COMMERCIAL IN CONFIDENCE

FINAL REPORT

Addressing market power in electronic lodgment services

Cost-benefit analysis

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THE CENTRE FOR INTERNATIONAL ECONOMICS
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Glossary

ACCC	Australian Consumer and Competition Commission
ARNECC	Australian Registrars' National Electronic Conveyancing Council
CBA	Cost Benefit Analysis
ELN	Electronic Lodgment Networks
ELNO	Electronic Lodgment Network Operator
ECNL	Electronic Conveyancing National Law
ESB	Enterprise Service Bus
IGA	Intergovernmental Agreement
ITWG	Interoperability Technical Working Group
IPART	Independent Pricing and Regulatory Tribunal of NSW
MOR	Model Operating Requirements
MPR	Model Participation Rules
RBA	Reserve Bank of Australia

Summary

Background

Electronic conveyancing (eConveyancing) has become increasingly widespread since its introduction in 2013.

- eConveyancing is now available in all states and territories, except Tasmania, the ACT and the Northern Territory and will be introduced in the ACT later this year and in Tasmania and the Northern Territory in the next few years.
- eConveyancing is now mandatory for most transactions in NSW, Victoria, South Australia and Western Australia.

The problem

The market for electronic lodgment services is currently dominated by the incumbent Electronic Lodgment Network Operator (ELNO), PEXA. Although a second ELNO, Sympli, has recently entered the market, PEXA retains close to 100 per cent of the market.

The two ELNOs are currently not interoperable, meaning that for multi-party transactions all parties must use the same ELNO. The lack of interoperability contributes to several significant barriers to effective competition in the market, including:

- network effects — these occur where the value of a product increases, the more users subscribe to the service
- the relatively high cost 'multi-homing' (i.e. subscribing to multiple ELNOs) — the costs associated with multi-homing, include: record keeping, ongoing management and review of participation agreements, compliance obligations, additional staff training costs, additional costs associated with digital certificates, and the costs associated with using a less familiar user interface.

As most conveyancers (and solicitors doing conveyancing work) already subscribe to PEXA (particularly in those jurisdictions that have made eConveyancing mandatory), these factors mean that there is limited incentive to subscribe to Sympli. It is therefore doubtful that effective competition will emerge under current regulatory arrangements.

There is a strong in-principle case for additional government action to address PEXA's market power in the market for electronic lodgment services. However, consistent with best practice regulatory principles, the various options for addressing PEXA's market power need to be tested through a formal cost-benefit analysis.

Options

There are various approaches to addressing PEXA's market power in the market for electronic lodgment services. The options considered in the CBA are as follows:

- maintaining the status quo (i.e. no further action to address market power in the market for electronic lodgment services) — this option is used as base case against which the costs and benefits of the other options are assessed
- mandating interoperability to facilitate effective competition
- a more comprehensive approach to price regulation.

Cost-benefit analysis

Based on reasonable assumptions about the benefits that more effective competition will deliver, and approximate cost estimates gathered from stakeholders and other sources, we estimate that interoperability is likely to deliver the largest net benefits of the options considered.

- The net benefit (relative to the status quo base case, where there is no effective competition in the market for electronic conveyancing services) is estimated at around $83.6 million in net present value terms over 10 years, using a discount rate of 7 per cent.
  - The main costs of mandating interoperability between ELNOs is the costs incurred by ELNOs in establishing the connection and associated APIs. There are also significant costs incurred by related parties associated with accommodating an additional ELNO (some of which have been passed onto Sympli). However, these costs of other parties have either already been incurred (i.e. are sunk); or are likely to be incurred even if interoperability is not mandated.
  - Although the costs to ELNOs associated with establishing connections could be significant, these costs are significantly outweighed by the anticipated benefits of competition, including:
    - lower prices for consumers (which is partly a transfer from ELNOs to consumers, but there are also efficiency improvements in reducing transaction costs)
    - quality improvements that potentially save time for conveyancers (which could possibly be passed onto consumers)
    - innovation that delivers ongoing price reductions (in real terms) and quality improvements over time.
- A more comprehensive approach to price regulation could also deliver modest benefits relative to the base case (which includes capping price increases by CPI movements). However, the benefits of price regulation are estimated to be significantly smaller than the benefits of competition (facilitated by interoperability).
  - Price regulation has significant limitations and is unlikely to deliver the same price benefits as competition.
  - Price regulation is also less likely to deliver quality improvements or innovation over time.

