when dealing with s 46 of the CCA. Following the decision of the High Court in *Queensland Wire Industries Pty. Ltd v The Broken Hill Proprietary Company Limited & Anor* (1989) ATPR 40-925 (*QWI*), our courts have construed the phrase ‘substantial power in a market’ in s 46 as equivalent to ‘substantial market power’. As the lead judgment of the High Court (per Mason CJ and Wilson J) stated:

After the market has been delimited, the question is whether the defendant has ‘a substantial degree of power’ within that market. Market power can be defined as the ability of a firm to raise prices above the supply cost without rivals taking away customers in due time, supply cost being the minimum cost an efficient firm would incur in producing the product.<sup>19</sup>

38 Since the decision of the High Court in *QWI*, the courts have considered a number of markets in which it has been alleged that a firm has substantial market power. These decisions indicate that firms may be found to have substantial market power in oligopolistic markets of the kind that in which Australian transmission pipelines in Australia characteristically operate. For example, in *ACCC v Australian Safeway stores Pty Limited (No 2)* (2002) APTR (Digest) 46-215 (*Safeway*), the Court found that Safeway had substantial market power in purchasing bread wholesale from plant bakeries.<sup>20</sup> This finding was made, even though the Court reported that there was little dispute that in the relevant period Safeway was purchasing between 21% and 25% of the total of plant baked bread in Victoria.<sup>21</sup> Nevertheless, the Court found that Safeway had substantial market power in the relevant market because its market share, combined with other factors such as high barriers to entry and excess capacity in the plant bakers, gave Safeway power to influence the terms on which it acquired bread from the plant bakers.

39 The second criterion proposed by the ACCC is that it is likely that the pipeline will continue to have substantial market power in the medium term. This criterion adds little or nothing to the first criterion. As the quotation above from *Queensland Wire* makes plain, the courts do not characterise a firm as having substantial market power if rivals can *in due time* take business away from a firm that chooses to raise prices above supply cost.

40 This was clear from the time of the decision of the Tribunal in *Re QCMA and Defiance Holdings* (1976) ATPR 40-012 (*QCMA*). In that decision, the Tribunal observed that the antithesis of competition is undue market power, in the sense of

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<sup>19</sup> *QWI* p 50,008.

<sup>20</sup> *Safeway*, para 1060.

<sup>21</sup> *Safeway*, para 1073.

the power to raise price and exclude entry.<sup>22</sup> It proceeded to say that the state of competition in a market is dependent on the structure of that market and then proposed its (by now classic) list of structural factors that should be scanned in any case. It then stated:

Of all these elements of market structure, no doubt the most important is (2), the condition of entry. For it is the ease with which firms may enter which establishes the possibilities of market concentration over time. And it is the threat of the entry of a new firm or a new plant into a market which operates as the ultimate regulator of competitive conduct.<sup>23</sup>

41 This passage has been adopted and frequently quoted by our courts when assessing market power in competition cases under the CCA. The issue of the appropriate time horizon in which to consider a substantial lessening of competition (in the context of s 50 of the competition provision) was considered by French J (as he then was) in *Australian Gas Light (CAN 052 167 405) v ACCC (No 3)* (2003) ATPR 41-966 (*AGL*). The Court found that barriers to entry into the activity of generation were low; and, if prices were to rise above long-run marginal cost, new generation capacity would be forthcoming. Justice French then suggested that, even if Loy Yang Power (LYP) had power to raise prices on hot summer days by withholding supply, such an exercise of market power is not the sort of market power that the competition provisions of the CCA are concerned with because any such exercise would be defeated in the longrun through entry. He stated:

The ACCC has made subsequent submissions about price spikes said to derive from economic withholding by LYP. I am prepared to accept that there are periods of high demand where a generator may opportunistically bid to increase the spot price. I do not accept that such inter-temporal market power reflects more than an intermittent phenomenon nor does it reflect a longrun phenomenon having regard to the possibilities of new entry through additional general capacity and the upgrade of interconnections between regions. It does not amount to an ongoing ability to price without constraint from competition.<sup>24</sup>

42 In my opinion, the second criterion proposed by the ACCC is redundant: the way in which the courts have construed the phrase 'substantial market power' has always been to require proof that it persist at least in the medium term.

