

Critical Issues in Regulation – From the Journals

Thinking Outside the Box, Michael McLure and Aldo Montesano, *Economic Record*, 95, 310, September 2019, pp. 301-311.

This paper is about the origins of what is often known as the 'Edgeworth box diagram' or the 'Edgeworth-Bowley box diagram'. This analytical device is one of the fundamental tools of intermediate microeconomic analysis, with familiar applications in expositing efficient allocation and trading opportunities. The authors of this paper, Michael McLure and Aldo Montesano, show that this familiar box diagram cannot be attributed to Francis Ysidro Edgeworth. In fact, they point out that it was devised by a contemporary of Edgeworth, Vilfredo Pareto. The authors argue that the published early history of the Edgeworth box diagram is misleading and present a new history of the respective contributions of Edgeworth and Pareto to the devising of this important tool.

The dimensions of the box are the total amounts of two goods that are available, and the content of the box comprises the indifference curves of two individuals with the origin for one individual being the southwest corner of the box and the origin for the other individual being the northeast corner. The tangencies of the individuals' indifference curves are the efficient allocations of the fixed amounts of the two goods between the two individuals, and the locus of these tangencies is often called the 'efficiency locus'. When the box is being used for the analysis of trading opportunities between the two individuals, the efficiency locus is interpreted as a 'contract curve' because the two individuals will end up somewhere on this locus after trading from an initial endowment.

Much of the exposition in this paper revolves around two diagrams (Figure 1 and Figure 2) drawn from Edgeworth's 1881 publication titled *Mathematical Psychics: An Essay on the Application of Mathematics to the Moral Sciences* (Edgeworth's Figure 1 and Figure 5, respectively). According to the authors, neither of these diagrams meets the criteria they deem necessary to constitute the properties of the Edgeworth box. The reasons for them reaching this belief are discussed in intricate detail in the paper.

The authors acknowledge that, in the 1970s, William Jaffé and Vincent Tarascio had already determined

that it was Pareto and not Edgeworth who had derived the Edgeworth box diagram. However, the authors of this paper argue that the 'analysis they [Jaffé and Tarascio] employed to arrive at that conclusion were either flawed or limited' (p. 310).

There are five sections in the paper: Introduction; Edgeworth's Figure 5 in 'Allocation' and 'Trade' Representations; Interpretations of Edgeworth's Figure 1; A History of the Derivation of Edgeworth Box; and Conclusion.

There are 30 items in the reference list, with year of publication ranging from 1719 to 2014. Economists cited include Maurice Allais, Luigi Amoroso, Arthur Bowley, John Chipman, John Creedy, Gérard Debreu, Maurice Dobb, Francis Ysidro Edgeworth, Irving Fisher, William Jaffé, Vilfredo Pareto, Herbert Scarf, Vincent Tarascio, and James L Weatherby Jr. A classic reference is Arthur Bowley's *The Mathematical Groundwork of Economics*, published in 1924.

An additional reference is to Hal Varian's *Intermediate Microeconomics* (Norton, New York, 4e, 1987). Varian exposit and applies 'The Edgeworth Box' beginning on page 496. Varian's footnote at the beginning of the section says that the 'Edgeworth box is named in honor of ... Edgeworth ... an economist who was one of the first to use this analytical tool'.

The article can be accessed by subscription to *Economic Record*.

Contents

From the Journals	1
Regulatory Decisions in Australia and New Zealand	8

The Roles of Energy Markets and Environmental Regulation in Reducing Coal-Fired Plant Profits and Electricity Sector Emissions

Joshua Linn and Kristen McCormack, *RAND Journal of Economics*, 50, 4, Winter 2019, pp. 733-767.

This paper is about the respective roles of energy markets and environmental regulation in reducing the profits of coal-fired power plants and reducing emissions from the operation of the electricity market. Between 2005 and 2015, United States (US) electricity industry emissions of nitrogen oxides and sulphur dioxide declined by two thirds. Further, many coal-fired power plants became unprofitable and were retired over these years. The authors claim that the literature has not identified the underlying causes of these changes. Using a model of US eastern interconnection, the authors find that electricity consumption and natural gas prices account for nearly all the coal-plant profitability declines and resulting retirements. In contrast, their model suggests that environmental regulations had little effect on these outcomes.

The authors identify two perspectives. One view is that market shocks have reduced both emissions and coal-fired plant profits, and that environmental regulation has reduced emissions substantially while having a relatively small effect on coal-plant profits. The other view is that environmental regulation is the primary driver of declines in emissions and coal-plant profits. Further, although the economics literature suggests that market forces have reduced coal-fired generation and profits on the margin, there is no direct evidence of the aggregate effects of market forces. Neither is there a direct comparison of market forces and environmental regulation.

The authors' computational model is applied to assess whether either view can be shown to be more correct. The model covers 3,500 fossil fuel-fired generation units in the eastern US electricity system. It consists of three phases: unit construction and retirement; pollution abatement; and hourly operation. The operational phase approximates dynamic operating constraints, unit availability and transmission congestion. The authors compare their model with a standard economic-dispatch model. They find that it reproduces more accurately observed changes in the extensive and intensive generation margins, fuel consumption, and emissions. Further, it matches 97 per cent of observed retirements that occurred by 2015.