- Although there is significant uncertainty around these estimates (reflecting uncertainty as to how the market for electronic lodgment services will evolve both with or without interoperability), scenario and sensitivity testing suggests that these findings are likely to be relatively robust.

1 Summary of CBA results – incremental to central base case

	Enhanced price regulation	Interoperability
	$million, pv	$million, pv
Capital costs		
ELNO direct connection costs	0.0	18.7
ESB development cost	0.0	2.5
ELNO transition to ESB	0.0	0.3
Related party capital costs	0.0	0.7
Total capital costs	**0.0**	**22.2**
Operating costs		
ELNO cost of maintaining subscribers	0.0	-3.9
ELNO testing costs	0.0	4.2
ELNO insurance cost	0.0	2.1
Related parties operating costs	0.0	17.0
Price regulation	2.8	0.0
Subscriber costs (onboarding plus ongoing training)	0.0	-0.6
Total operating costs	**2.8**	**18.9**
Total costs	**2.8**	**41.1**
Benefits		
Benefits from reduced price distortions	22.5	94.0
Time savings from product improvement	0.0	30.8
Total benefit	**22.5**	**124.7**
Net benefit	**19.7**	**83.6**

Note: Costs and benefits are estimated over 10 years, using a discount rate of 7 per cent.
Source: CIE.

Interoperability compared to an alternative base case

Interoperability has also been compared to an alternate base case, where multi-homing of subscribers is the norm (table 2). Against this base case, interoperability delivers considerable benefits as the costs of multi-homing are relatively high:

- ELNOs only receive revenue from subscribers when they complete a transaction but incur costs from maintaining subscribers. Interoperability – multi-homing forces ELNOs to incur costs of maintaining subscriptions with all potential subscribers, while only capturing a fraction of potential transactions.
- Training costs are duplicated where ELNO users are required to use both PEXA and Sympli platforms.

- This result is consistent with previous analysis of the costs of multi-homing of ELNOs completed by IPART, which found that any model of interoperability is likely to be more cost efficient that multi-homing.[1]

2 Summary of CBA results – incremental to multi-homing base case

	Interoperability
	$million, pv
Capital costs	
ELNO direct connection costs	18.7
ESB development cost	2.5
ELNO transition to ESB	0.3
Related party capital costs	0.7
Total capital costs	**22.2**
Operating costs	
ELNO testing costs	4.2
ELNO insurance costs	2.1
Related parties operating costs	17.0
Price regulation	0.0
Total operating costs	**23.4**
Total costs	**45.5**
Benefits	
Avoided costs of ELNOs maintain subscribers	80.7
Avoided costs (onboarding plus ongoing training)	47.0
Benefits from reduced price distortions	0
Time savings from product improvement	0
Total benefit	**127.6**
Net benefit	**82.1**

Note: Costs and benefits are estimated over 10 years, using a discount rate of 7 per cent.
Source: CIE.

Distribution impacts and competition test

Although the cost savings of around $8-$15 per transaction may be considered relatively modest, competition policy is also focused around protecting consumers. In this context, even if a reduction in prices did not result in a net economic benefit but entirely represented a transfer from producers to consumers – there could still be a rationale to increase competition.

To evaluate this, we have undertaken a distributional analysis (chart 3). Consumers and Sympli are the main winners from interoperability; consumers enjoying lower prices,

1 IPART 2019, Review of the Pricing Framework for Electronic Conveyancing Services in NSW, Final report, p. 26.

while Sympli increases revenue by due to the assumed increase in market share. This assumes that conveyancers and solicitors pass on ELNO costs to consumers as disbursements. If, however practitioners charge a fixed fee and absorb the cost of ELNO fees, [practitioners would benefit from reduced cost and increased profit per transaction. Lawyers and conveyancers also benefit from interoperability, primarily from time savings which may be realised from competition.