43 The final criterion proposed by the ACCC is that coverage will or is likely to contribute to the achievement of the NGO. This amounts to the proposition that coverage is likely to promote economic efficiency. This third criterion proposed by the ACCC poses the same key question raised by the ACCC Inquiry: is the regulation of prices in oligopolistic markets likely to promote economic efficiency?

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<sup>22</sup> *QCMA*, p 17,246.

<sup>23</sup> *QCMA*, p 17,246.

<sup>24</sup> *AGL*, para 493.

44 The ACCC wishes to confine the debate over its proposal to the regulation of pipelines. It states:

The proposal to break this nexus [between the criteria for coverage under the NGL and the criteria for declaration under Part IIIA] should not be construed as a more fundamental criticism of Part IIIA. As the ACCC noted in its submission to the National Access Regime, Part IIIA has an important role to play in Australia's regulatory framework in cases where access is required to compete effectively in dependent markets and there is no industry specific regime in place. There is however, already an industry specific regime in place in gas with a clearly defined objective (that is, to promote efficient investment in, and efficient operation and use of, natural gas services for the long-term interest of consumers of natural gas). The Inquiry's observations on the coverage criteria and its recommendation on how the test for regulation should be changed are confined to this regime.<sup>25</sup>

45 In my opinion, the ACCC's argument that the prices charged by gas pipeline operators should be regulated simply to promote economic efficiency raises important issues of principle that need to be addressed. In particular, why is competition law confined to the set of policies and laws which ensure that competition in the marketplace is not restricted in such a way as to reduce economic welfare? If competition law leaves some firms with market power, why not regulate the prices of those firms to make sure they are more in line with competitive prices? Using the logic of the ACCC Inquiry, this could in turn lead to the promotion of economic efficiency in upstream and downstream markets for the benefit of consumers.

46 These are important issues of principle that have been the subject of debate among economists for more than a century. The ACCC cannot avoid such a debate by arguing that its proposal is confined to the regulation of gas pipelines.

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<sup>25</sup> ACCC Inquiry, p 134.

## 4 The issue of principle: is the regulation of prices charged by firms in oligopolistic markets likely to promote economic efficiency?

47 The economic theory relating perfect competition to economic efficiency shows that real-world markets that depart from perfect competition can also depart from economic efficiency in different ways. This theory is presented in standard textbooks of economics and is the basis for the Inquiry's examples.<sup>26</sup>

48 In the 1930s, this theory formed the basis of proposals by Oskar Lange that a socialist state could improve on the economic efficiency of capitalist market models by setting prices equal to marginal costs of production.<sup>27</sup> This proposal led to the development of the famous Lange-Lerner mechanism:

This [the Lange-Lerner mechanism] is a designation commonly used to denote a market-oriented socialism model devised by Lange, who later amended it after public discussion with Lerner. The first, fundamental part of Lange's study was published together with A. P. Lerner's critical remarks in the same issue of the *Review of Economic Studies*, while the second part appeared together with Lange's reply to Lerner [in] 1937. Later on, Lange made the changes necessary to publish his study (together with F. M. Taylor's essay) in book form (1938).<sup>28</sup>

49 The Lange-Lerner model of market socialism was famously criticised by von Mises and Hayek. Perhaps the most influential of these criticisms was Hayek's article "Economics and Knowledge".<sup>29</sup> Hayek pointed out that market economies are characterised by order that is more complex than is captured in the simple model of perfect competition. In particular, the efficiency properties of the model of perfect competition are equilibrium properties, whereas much of the value of market processes lies in the way they adapt to changes of different kinds.

50 Von Mises and Hayek argued that, in a world in which population, tastes of individuals, technology and resource endowments are changing, there was no way in which regulators can have the knowledge to 'improve' on the prices that the market produces. The lack of knowledge is not simply an asymmetry of knowledge between the business with market power and the regulator of the kind the Inquiry

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<sup>26</sup> ACCC Inquiry, p 130.