The authors also find that, in their model, market shocks have larger effects than regulation on coal-fired plant profits. The consumption shock is about as important as the fuel-price shock, both of which are more important than the wind-generation shock. Combined, the market shocks explain 82 per

cent of the decline in nitrogen oxides emissions and 99 per cent of the decline in coal-fired plant profits. The consumption shock explains a large share of the overall reduction in coal-fired plant profits, albeit a smaller share than the fuel-price shock. The consumption shock reduces emissions 2.5 times more than does the fuel-price shock, suggesting that both shocks played important roles in reducing nitrogen oxide compliance costs and in causing coal-plant retirements. The importance of the natural gas price shock is observed to be consistent with the empirical literature.

The three market shocks are estimated to have reduced the costs of the Cross State Air Pollution Rule (CSAPR) by 86 per cent. Conditional on the market shocks, CSAPR and The Mercury and Air Toxics Standards (MATS) explain 20 per cent of retirements. The authors make several simplifying assumptions about CSAPR and MATS that, in their view, are likely to cause an overestimate of the costs of those regulations. Relaxing the assumptions would, in their view, strengthen the conclusions about the primacy of the market shocks in explaining retirements.

There are six sections in the paper: Introduction; Background (four subsections); Computational Model (six subsections); Scenarios (three subsections); Results (two subsections); and Conclusions. There is one Appendix.

There are 37 items in the reference list, with year of publication ranging from 2000 to 2018. Economists cited include Severin Borenstein, James Bushnell, Paul Joskow, Erin Mansur, Richard Schmalensee and Frank Wolak.

The article can be accessed by subscription to *RAND Journal of Economics*.

On Entry Cost Dynamics in Australia's National Electricity Market

Paul Simshauser and Joel Gilmore, *The Energy Journal*, 41, 1, 2020, pp. 259-287.

This paper is about whether a well-designed electricity market should be expected to deliver an efficient mix of technologies at least-cost. The authors, Paul Simshauser and Joel Gilmore, consider this question both in theory and in practice. While energy-market theories and energy-market modelling are based upon equilibrium analysis; electricity markets in practice can be 'off-equilibrium' for extended periods. Near-term spot and forward contract prices can and do fall well below, or substantially exceed, relevant entry-cost benchmarks and associated long-run equilibrium prices. However, given sufficient time, higher prices, on average or during certain periods, can create incentives for new-entrant plant which, in turn, has the effect of capping longer-dated average spot price

expectations at the estimated cost of the relevant new-entrant technologies.

The authors trace generalised new-entrant benchmarks and their relationship to spot-price outcomes in Australia's National Electricity Market (NEM) over the twenty-year period to 2018. Over this period the NEM evolved from coal to gas, and more recently to variable renewables plus firming, notionally provided by – or shadow priced at – the carrying cost of an Open Cycle Gas Turbine. This latest entry benchmark relies implicitly, but critically, on the gains from exchange in organised spot markets, using existing spare capacity. As aging coal plants exit, gains from exchange may gradually diminish with 'notional firming' increasingly and, in the authors' view, necessarily, being met by physical firming. At this point, the authors argue that the benchmark must once again move to a new-technology setting.

There are seven sections in the paper: Introduction; Entry Costs and the PF [project finance] Model (two subsections); Model Results (five subsections); NEM Fuel Prices: Coal and Natural Gas (two subsections); Entry Dynamics in the NEM 1999-2018; On the Stability of New Entrant Benchmarks (three subsections); and Policy Implications and Concluding Remarks. There is one Appendix.

There are 31 items in the reference list, with year of publication ranging from 1947 to 2019. Economists cited include Tom Berrie, Marcel Boiteux, Richard Green, Paul Joskow, David Newbery, Michael Pollitt, and Ralph Turvey. A classic reference is Tom Berrie's *Electricity Economics and Planning*, published in 1992.

The article can be accessed by subscription to *The Energy Journal*.

Effects of Privatization on Price and Labor Efficiency: The Swedish Electricity Distribution Sector, Erik Lundin, *The Energy Journal*, 41, 2, 2020, preprint.

This paper is about the effects on labour efficiency and price of privatising municipally owned Swedish electricity distribution networks in the early 2000s. In comparison to their synthetic counterparts, Erik Lundin finds that the acquired networks increased labour efficiency by on average 9 to 18 per cent during the nine years following privatisation, and that the effect on labour efficiency increased over time. By contrast, there was found to be no effect on price, meaning that the economically meaningful (productive) efficiency gains did not flow through to consumer prices. This finding was expected by the author since the regulatory mechanism primarily determined prices based on exogenous characteristics of each network.

Empirical results using a difference-in-differences (DiD) estimator largely confirm the results from the synthetic-control method, although the estimated efficiency gains are less pronounced and less precisely estimated. The author also notes that, since the standard error of the price effect is large, the results are consistent with a wide range of price changes.