PEXA is the main loser from interoperability, losing revenue as a result of Sympli capturing a larger market share and reducing prices to compete with Sympli in the market.

3 Distributional impacts – incremental to central base case

Data source: CIE.

In the analysis the cost saving per transaction for consumers is relatively modest.

- A customer moving from PEXA to Sympli would save $15.14 per transfer
- If PEXA were to reduce prices by $7.5 per cent (as modelled), consumers would save $8.56 per transfer

Although the costs savings per transaction are small, the cumulative cost savings across the almost 3 million conveyancing transaction each year in Australia are large. The benefits of competition being thinly spread over a large number of consumers is a common feature of competition reforms.

The impact of interoperability on the entry of additional ELNOs

In this analysis we have not considered the entry of future ELNOs, however interoperability may encourage this by, increasing the potential returns of a new entrant. Interoperability allows ELNOs to compete more effectively and may increase the possibility of capturing market share from incumbents.

Interoperability does not, however materially affect the costs of new ELNO entering the market. Under the phased ESB model, the set-up costs of a new entrant include:

- the cost of meeting regulatory requirements
- development of back end infrastructure to process transaction
- development of direct connections with related parties
- development of direct connections with ELNOs or connection to the ESB (connecting to the ESB may result in a small cost saving compared to direct connections)

The main costs for set up are development of back end infrastructure and direct connections with related parties. We understand that the costs of a new entrant would be reduced if related parties were to connect to ELNOs via the ESB, as new ELNOs would only need to make one connection as opposed to the connecting individually to banks, and land registries and SROs in each state. However, this is not included in the scope of the scope of phased ESB approach and has not been considered by the ITWG.

Comments from the draft report

A draft report was dated 17 August 2020 has been widely circulated amongst stakeholders, including members of ARNECC, members of the Interoperability Technical Working Group and government stakeholders.

Several stakeholders have provided detailed feedback. We have considered these comments carefully and revised the estimates accordingly. More details on the substantive comments provided and how they have been addressed are set out in appendix C.

Limitations

There are several limitations of this study which are noted below:

- the precise technical and regulatory arrangements for interoperability are uncertain. Because of this, the study relies on preliminary cost estimates, which may change as the technical and regulatory model is refined. Further analysis of technical and regulatory frameworks is necessary, and we understand form part of the ITWG forward workplan
- the eConveyancing market is young and not fully developed and how the market will evolve under current regulatory arrangements is not known with certainty
- costs in general are uncertain. Many of the costs of interoperability are borne by private businesses and are commercially sensitive. As a result, some costs have not been provided by stakeholders. Also, in some cases, stakeholders have not yet considered the potential costs of interoperability in detail and were unable to provide detailed cost estimates. Where cost information was not provided by stakeholders, costs are based on evidence from previous studies and some assumptions. Future analysis should focus on refining the costs of interoperability to provide greater certainty for decision makers.

- ELNOs are governed by the MORs, which regulate how ELNOs operate. For instance, ELNOs are required to operate across jurisdictions and must enable lodgment for common (but not all) document types as specified in the MORs. This limits how the market may develop and how ELNOs may compete. We have not considered how changes in these operating requirements may affect competition.
- the model for the ESB has not been determined. The precise costs and governance arrangements are uncertain. For this analysis we have assumed the ESB is government owned, operates on a cost recovery basis and is limited to a messaging service between ELNOs and does not replace other functions of ELNOs or other stakeholders. Governance of the ESB will need to be resolved to further refine costs
- the phased ESB model considered, consists of:
  - establishing a direct connection between ELNOs initially to establish interoperability as soon as possible
  - developing an ESB and transitioning the direct connection between ELNOs to the ESB