<sup>27</sup> Oskar Lange and F M Taylor, *On the Economic Theory of Socialism*, Edited by Benjamin E Lippincott (University of Minnesota Press, 1938).

<sup>28</sup> Tadeusz Kowalik, "Lange-Lerner mechanism", pp 129-131 of *The new Palgrave, a Dictionary of Economics*, edited by John Eatwell, Murray Milgate and Peter Newman, Vol 3 (Macmillan) 1987.

<sup>29</sup> *Economica*, (1937) N.S. Vol 4, pp 33-54.

refers to as a lack of transparency.<sup>30</sup> The problem is more fundamental as soon as one moves from the static equilibrium of a perfectly competitive model to the real world in which change is the norm.

51 The problem can be illustrated by reference to setting efficient prices – where efficient prices are defined in the timeless model of perfect competition, as equal to marginal costs. When it comes to identifying marginal costs in the real world, one is immediately confronted by the problem that these are not properly identified. This is not simply a question of long-run marginal cost versus short-run marginal cost –although even that distinction is based on a short-cut theoretical model that was developed by Alfred Marshall. Rather, there are major theoretical problems associated with identifying in which direction a price should be moved in order to promote economic efficiency. In the 1950s, the theory of the second best showed that, even if a regulator could identify marginal cost, it would not necessarily promote economic efficiency to push price in the direction of marginal cost.<sup>31</sup> More recently, Tim Bresnahan and other have shown that it is highly challenging to gain independent estimates of marginal cost.<sup>32</sup>

52 Since the 1930s, economists have learned much about the impossibility of identifying and regulating for efficient prices, and the likelihood of promoting competition and efficiency in upstream and downstream markets and the broader economy.

## 4.1 Development of competition policy, market reform and price regulation in Australia

53 Australian competition and regulatory policy has evolved with some appreciation of these debates. For example, competition and regulatory settings in Australia recognise the imperfect nature of many market outcomes, and the limitations of the ‘regulatory tools’ to address these imperfect market outcomes to improve economic efficiency in upstream and downstream markets.

54 In the 1970s, the newly-elected Labor government attempted, pursuant to an election promise attempted to control prices. However, its proposal to give it power to this do this was roundly rejected at a referendum on 8 December 1973.

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<sup>30</sup> ACCC Inquiry, p 135.

<sup>31</sup> R G Lipsey and K Lancaster, “The general theory of second best”, *Review of Economic Studies*, Vol 24 (1956) pp 11-32.

<sup>32</sup> See, for example Jonathan B Baker and Timothy F Bresnahan, “Empirical Methods of Identifying and Measuring Market Power”, *Antitrust Law Journal*, Vol 61 (1992) pp 1-16.

The result was a regime of price justification in the *Prices Justification Act 1973-1974* (Cth).<sup>33</sup>

55 Since the hubris of the 1970s, the Commonwealth has been more circumspect. For example, the Productivity Commission in its review of the NAR:

Whether access regulation results in an improvement in the efficiency of investment in infrastructure services and in dependent markets is a function of the ability of the access regime and regulators to only appropriate genuine monopoly rents. However, regulators have imperfect and incomplete information, and as such, some suboptimal decisions are unavoidable.<sup>34</sup>

56 The origin of much of Australia's present set of access regimes is the National Competition Policy Review of 1993 (the Hilmer Report). The Hilmer Report was written against the background of proposals to privatise what had, until that time, been publicly-owned and publicly-financed natural monopoly assets. The access recommendations of the Hilmer Report were driven by two principal objectives:

- a. to regulate the natural monopoly assets that had previously been regulated through their public ownership; and
- b. to ensure assets that had been financed by the public would not be the basis for exploitation of the public.