In comparison with previous Swedish studies, this research points to potentially larger efficiency gains. For example, Subal Kumbhakar and Lennart Hjalmarsson's 1998 study found that labour efficiency was 12 to 17 per cent higher in private distributors relative to municipally owned distributors, depending on model specification. Although this is comparable to the average post-acquisition effect estimated in this study, labour costs in the acquired networks were about 40 per cent lower compared to the synthetic network nine years after privatisation. The author cautions that comparisons to Kumbhakar and Hjalmarsson should however be interpreted with care, since their identification relies on cross-sectional variation.

In comparison with international studies, the author observes that his estimated efficiency gains are not unusually large. For example, a 2001 study by Preetum Domah and Michael Pollitt estimated that labour productivity in England and Wales nearly doubled after the first eight years following privatisation. Consumers started to gain only about a decade after the privatisations. Further, a 2005 study of Latin American distributors by Antonio Estache and Martin Rossi, found that private businesses operating under price-cap regulation use about 60 per cent less labour for a given output than public businesses.

The author suggests that further research could be to disentangle the mechanisms driving the efficiency gains. The regulatory structure in place does not take into consideration economies of scope between various stages in the electricity supply chain. These economies provide the private operators with a cost advantage compared to municipally owned networks that generally do not engage in generation or regional transmission. Further, returns to scale is likely to be a contributing explanation, since several of the acquisitions involved bordering networks that were previously operated by each respective municipality.

Erik Lundin further suggests that it could be of interest to study whether private distributors attach less weight to quality of service than do public distributors.

There are five sections in the paper: Introduction: Institutional Background and Data (three subsections); Method (three subsections); Result (two subsections); and Conclusions. There are two appendices.

There are 25 items in the reference list, with year of publication ranging from 1962 to 2016. Economists cited include Harvey Averch, Sanford Berg, Leland Johnson, William Niskanen, Michael Pollitt, Andrei Shleifer and Jean Tirole. A classic reference is Harvey Averch and Leland Johnson's 'Behavior of the Firm under Regulatory Constraint' published in the *American Economic Review* in 1962.

This paper can be accessed by subscription to *The Energy Journal*.

Shock Value: Bill Smoothing and Energy Price Pass-Through, Catherine Hausman, *Journal of Industrial Economics*, 4 December 2019, pp. 242-278.

This paper is about predictability and stability of energy bills, particularly the avoidance of 'bill shock' and consideration of the role of gradualism. Energy prices are depicted as being: volatile; affecting every consumer and industry in the economy; and impacted by regulations including gas taxes and carbon pricing. The pass-through literature both in general and specific to energy focuses on what happens to prices at the margin. However, multi-part pricing is observed to be common in energy retail pricing. Catherine Hausman examines the retail natural-gas market, and shows that marginal prices exhibit full or nearly full pass-through, while, in contrast, fixed fees exhibit negative pass-through. This is consistent with the stated desire by utilities and regulators to prevent 'bill shock.' The author discusses the implications for estimation of pass-through and for proposed alternative pricing structures for regulated utilities.

Several implications emerge from the results on fixed fees. First, in settings with multi-part pricing, pass-through analysis should take into account the entire price structure, not just the marginal price. The incidence of a tax, for instance, will depend not just on how volumetric prices change, but also on whether fixed fees adjust. Second, the natural gas industry shows evidence of a form of price stickiness (in average prices rather than marginal prices) that is consistent with the previous literature on consumer antagonism. Third, consistent with anecdotal evidence, price regulators, consumers and businesses appear to value predictability of bill totals. Proposals to reform utility pricing by, for instance, tying marginal prices more tightly to marginal cost (as in real-time pricing proposals for the electricity industry) are likely to face resistance if bill volatility increases. On the other hand, proposals to reduce or eliminate volumetric mark-ups (and increase fixed fees accordingly) could take into account the benefit brought about by reduced volatility (from quantity shocks) that this would imply for bill totals.

There are five sections in the paper: Introduction; Background (three subsections); Model; Empirical Analysis (six subsections); and Conclusion.

There are 70 items in the reference list, with year of publication ranging from 1974 to 2019. Economists cited include Tim Besley, James C Bonbright, Severin Borenstein, James Bushnell, Michael Grubb, Paul Joskow, Nancy Rose and Edward Zajac.

The article can be accessed by subscription to the *Journal of Industrial Economics*.

Factors Contributing to Energy-related Financial Stress in Australia, Rohan Best and Paul J Burke, *Economic Record*, 95, 311, December 2019, pp. 462-479.

This paper is about the factors that contribute to energy-related financial stress in Australia. The authors view financial stress as a key economic challenge facing a minority of households. The authors use a number of measures of energy-related financial stress in relation to households' use of electricity and natural gas. There is also a focus on the role of net wealth. The results are based on data collected by the Australian Bureau of Statistics in surveys carried out in 2012 and 2015-16. A logit model is applied to these data. The results from the econometric analysis (section 2) are displayed in tables and charts, and described in words.