  This model, as it has been characterised in this study, does not include related parties (including banks, land registries and SROs) moving their direct connections to the ESB. As a result, the costs to related parties and ELNOs of integrating related party connections to the ESB have not been included in the analysis. This means the benefits from connecting related parties to the ESB, which are primarily making it cheaper for a third or subsequent ELNO to enter the market are not included in the analysis and are not considered necessary to immediately establish interoperability
- this analysis does not focus on competitive outcomes in upstream and downstream markets related to the risks of vertical integration. We note that the MORs provide some restrictions around separation of upstream and downstream services for eConveyancing.
- there are several third-party e-settlement subscribers, who for a fee can complete the ELNO data entry on behalf of conveyancers or solicitors who may not subscribe to a specific ELNO. We have not considered this as a solution to multi-homing for common transactions as data management is a core task of the conveyancing process and the additional fees per transaction would erode profits for conveyancers and solicitors. More generally we have not considered businesses offering third-party e-settlement in this study as we see this an alternative model for delivering conveyancing enabled eConveyancing (i.e. outsourcing data management and data entry to a third party), and we do not expect these activities to affect the benefits and costs of the options considered in this study.
- the analysis focuses on the competitive impact of enabling interoperability between PEXA and Sympli. The entry of another ELNOs is uncertain and would likely result in additional costs (from either establishing direct connections with related parties, or connecting related parties to the ESB) and benefits (from increased competition and product choice).

1 Background and introduction

Background

In 2008, the Council of Australian Governments agreed there should be a new single national framework for electronic conveyancing system (eConveyancing). The system is supported by the *Intergovernmental Agreement for an Electronic Conveyancing National Law* (IGA) and allows legal practitioners, conveyancers and financial institutions to electronically prepare and lodge land property dealings with title registries; transmit settlement funds and pay associated duties and tax; and remove the need to physically attend property settlements.[2]

In recent years eConveyancing has become increasingly widespread. eConveyancing is available in all states and territories other than Tasmania, the Northern Territory and the ACT. All three remaining jurisdictions have signed the IGA and passed legislation to allow for eConveyancing and intend to implement the system. The scope of documents that are capable of being lodged electronically has also expanded. Mandatory migration to eConveyancing is occurring in several jurisdictions, including Victoria, New South Wales, South Australia and Western Australia.

The market for Electronic Lodgment Networks (ELNs)

eConveyancing is facilitated by an Electronic Lodgment Network Operator (ELNO).

- The first ELNO, Property Exchange Australia (PEXA) was formed by the State Governments of NSW, Victoria, Queensland and Western Australia, the big four banks and several other investors. PEXA was subsequently purchased by Link Group, Commonwealth Bank of Australia and Lightyear Investments B.V. (a subsidiary of North Haven Infrastructure Partners II, a fund managed by Morgan Stanley Infrastructure Partners).
- A second ELNO, Sympli, has recently entered the market and completed its first transaction in October 2019. Sympli is a joint venture between Infotrack, an established legal technology and search provider, and ASX Limited. However, we understand that PEXA has so far retained close to 100 per cent of the market.
- Purcell Partners is also seeking to enter the market with an associated business called LEXTECH.

The number of conveyancing transactions in Australia are shown in table 1.1 (see appendix A for a breakdown by state). The uptake of eConveyancing was initially gradual, however, the share of transactions completed through eConveyancing has

2 ACCC 2019, ACCC report on E-conveyancing market reform, p. 2.

increased significantly through mandating in several states – in states with mandated eConveyancing the share of electronic lodgments is much higher (around 90 per cent for mainstream dealings in NSW and Vic). This trend is expected to continue.

1.1 Conveyancing transaction data 2019

	Conveyancing transactions	eConveyancing transactions	eConveyancing share of total transactions
	No.	No.	Per cent
Transfer	676 607	389 511	58
Mortgage	792 356	578 323	73
Discharge of mortgage	855 513	620 162	72
Caveat	72 541	52 879	73
Withdrawal of Caveat	40 449	30 492	75
Priority notice	59 159	9 787	17
Extension priority notice	74	72	97
Withdraw priority notice	371	359	97
Other	363 829	49 460	14
Total	**2 860 900**	**1 731 045**	**61**

Note: Data was not available for Tasmania and Northern Territory. The number of transfers for these jurisdictions were interpolated using dwelling turnover rate for the other states and territory and applying it to the dwelling stock in Tasmania and Northern Territory. Other transactions were interpolated based on the breakdown of transactions for the other states and territory. Jurisdictions provided varying disaggregation and classification of data – NA in the table denotes data which could not be identified.

Source: State and Territory Land Registry Services.