57 As the Hilmer Committee introduced its chapter on Access to "Essential Facilities":

This Chapter proposes the establishment of a new legal regime under which firms can be given a right of access to essential facilities when the provision of such a right meets certain public interest criteria. The regime is general in nature and has the flexibility to deal with access pricing and related issues in designated essential facilities irrespective of ownership. In designing the regime the Committee was conscious that almost all cases of essential facilities identified for the Committee were in the public sector because of the history of government ownership of infrastructure. While the public interest rationale for providing an access right is the same irrespective of ownership, the proposed regime takes account of the special considerations that can arise when the facility is owned by a State or Territory government.<sup>35</sup>

58 In the context of many vertically integrated infrastructure markets, the Hilmer Report noted the importance of ensuring an infrastructure owner was not able to use its position in a downstream or upstream market, to restrict access, in order to limit competition in those dependent markets. For this reason access regulation was to apply only where it will promote competition in upstream or downstream

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<sup>33</sup> Peter J Parson, "Prices Justification in Australia – the First Twenty Months", *Federal Law Review*, Vol 6 (1975) pp 367-396.

<sup>34</sup> Productivity Commission, *National Access Regime: Inquiry Report*, October 2013, p3.

<sup>35</sup> Hilmer Report, p 239.

markets. This is, where it is necessary to unlock a ‘bottleneck’ that is inhibiting competition in a related market.

#### 4.1.1 Energy market reform: Competition as a means to drive efficiency and innovation

59 Consistent with the modest objectives of competition policy more broadly, energy market reform in Australia has focused on increasing the role of markets in driving investment decisions and in allocating and pricing resources.<sup>36</sup> Competition in Australia’s energy markets has been seen as the tool to drive efficiency, productivity and innovation in our energy markets and ultimately as a means to improve Australia’s economic wellbeing.

60 This includes the introduction of competition into electricity generation and retail including customer choice in electricity supplier and ultimately the deregulation of retail pricing. As noted by IPART in the context of imperfectly competitive retail energy markets – many of which were slowly transitioning from historically non-contestable or monopoly supply markets – the imperfect nature of these regulatory tools means that:

“the focus for regulators, consumer groups and governments in this context [of an imperfectly competitive market] should be on promoting competitive market conditions rather than determining market outcomes... because regulation is less effective than competitive forces in driving efficiency.”<sup>37</sup>

61 While these energy market reforms have occurred within a broader context of reforms to many infrastructure sectors across Australia, they were driven by the need to move away from industries characterised by (primarily regulated) prices often set at prices below the efficient costs of service delivery. Continued regulation of these prices (in the context of where there is some competition or there is the potential for competition to emerge) risks undermining the benefits that can flow from competitive markets including efficient investment, risk allocation and innovation. As IPART noted:

“...a competitive market offers customers the best protection from higher than efficient prices in the short term. It can also deliver better customer outcomes in the long term, including better ‘value for money’ service through reduced costs and/or innovation...If [regulated] prices are set too close to estimates of the short-term efficient cost of supply...there is a risk that given the imperfect information available, setting prices to reflect the forecast efficient costs,

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<sup>36</sup> From the earliest days of the ‘microeconomic reform era’ of the 1990s – including the COAG decision in 1991 to establish a National Grid Management Council (NGMC) to coordinate the planning, operation and development of a competitive electricity market – competition in Australia’s energy markets has been seen as a tool to drive efficiency, productivity and innovation in our energy markets and ultimately as a means to improve Australia’s economic wellbeing.

<sup>37</sup> IPART, *Review of regulated retail prices and charges for electricity from 1 July 2013 to 30 June 2016*, Final Report, June 2013, p.9.

particularly in dynamic retail energy markets, creates the potential for price regulation to distort the competitive market.<sup>38</sup>

In my opinion, these are the same issues of principle that the ACCC is seeking to overturn – namely that in dynamic markets, a regulator (with its imperfect tools) is unlikely to be better able to identify and regulate for efficient prices. Regulating for efficient prices is a far more ambitious goal than regulating to prevent substantial distortions of competition.

## 5 The issue of evidence: is the regulation of prices charged by gas pipelines likely to promote economic efficiency?

### 5.1 The balancing act – recognising the costs and benefits of regulation

62 It is well accepted that markets do not always generate economically efficient outcomes. Indeed, there is a wealth of literature that explores the reasons why (and in what circumstances) market outcomes depart from textbook notions of economic efficiency. However, it is well accepted that workably competitive markets are most likely to promote economic efficiency compared to a regulated alternative.