The key results of this study are that: renters are at greater risk of energy-related stress than are non-renters; mortgage holders are at greater risk than outright home owners; households with energy-using medical equipment are at greater risk; some categories of welfare recipients are at greater risk; and having solar panels reduces difficulty in paying bills. The authors outline how these results can assist in better targeting of existing policy efforts and in assessing the impact of different schemes.

There are four sections in the paper: Introduction (three subsections); Method and Data; Results; and Conclusion and Policy Implications.

There are 47 items in the reference list, with year of publication ranging from 1966 to 2019. Economists cited include John Creedy, Elie Lacroix, Franco Modigliani, Paul Simshauser and Paola Valbonesi. A classic reference is Franco Modigliani's 'The Life Cycle Hypothesis of Saving, the Demand for Wealth and the Supply of Capital' published in *Social Research* in 1966.

The article can be accessed by subscription to *Economic Record*.

Household Telecommunications Expenditure in Australia, Robert Breunig and Owen McCarthy, *Telecommunications Policy*, 44, 1, February 2020, 101837.

The authors of this paper, Robert Breunig and Owen McCarthy, use a mix of survey data to examine the changing nature of telecommunications expenditure in Australia over the period 2006 to 2015. The authors use waves 6 to 15 of the Household Income and Labour Dynamics in Australia (HILDA) survey and the 2009-10 and 2015-16 releases of the Household Expenditure Survey (HES). They estimate a multiple-regression model of the share of income spent on telecommunications services, controlling for household characteristics such as income and number of members. The authors propose new measures to assist with the monitoring of two distinct groups of low-income households who may face barriers to participation in the digital economy.

The authors' results suggest that household expenditure on telecommunications behaves in a similar way to a core necessity such as food. In particular, consumers will alter their telecommunications consumption by only a small amount as income changes. As a result, when income decreases, the proportion of total expenditure allocated by a household to telecommunications services typically increases.

While telecommunications services in Australia have become more affordable on average, there are some groups who spend a larger proportion of their income on these services. Households in lower-income deciles, households with youth or young adults, and households located in rural or remote areas spend more on telecommunications relative to their income than other households.

Low-income households spending a small proportion of their income on telecommunications services are more likely to have members: aged 65 or older; or who are disadvantaged by, for example, having poor English-speaking skills or having long-term health conditions; or those who are unemployed or not in the labour force; or who are more likely to be in receipt of welfare in the form of the Age Pension or Disability Support Pension. However, recipients of the Newstart Allowance are found not to be more likely to exhibit this spending pattern.

Low-income households spending a large proportion of their income on telecommunications services are more likely to report financial difficulty in the subsequent period and to have household members in disadvantaged groups, such as those with long-term health conditions or poor English-speaking skills, or those who are Aboriginal or Torres Strait Islander, unemployed or not in the labour force.

The authors propose measures to identify low-income households with relatively high or relatively low expenditure on telecommunications. These measures can be used to identify households that potentially have 'telecommunications inadequacy' or 'unsustainable telecommunications expenditure'.

There are six sections in the paper: Introduction; Background and Related Literature; Data; Regression Results; Low-income Households with Relatively High or Relatively Low Telecommunications Expenditure (two subsections); and Discussion and Conclusion. There is an Appendix A and an Appendix B.

There are ten items in the reference list, with year of publication ranging from 2001 to 2018. Economists cited include Roxana Barrantes, Anne Daley, Hernan Galperin, Gary Madden, Rebecca McKibbin, Benjamin Phillips and Robert Tanton.

The article can be accessed by subscription to *Telecommunications Policy*.

The Risk of Too Much Air Safety Regulation, Dennis L Weisman and Peter van Doren, *Regulation*, Spring 2020, pp. 6-9.

This paper is about the regulation of air safety and, in particular, how there can be 'too much' regulation of air safety. An underlying reason for the 'too much' conclusion is that there are so few fatalities from air travel and so many from the substitute, highway travel. The additional costs of making air travel safer (discussed in relation to the regulatory activity surrounding the grounding of the Boeing 737 Max aircraft) will result in an increase in airfares. These higher fares will cause some travellers to shift from air travel into highway travel. Under plausible assumptions this shift can cause more deaths than are saved.

Key data in the empirical investigation are the mortality rate for different modes of travel and the quantities of the different modes of travel. The mortality rate for air travel is 0.07 fatalities per billion passenger miles as compared to 7.28 fatalities per billion passenger miles for automobile travel, implying that it is over 100 times more hazardous to drive than to fly on a per-mile basis. In terms of quantity of travel there were 694 billion domestic passenger air-miles and 5,502 billion total passenger highway miles travelled in 2017.

The authors anticipate an increase in airfares based on the likelihood that the Federal Aviation Administration will make regulatory changes in light of the Boeing 737 Max accidents. The compliance costs for those changes will add to the cost of the accidents, and, while the continuing investigation may indicate that changes are warranted, federal

authorities are likely to 'reflexively overregulate' air safety, driving up airfares.