In addition to ELNOs, other stakeholders include:

- the individuals and companies who buy and sell land
- conveyancing and legal practitioners
- financial institutions
- state registrars of title and state land registries (some of which are now managed by private operators)
- state revenue offices
- the Reserve Bank of Australia (RBA)
- state governments, and
- the Australian Registrars' National Electronic Conveyancing Council (ARNECC).

Currently all parties to conveyancing transactions must use the same ELNO to complete the transaction, as there is no interoperability between ELNOs. Interoperability refers to ELNOs' systems being able to communicate with each other so that for multi-party transactions users can choose different ELNOs to complete a property transaction together. Given PEXA's market share and first mover advantage, the absence of interoperability limits competition in the market for eConveyancing, a concern which has been set out in various reviews into the current operating arrangements.[3] Establishing

3 For instance see IPART 2019, Review of the Pricing Framework for Electronic Conveyancing Services in NSW, Final Report, November 2019, p. 11-12 which summarises IPART's findings

interoperability is the ACCC's preferred approach to enable effective competition in the eConveyancing market.[4]

Current regulations

The basis of the regulatory framework for eConveyancing in Australia is the IGA. The IGA established the Australian Registrars' National E-Conveyancing Council (ARNECC) to facilitate the implementation and ongoing management of the regulatory framework for National eConveyancing. This sets out its objectives on behalf of the Registrars in each participating State and Territory:[5]

- to provide advice on the Electronic Conveyancing National Law (ECNL) and any matters relating to National eConveyancing
- to ensure that as far as practicable business practices with respect to eConveyancing are consistent when implemented in each jurisdiction
- to develop and maintain one national set of Model Operating Requirements (MOR) and Model Participation Rules (MPR) to be implemented as Operating Requirements and Participations Rules respectively in each jurisdiction to facilitate eConveyancing.

The ECNL governs the provisioning and operation of electronic conveyancing in Australia and is implemented by a national applied law scheme. The host jurisdiction is NSW which enacted the ECNL in 2012. The ECNL (as set out in the NSW Act) has since been adopted as a law of Victoria, Queensland, Tasmania, Northern Territory and recently the ACT. The ECNL has separately been enacted as mirror legislation in Western Australia and South Australia (who agree under the IGA to maintain consistency between the applied law and their mirror legislation).

The current regulations make some specific arrangements relevant to competition:

- the ECNL allows more than one operator in the market and enables the prospect of competition in the market. This means that the current regulations permit competition, but do not prescribe how competition in the market should occur.
- the MOR requires an ELNO to be available to each land registry in Australia and to subscribers in all states and territories, and also specifies the minimum scope of documents which must be available for eConveyancing.[6] This restricts how ELNOs can operate in the market.
- while an ELNO must set prices in accordance with a publicly available, equitable and transparent pricing policy[7], prices are not regulated and ELNOs are free to initially set these as they please. ARNECC does provide guidance on the pricing principles, such

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but also those of submissions to the IPART review from NSW Office of Registrar General, Sympli, the Law Society of NSW and Australian Banking Association.

4 ACCC 2019, ACCC report on E-conveyancing market reform, p. 11-19.

5 https://www.arnecc.gov.au/regulation/intergovernmental_agreement

6 ARNECC 2018, Model Operating Requirements, Version 5, p. 22.

7 ARNECC 2018 Model Operating Requirements, Version 5, OR 5.3(e).

as prices being cost reflective and minimising cross subsidies,[8] but there is no function to verify that prices are set according to these principles or that the prices are efficient.[9]

- price changes have been regulated from version 5 of the operating requirements which came into force on 25 February 2019.[10] Between 1 July 2019 to 30 June 2022, ELNOs are permitted to increase prices once a year on July 1, but the percentage price increase cannot exceed annual CPI growth for the previous March quarter. This restricts price changes, but does not consider whether those changes (or the resulting prices) are economically efficient. Also, there is no mechanism to ensure that future productivity improvements or cost savings are passed onto consumers, as this decision is left to the ELNO.