63 The pressure to regulate markets in Australia has always existed. However, given the costs and benefits of regulation, the overwhelming consensus of economists (and to some extent policy-makers and regulators) has been that there is a need for caution in considering “proposals to address perceived problems with market power.”<sup>39</sup> This is for two reasons.

64 First, the presence of market power does not necessarily lead to community detriment (as the incentives of suppliers may be aligned with those of customers or price discrimination may ameliorate some of the welfare effects caused by prices

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<sup>38</sup> IPART, *Review of regulated retail prices and charges for electricity from 1 July 2013 to 30 June 2016*, Final Report, June 2013, p108-109.

<sup>39</sup> Productivity Commission, *Examining Barriers to More Efficient Gas Markets*, 2015.

being higher than efficient costs),<sup>40</sup> nor does a small number of participants in the market suffice as evidence of the exercise of market power.<sup>41</sup>

65 Second, the imperfect nature of the regulatory tools available to regulators means they necessarily impose costs and distortions on infrastructure providers and the community. These include:

- administrative and compliance costs (often referred to as ‘direct costs’)
- economic distortions (or ‘indirect costs’) including the adverse effects on investment in markets for infrastructure services, resulting from regulatory risk and uncertainty, regulatory error and asymmetric truncation (often referred to as ‘indirect costs’ of regulation).

66 Competition and regulatory policy in Australia has recognised that the presence of a market failure does not always justify government intervention — intervention has costs that may exceed the benefits — and both the costs and benefits need to be considered in any proposed regulatory solution.

67 As the Productivity Commission noted in a similar context to the ACCC Inquiry<sup>42</sup>

Just as markets can fail to generate economically efficient outcomes, so government intervention has its own costs, and may bring its own distortions. Addressing one dimension (for example, short-run marginal-cost pricing that encourages efficient use of existing assets) may distort other dimensions (for example, incentives to invest or to provide appropriate quality levels.<sup>43</sup>

68 However in the presence of uncertain benefits<sup>44</sup> and real costs of regulation, the balance and focus of competition and regulatory policy in Australia has therefore been on promoting competitive market conditions in dependent markets. As noted by the Productivity Commission in its review of the NAR:

**Access regulation should be applied sparingly** [emphasis added]...The scope of the Regime should be confined to ensure its use is limited to the exceptional cases where the benefits arising from increased competition in

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<sup>40</sup> For example, in its Inquiry *Economic Regulation of Airport Services*, the Productivity Commission noted that “While the ACCC has pointed to the possibility that some airports might have earned monopoly rents, it has not demonstrated this. The Commission also has not found evidence that airports have exercised their market power to the detriment of the community... While concluding that a number of major airports had high or moderate market power, the Commission also observed that there were a number of commercial disincentives or constraints on its use.” Productivity Commission, *Economic Regulation of Airport Services*, Inquiry Report, 14 December, 2011.

<sup>41</sup> Productivity Commission, National Access Regime: Inquiry Report, October 2013, p3, p72.

<sup>42</sup> In this case the ACCC was alleging market power and the need for regulatory change in the Australian airport sector.

<sup>43</sup> Productivity Commission, *Economic Regulation of Airport Services*, Inquiry Report, 14 December, 2011.

<sup>44</sup> Including the challenges resulting from regulators not having the knowledge and/or tools to ‘improve’ on the prices that the market produces.

dependent markets are likely to outweigh the costs of regulated third party access to infrastructure services.<sup>45</sup>

69 Similarly in considering the issue of whether criterion (a) should be recast as a test of efficiency rather than competition — recognising that competition is an imperfect proxy for efficiency, the Productivity Commission concluded that:

... such a test would be unworkable, costly and produce uncertainty for access seekers, service providers and decision makers...assessments of efficiency would be analytically complex (potentially requiring consideration of efficiency impacts in multiple dependent markets), difficult to substantiate, and would increase regulatory discretion, potentially resulting in more errors. **In short, although a competition test is an imperfect proxy for efficiency, the practical drawbacks of an efficiency test are likely to exceed the potential benefits of emphasising the overall gains to the community** [emphasis added].<sup>46</sup>

70 This view is in direct contrast to the assumption of the ACCC Inquiry that the benefits of regulation (through more efficient gas pipeline prices) will improve economic efficiency, and these benefits will exceed the costs associated with regulation.