The higher airfares will divert some travellers from air travel to highway travel. To estimate the amount of substitution the authors draw on estimates of the cross-elasticity effect of airfares on the demand for automobile travel. Assuming a cross-elasticity of 0.06, a 10 per cent increase in airfares will lead to an increase of 33 billion passenger highway miles travelled which would be expected to result in an increase in annual highway fatalities of 240. The authors' analysis suggests that even relatively modest increases in airfares resulting from more stringent regulation can cost more lives on the ground than are saved in the air.

One of the authors' concluding observations is that the empirical fact that the risk of dying in an automobile crash is many times greater than dying in a plane crash should temper calls for increases in air-safety regulation that also raise airfares.

There are six items in the reference list, with year of publication ranging from 1995 to 2019. Economists cited include Shane Sanders, Ian Savage and Thomas Sowell. Data are from National Transportation Statistics, published by the US Bureau of Transportation Economics.

The article can be **accessed by following this link** and the authors' Further Thoughts from Cato at Liberty are **available here**.

Cartel Damage: Principles, Measurement and Economics, Cento Veljanovski, Oxford University Press, Oxford, April 2020.

This book is intended as a comprehensive practical guide on the law, economics, and measurement of cartel damages under United Kingdom (UK) and European competition laws. It draws together recent research on cartels, economic analysis, empirical techniques, case law, and legislation to examine how the quantification of losses suffered by those harmed by a cartel are, and could be, applied under European and UK competition laws.

The author, Cento Veljanovski, writes that he has the 'practitioner in mind' and that he takes 'a rigorous yet pragmatic approach to the subject'. The detailed discussions of leading cases are intended to complement the treatment of the application of economic theory and empirical techniques in competition law and litigation.

The book is divided into six parts: Cartels in Context (two chapters); The Legal Framework (five chapters); Measurement (seven chapters); Pass-on (four chapters); and Legal Process (three chapters). Three appendices provide the reader with reference guides to statistics on European Cartel Decisions (1999 to 2018), Bank of England 'base rate' (1980-

2019), and where to find key documents and information.

See here for information on how to access this book.

The Profound Nonsense of Consumer Welfare Antitrust, Sandeep Vaheesan, *The Antitrust Bulletin*, 64, 4, December 2019, pp. 479-494.

This paper is about aspects of basing antitrust on a consumer-welfare standard. In the author's view, in spite of it being the prevailing wisdom, consumer-welfare antitrust 'rests on a bed of nonsense'. This conclusion is based on three propositions that are discussed at length in the paper.

First, Sandeep Vaheesan believes that consumer-welfare antitrust is built on false history and a rewriting of legislative intent. The discussion includes the claims that the consumer-welfare basis is 'rooted in the false historical analysis of Robert Bork' and that 'Bork substituted his personal ideology for the vision of the drafters of the antitrust laws'.

Second, the author contends that consumer-welfare antitrust relies on a false conception of the market and submerges the state construction of the economy. The discussion in this section includes the claim that the Supreme Court, the Department of Justice and the Federal Trade Commission 'explicitly or implicitly suppress the constitutive function of state action' and 'in line with the paradigm of the law and economics school in general ... rely on a false conception of the market'.

Third, the author contends that consumer-welfare antitrust depends on, and is informed by, false assumptions about business conduct. The focus of this discussion is on mergers and predatory pricing. It is claimed that 'mergers do not promote consumer welfare', 'predatory pricing is real' and 'the federal antitrust agencies and courts continue to evaluate mergers and predatory pricing claims relying on simplistic toy models of the world'.

While the third falsehood suggests to Sandeep Vaheesan that an analytical renovation and better antitrust economics are sorely needed, the first two falsehoods show that empirical improvements are necessary but not enough. These falsehoods together mean that the 'entire enterprise at present is built on a bed of sand' and that a 'fundamental reconstruction of antitrust is required'. An antitrust that promotes an equitable economy and protects democratic institutions will, in the author's view: be true to legislative intent; recognise the state construction of the marketplace; and be informed by empiricism.

There are five sections in the paper: Introduction; The False Reading of Congressional Intent; The False Naturalization of the Market; The False

Assumptions about Business Conduct (with subsections); and Conclusion: Time to Return to History, Law and Realism.

Economists cited include Robert Bork, Herbert Hovenkamp, Frederic Scherer, Carl Shapiro, Leonard Weiss and Gregory J Werden. A classic reference is to the volume titled *Concentration and Price* which was edited by Leonard Weiss and published by MIT Press in 1989.

This paper can be accessed by subscription to *The Antitrust Bulletin*.

PC Productivity Insights 2020: Can Australia be a productivity leader?, Productivity Commission, 13 March 2020.

This publication is the second in the Productivity Commission's (PC) Productivity Insights 2020 series. It is about Australia's productivity performance relative to other Organisation for Economic Co-operation and Development (OECD) countries, and how this relative performance could be improved.