Pricing

ELNO fees are collected from each subscriber representing a party to the document. For a two-party document such as a transfer, the ELNO collects a fee from both subscribers representing the transferor and transferee. The fees vary between documents and also depend on whether it involves single or multiple titles. Price schedules for PEXA and Sympli are shown in appendix B.

PEXA and Sympli adopt a similar pricing structure, however this approach is not mandated by the legislation or operating requirements. ELNOs could choose to adopt alternative pricing structures.[11]

For some transactions several fees will be collected. A standalone transfer in a conveyancing transaction (see table 1.1) will result in two transfer fees being collected. In the most common transaction comprising a discharge of mortgage, a transfer and a mortgage there are four parties and the transaction which will result in 4 fees relating to:

- transfer for the seller
- transfer for the buyer
- mortgage, and
- discharge of mortgage.

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8 ARNECC 2019, Model Operating Requirement Guidance Notes, p. 58 – 59.

9 PEXA's initial prices were set in competition with costs in the well-established paper system and at the time, with no prospect of mandating the use of eConveyancing. As a result PEXA's initial prices may not reflect its own (efficient) costs.

10 PEXA's price changes were voluntarily limited to CPI or less prior to this limit being regulated from Version 5 of the MORs.

11 The current MOR allows ELNOs to prices once annually at the beginning of the financial year by up to CPI. We understand that an ELNO wishing to change their price structure, on other occasions may apply to ARNECC (see operating requirement 5.4).

This study

The Centre for International Economics (CIE) has been asked by the NSW Office of the Registrar General to undertake a cost benefit analysis of options to address market power in the market for electronic lodgment services. This is part of a broader workstream considering interoperability between ELNOs. This work is being considered as part of the Australian Registrars National Electronic Conveyancing Council considerations of market structures.

The key objective of the investigation is to identify and measure the costs and benefits of different market structures for eConveyancing.

This considers:

- the potential benefits of competition in eConveyancing
- the role of interoperability on competition and the eConveyancing market; this draws on the considerable work already completed by the current NSW and South Australia Government led process, with support from Queensland, to examine options for interoperability, ACCC and IPART reviews of eConveyancing, the review of the eConveyancing Intergovernmental Agreement (IGA review) and Dr Rob Nicholls's report considering interoperability between ELNOs which incorporates the views of industry and jurisdictions
- the societal costs and benefits of increased competition in eConveyancing
- the distribution impacts of increased competition for different stakeholders, including households and ELNO users, from possible reforms.

This analysis has been informed by consultations with eConveyancing stakeholders.

Although not formally a Regulatory Impact Statement (RIS), our approach to the study is consistent with best practice regulatory principles (although there are some differences in RIS requirements across states and territories, they are based on the same underlying principles).[12] In particular, the Competition Principles Agreement sets outs the guiding principle that underpins the RIS framework in all states and territories (see box 1.2).

1.2 Guiding principle under the Competition Principles Agreement

The guiding principle is that legislation (including Acts, enactments, Ordinances or regulations) should not restrict competition unless it can be demonstrated that:

- the benefits of the restriction to the community as a whole outweigh the costs; and
- the objectives of the legislation can only be achieved by restricting competition.

12 For example see: Office of Best Practice Regulation 2020, User guide to the Australian Government Guide to Regulatory Impact Analysis, March 2020, https://www.pmc.gov.au/resource-centre/regulation/user-guide-australian-government-guide-regulatory-impact-analysis.

Cost Benefit Analysis (CBA) is often used to assess various options for addressing an identified problem or market failure and is generally a key element of a RIS. CBA is an analytical technique for assessing the economic merit of a proposed initiative by assessing the benefits and costs to society of the initiative by comparing options to increase competition in the market for eConveyancing against a 'base case' which describes the market structure that would be expected to occur in the absence of further government action to address market power issues.

2 Understanding the problem

Although the details can vary across different jurisdictions, a key step in the RIS process is to articulate the problem and establish the case for government intervention. The need for government action is typically justified on the basis of 'market failures'.[13]

In this context the case for government action is based on market failure related to poor competitive outcomes. Uncompetitive market structures overtime may result in reduced economic efficiency, from:

- prices being higher than would occur in a competitive market
- poorer service quality
- less innovation, which may potentially lead to:[14]
  - higher future prices
  - deteriorating future service quality.