## 5.2 The costs and benefits of gas pipeline regulation

71 The ACCC Inquiry outlines some of the potential benefits of its proposal. Chapter 7 of the Inquiry notes that:

If the proposed improvements are implemented, the Inquiry would expect the prices charged by pipeline operators to move closer towards the efficient cost of supply, which will, in turn, result in:

- lower delivered gas prices for customers that transport their own gas and other end-users of gas if retailers pass the benefits of lower charges through
- more efficient levels of gas production and investment in exploration
- more efficient levels of gas use and investment in downstream facilities that use gas
- more efficient utilisation of the transmission pipelines, less distortions in the flow of gas

across the market and gas flowing to where it is valued most highly.<sup>47</sup>

72 The Australian gas market is undergoing significant change and there is significant uncertainty relating to future market conditions — such as new sources of gas supply, including the cost and availability of gas from these sources, and end-

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<sup>45</sup> Productivity Commission, National Access Regime: Inquiry Report, October 2013, p3, p71.

<sup>46</sup> Productivity Commission, National Access Regime: Inquiry Report, October 2013, p3, p172.

<sup>47</sup> ACCC Inquiry, p136.

customer demand — all of which impact the demand for pipeline transportation services across the east coast.

73 The regulatory framework will significantly influence the incentives of pipeline operators to respond to these dynamic market conditions. For example, regulatory treatment of risks from investing in ‘spare or speculative’ pipeline capacity are likely to influence the incentive pipelines have to invest in potential new sources of demand.

74 The ACCC has previously noted that it (and other regulators) are well aware of the potential for access regulation to reduce investment incentives and distort investment decisions, and that there are measures to reduce these risks.<sup>48</sup> Similarly the ACCC Inquiry outlines a number of options that it considers will minimise the detriments impacts of regulation on incentives for gas pipeline investment:

The Inquiry is cognisant of the effect that regulation can have on investment, innovation and the other costs and risks that regulation can expose parties to. There are, however, already sufficient safeguards in the NGL and NGR that are designed to ameliorate these effects, including, amongst others, the 15-year no-coverage option for greenfields pipelines, the protection the NGL accords commercially negotiated contracts, the possibility of full or light handed regulation and the availability of merits review.<sup>49</sup>

75 However, the ACCC Inquiry provides little discussion of how its proposal, alongside the existing mechanisms in the NGL and NGR, are likely to impact the incentive for pipeline operators to invest and offer new services in response to the changing market dynamics— something the ACCC Inquiry notes has been important in encouraging “more dynamic pipeline flows and a greater degree of pipeline interconnection”<sup>50</sup> across the east coast gas market. The costs of access regulation are real and foreseeable.

76 In my opinion, a material regulatory intervention requires more detailed discussion and evidence of both the costs and benefits of the proposal. In my opinion, the ACCC has been far too optimistic about the possibility that regulation of pipeline prices can result in a net increase in economic efficiency. Economic efficiency is most likely to be promoted if the criteria continue to be focused on the promotion of competition in upstream or downstream markets. Economic efficiency is likely

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<sup>48</sup> ACCC submission to Productivity Commission, National Access Regime: Inquiry Report, August 2013.

<sup>49</sup> ACCC Inquiry, p12.

<sup>50</sup> The ACCC Inquiry notes that, “Pipeline operators have in general responded well to the changes underway, by offering more flexible services and carrying out major investments, most of which have been fully underwritten by medium- to long-term gas transportation agreements (GTAs) with shippers. These responses are providing for more dynamic pipeline flows and a greater degree of pipeline interconnection.” ACCC, *Inquiry into the East Coast Gas Market*, April 2016, p8.

to be harmed if the criteria are changed to allow regulators to seek to promote economic efficiency through the regulation of oligopolistic prices.



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