Australia is a high-income country, with the twelfth highest average income in the OECD. According to the PC, this is partly due to Australians working harder, with the fifth-highest hours worked per capita in the OECD. This is driven by high labour force participation rates and high hours worked per employee relative to other OECD countries.

When it comes to 'working smarter' – measured by the labour productivity level or Gross Domestic Product (GDP) per hour worked – Australia's productivity is reported in this study to be sixteenth in the OECD. The United States (US) effectively represents the productivity frontier, and is described by the PC as a large diversified economy with high underlying productivity. It currently takes a typical Australian worker five days to produce what would take a typical American worker four days.

Catching up to the productivity level of the United States has, according to the PC, proven elusive over the past five decades, partly because Australia's relative remoteness and low population density have been a barrier to achieving efficient scale in manufacturing and goods distribution.

While remoteness and low population density will continue to limit convergence in manufacturing and goods distribution, the PC sees substantial opportunities to improve performance in service industries. It presents estimates suggesting that Australian service industries are between 20 per cent and 60 per cent less productive than the same industries in the US.

While the Australian formal educational attainment is 'rapidly approaching United States levels', the Australian economy is less research and

development (R&D) intensive. According to the PC, this R&D position largely reflects the different industries in which Australia's comparative advantage lies – more in mining and agriculture, and less in manufacturing.

Finally, management capability is seen as critical in facilitating innovation but Australian businesses tend to perform poorly in this area, particularly in harnessing the benefits of digital technologies.

There are 33 items in the reference list, with year of publication ranging from 1992 to 2019. Economists cited include Tim Hatton, Dean Parham and Glenn Withers.

The article can be **accessed by following this hyperlink**.

Regulatory Decisions in Australia and New Zealand

Australia

Australian Competition and Consumer Commission (ACCC)

Domestic Air Travel Market – Monitoring and Reporting Role

On 19 June 2020 the ACCC was directed to monitor the prices, costs and profits of Australia's domestic airline industry and provide quarterly reports to inform Government policy.

Quarterly Wholesale Market Indicators Report Released

On 26 May 2020 the ACCC published its **NBN Wholesale Market Indicators Report**, as an overview of the NBN wholesale market with a focus on residential services.

Monthly Measuring Broadband Australia Report Released

On 21 May 2020 the ACCC released its first **new monthly Measuring Broadband Australia report**, tracking NBN network performance from February to April 2020.

Cooperation between the Australian Energy Council and Energy Businesses – Interim Authorisation

On 1 May 2020 the ACCC granted **interim authorisation** to allow the Australian Energy Council and energy businesses to co-operate in providing financial relief to customers impacted by the COVID-19 pandemic.

NBN Access Inquiries Guidance – Position Papers Released

On 2 April 2020 the ACCC released **position papers on two NBN-related inquiries**.

Australian Competition Tribunal (ACT)

No reportable matters listed.

Australian Energy Market Commission (AEMC)

Electricity Network Economic Regulatory Framework 2020 Review Commenced

On 4 June 2020 the AEMC announced **commencement of its annual review** of the electricity network economic regulatory framework (2020 Review). Submissions are required by 2 July and the final report is anticipated 1 October 2020.

Integration of New Technologies into the National Electricity Grid – Consultation Plan

On 7 May 2020 the AEMC announced a **plan to consult with stakeholders** in the next phase of reforms integrating new technologies into the national electricity grid. An access model and draft rules are due by the end of 2020.

Two-Sided Energy Markets – Energy Security Board Discussion Paper Released

On 20 April 2020 the AEMC released a **discussion paper examining the possibility of a two-sided market**, whereby all types of energy users buy and sell electricity. Detailed analysis will follow at the end of 2020.

Australian Energy Market Operator (AEMO)

Wholesale Electricity Market (WEM): Electricity Statement of Opportunities 2020 Published

On 16 June 2020 the AEMO published its **wholesale electricity market statement of opportunities** which forecasts electricity demand and operational consumption across WA over a ten-year period, to inform future development.

Renewable Integration Study: Stage 1 Report Released

On 30 April 2020 the AEMO released the **Renewable Integration Study**, the first stage of a multi-year plan to build future security of the National Electricity Market.

Quarterly Energy Dynamics Q1 2020 Report Published

On 23 April 2020 the AEMO released its **Q1 2020 Quarterly Energy Dynamics Report**.

Gas Statement of Opportunities for Eastern and South-Eastern Australia – Report Published

On 27 March 2020 the AEMO published its latest report on **Australia’s east and south-east coast gas market**.

Australian Energy Regulator (AER)

Gas Transmission Pipeline Reference Tariff 2020-21 for Northern Territory Gas Customers Approved

On 17 June 2020 the AER announced approval of the **2020-21 gas reference tariff** proposed by Amadeus Gas Pipeline.

SA Power Networks 2020-25 Revenue – Final Decision

On 5 June 2020 the AER released its final decision allowing **SA Power Networks’ revenues over the 2020-25 regulatory control period**.

Energex’s Revenue 2020-25 – Final Decision

On 5 June 2020 the AER released its final decision for **Energex’s 2020-25 regulatory period**.

Ergon Energy’s Distribution Determination 2020-25 – Final Decision

On 5 June 2020 the AER issued its final decision on **network charges for the 2020-25 regulatory period**.

Directlink Interconnector between Queensland and NSW Revenue 2020-25 – Final Determination

On 5 June 2020 the AER published its final decision setting out **the revenue Directlink can collect from electricity customers**, between Queensland and New South Wales, 1 July 2020 to 30 June 2025.

Jemena Gas Networks (NSW) Access Arrangement 2020-25 – Final Decision

On 5 June 2020 the AER released its final decision on **revenues for Jemena Gas Networks for the 2020-25 period**, starting 1 July 2020.

Australian Gas Networks Distribution Tariffs for South Australian Gas Customers 2020-21 Approved

On 2 June 2020 the AER approved the **2020-21 gas distribution tariffs** proposed by Australian Gas Networks for its South Australian network, to come into effect from 1 July 2020.

2022 Rate of Return Instrument – Position Paper Published

On 29 May 2020 the AER published its position paper including a timeline and description of process steps to achieving the **2022 Rate of Return Instrument**. Next will be a series of working papers on specific rate of return topics.

Estimating Expected Inflation – Discussion Paper Published

On 25 May 2020 the AER published a **discussion paper on the regulatory treatment of inflation**. Submissions are required by 15 July 2020.

Evoenergy Distribution Tariffs for ACT Electricity Customers 2020-21 Approved

On 15 May 2020 the AER approved the **2020-21 electricity distribution tariffs** proposed by Evoenergy.

TasNetwork Distribution Tariffs for Tasmanian Electricity Customers 2020-21 Approved

On 15 May 2020 the AER announced approval of the **2020-21 electricity distribution tariffs** proposed by TasNetworks.

Power and Water Corporation Distribution Tariffs for Northern Territory Electricity Customers 2020-21 Approved

On 15 May 2020 the AER approved the **2020-21 electricity distribution tariffs** proposed by Power and Water Corporation, which come into effect on 1 July 2020.

Default Market Offer Prices for 2020-2021 – Final Determination

On 30 April 2020 the AER published updated **Default Market Offer prices for 2020-21**, which come into effect on 1 July 2020.

Evoenergy Distribution Tariffs for ACT Gas Customers in 2020-21 Approved

On 29 April 2020 the AER approved the **2020-21 gas distribution tariffs** proposed by Evoenergy for ACT gas customers; including the Queanbeyan and Palerang areas.

High Wholesale Electricity Prices in South Australia on 2 March 2020 – Report Published

On 29 April 2020 the AER published a **report into prices in the wholesale electricity market** in South Australia on 2 March 2020.

Ring-Fencing Annual Report Released

On 14 April 2020 the AER released its **Ring-fencing Annual Report for the 2018-19 period**, reporting on distribution network service providers' compliance with the Electricity Distribution Ring-fencing Guideline.

High Wholesale Electricity Prices – Two Reports Published

On 26 March 2020 the AER published **two reports into high prices in the wholesale electricity market** in South Australia and Victoria on 30 January 2020; and in South Australia, Victoria and New South Wales on 31 January 2020.

National Competition Council

NSW Third-Party Access Regime for Water Infrastructure Services – Decision to Certify

On 2 April 2020 the NCC published its Final Recommendation to **certify the NSW Government's water infrastructure services access regime**, for a further ten years (from 13 August 2019 to 12 August 2029).

Australian Capital Territory

Independent Competition and Regulatory Commission (ICRC)

ActewAGL's Regulated Tariffs for Small Customers 2020-24 – Final Report and Price Determination

On 5 June 2020 the ICRC published its final report into its decision on the regulatory approach and pricing model that will be used during **the 2020-24 regulatory period for the ACT retail electricity market**.

Incentive Mechanisms for Water and Sewerage Services Price Regulation – Draft Report Released

On 7 May 2020 the ICRC released a draft report on incentive mechanisms for water and sewerage services price regulation. **Feedback on the draft report is required by 10 July 2020.**

Electricity Feed-in Tariff Code – Final Decision

On 4 May 2020 the ICRC released its final decision on **the Electricity Feed-in Tariff Code update**, and also the new Code which will commence on 1 July 2020.

New South Wales

Independent Pricing and Regulatory Tribunal (IPART)

Prices for Hunter Water Corporation from 1 July 2020 – Final Report and Determination

On 16 June 2020 the IPART published its final report and determination on the prices **Hunter Water can charge** its customers from 1 July 2020.

Prices for Sydney Water Corporation from 1 July 2020 – Final Report and Determination

On 16 June 2020 the IPART published its final report and determination on the prices that **Sydney Water can charge** its customers from 1 July 2020 to 30 June 2024.

Prices for Water NSW's Greater Sydney Customers from 1 July 2020 – Final Report and Determination

On 16 June 2020 the IPART published its final report and determination on prices that Water NSW can charge Sydney Water Corporation (Sydney Water), three councils, and approximately 60 raw and unfiltered water customers in the Greater Sydney area from 1 July 2020 to 30 June 2024.

Water NSW's Regulated Charges for Rural Bulk Water 2020-21 – Final Report

On 2 June 2020 the IPART published its final report into Water NSW's **regulated charges for the nine Murray-Darling Basin valleys and Fish River**.

Solar Feed-in Tariffs 2020-21 – Final Report

On 5 May 2020 the IPART published its final report recommending a benchmark range for solar feed-in tariffs for 2020-21.

Northern Territory

Utilities Commission

Northern Territory Electricity Outlook Report 2018-19 Published

On 17 June 2020 the Utilities Commission published the 2018-19 Northern Territory Electricity Outlook Report.

Northern Territory Power System Performance Review 2018-19 Published

On 18 May 2020 the Utilities Commission published its annual review of the Northern Territory's power system.

Northern Territory Electricity Retail Review 2018-19 Published

On 18 May 2020 the Utilities Commission published its **2018-19 Northern Territory Electricity Retail Review**.

Queensland

Queensland Competition Authority (QCA)

Regional Queensland Solar Feed-in Tariff 2020-21 – Final Report

On 29 May 2020 the QCA published its **determination of the feed-in tariff** for small-scale solar photovoltaic owners in regional Queensland.

Aurizon Network's Annual Review Tariff Review 2020-21 – Variations Approved

On 27 May 2020 the QCA approved **Aurizon Network's proposed variations** to its allowable revenues and reference tariffs.

South East Queensland Electricity Market Monitoring 2019-20 Q3 Report

On 30 April 2020 the QCA released a **report** about the prices that electricity retailers in south east Queensland offered between 1 January and 31 March 2020.

Queensland Rail (QR) Submitted an Amended 2020 Draft Access Undertaking (DAU)

On 24 April 2020 the QCA published **Queensland Rail's amended Draft Access Undertaking** (updated afterwards to reflect recently released Consumer Price Index information) for negotiating access to its rail infrastructure.

South Australia

Essential Services Commission of South Australia (ESCOSA)

South Australian Rail Access Regime 2020 Review – Draft Report

On 18 June 2020 the ESCOSA published its **Draft Report**, following the receipt of nine submissions on the SA Rail Access Regime Review 2020.

SA Water Regulatory Determination 2020 – Final

On 11 June 2020 the ESCOSA released its **final SA Water Regulatory Determination**, which will set maximum revenues, minimum service standards and

pricing requirements, to apply from 1 July 2020 to 30 June 2024.

Tasmania

Office of the Tasmanian Economic Regulator (OTTER)

Aurora Energy's Standing Offer Electricity Prices 2020-21 Approved

On 22 June 2020 the OTTER announced approval of a **1.38 per cent decrease in Aurora Energy's standing offer electricity prices**, to apply from 1 July 2020 to 30 June 2021.

State of the Tasmanian Water and Sewerage Industry 2018-19 Report

On 22 May 2020 the OTTER released its latest **review of Tasmania's urban water and sewerage industry**.

Victoria

Essential Services Commission (ESC)

Maximum Prices Exempt Sellers may Charge Customers in Embedded Networks

On 6 May 2020 the ESC published its draft decision about how the maximum price for residential and small business customers within embedded networks will be set; to apply from 1 September. **Feedback on the draft decision is required by 15 June 2020.**

Western Australia

Economic Regulation Authority (ERA)

Price List for Western Power Network 2020-21 Approved

On 15 June 2020 the ERA published its notice of **approval of Western Power's 2020/21 price list**. The prices will commence on 1 July 2020.

New Zealand

New Zealand Commerce Commission (NZCC)

Transpower Major Capital Expenditure Proposal – Draft Decision to Approve

On 22 May 2020 the NZCC released its **draft decision paper approving a major capital expenditure proposal from Transpower New Zealand Limited**. Submissions are due by 9 July

2020, and a final decision is anticipated by 3 September 2020.

Measuring Broadband New Zealand Autumn 2020 Report Published

On 21 May 2020 the NZCC published its latest Measuring Broadband New Zealand report, examining the **unprecedented demand on broadband networks during lockdown**.

Copper Withdrawal Code – Draft Code and Draft Decisions Published

On 20 May 2020 the NZCC published its draft **Copper Withdrawal Code**. The final code will be published in September 2020.

Aurora Energy’s Proposed Investment Plan and Associated Price Increases – Introductory Papers Published

On 19 May 2020 the NZCC published an introductory paper outlining its role ahead of electricity lines company Aurora Energy submitting its investment plan. **A final decision on the investment plan is due in March 2021.**

Network is a quarterly publication of the Australian Competition and Consumer Commission for the Utility Regulators Forum. For editorial enquiries please contact Rob Albon (Robert.Albon@acc.gov.au) and for mailing list enquiries please contact Genevieve Pound (Genevieve.Pound@acc.gov.au).