In this section, we discuss the problem and the case for government intervention.

The problem

The overarching problem to be addressed is that under current regulatory arrangements there is limited competition in the market for electronic lodgment services. Although Sympli has entered the market, there is a concern that the current regulations, market structure and the technical constraint that requires all parties to a property transfer to use the same ELNO do not provide the necessary conditions for competition to thrive. Entry alone into a market from a challenger does not guarantee robust competition.[15] This means that the potential benefits of competition are not being realised and there is potential for the abuse of market power.

Barriers to effective competition

The key barriers to entry or to increased competition are:

- network effects,

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13 See for example, Department of the Prime Minister and Cabinet 2020, The Australian Government Guide to Regulatory Impact Analysis, Second edition.

14 This issue is related to dynamic efficiency, which is the extent to which firms face appropriate incentives for investing in and innovating their service delivery approach and for improving efficiency over time.

15 ACCC 2019, Submission to draft final report for review of InterGovernmental Agreement for an Electronic Conveyancing National Law, p. 2.

- costs of multi-homing[16] (including technical constraint that requires all parties to a property transfer to use the same ELNO),
- regulatory uncertainty, and
- costs of establishing an ELNO.

In addition to these barriers, there is also a risk of vertical integration with the prospect of ELNOs moving into related markets, leading to new forms of monopolies in other markets. Note the MOR operating requirement 5.6 does provide some restrictions around the separation of upstream and downstream services.

By not addressing barriers to competition, market participants and the wider community forgo the potential benefits of competition. These issues are discussed in further detail below.

Network effects

Network effects occur when additional users of a product or service increase the value of a product or service for existing users. In the context of eConveyancing, a transaction can only proceed electronically, when all parties use the same ELNO. This means that the value of subscribing to an ELNO increases, the more subscribers the ELNO has.

- Where an ELNO has few subscribers, there is little prospect of being able to complete a transaction via that ELNO, so there is little incentive to subscribe and incur the associated costs.
- However, where an ELNO has many subscribers, there is a strong prospect that any transaction will be able to proceed electronically. Consequently, the value of subscribing is significantly higher.

One manifestation of the network effects in the market for eConveyancing is that, despite significant benefits over paper-based conveyancing, the uptake of eConveyancing was initially (i.e. prior to mandatory eConveyancing in some states) relatively modest. eConveyancing has subsequently been made mandatory in several jurisdictions.

Network effects are also recognised as a barrier to competition. Markets with network effects can become a 'winner takes all' (or nearly all) market.[17]

- When network effects are significant, individual users will be reluctant to switch to a competitor, even if it is superior.[18]

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16 Multi-homing refers to the fact that without interoperability most industry participants will potentially need to subscribe to all available ELNOS and agree on which is to be used in any particular transaction.

17 Jamison, M. 2012, Methods for Increasing Competition in Telecommunications Markets, Public Utility Research Centeer, University of Florida, p. 11.

18 Jarsulic, M. Gurwitz, E. and Schwartz, A., *Towards a Robust Competition Policy*, Centre for American Progress, 3 April 2019, https://www.americanprogress.org/issues/economy/reports/2019/04/03/467613/toward-robust-competition-policy/

- Network effects, if captured by a single firm, make it hard for rivals to offer services of comparable value to that provided by the dominant firm.[19]

As the only fully operational ELNO, PEXA has benefited from the requirement in some jurisdictions that eConveyancing must be used to lodge all mainstream documents. PEXA has therefore captured almost 100 per cent of the market for eConveyancing transactions.

In a market with a dominant provider and network effects, effective competition seems unlikely. Even if Sympli offers a more user-friendly interface and lower prices, users would need to bear the costs associated with multi-homing (see below), with limited opportunities to use Sympli.

The cost of multi-homing

Multi-homing costs refer to the costs of maintaining subscriptions to more than one ELNO. These costs include:

- costs of acquiring multiple subscriptions and digital signatures from several ELNOs,
- the time and cost of training staff to use an additional ELNO,
- the time and cost of integrating an additional ELNO into practice processes and practice management systems,
- the cost of determining which ELNO is to be used, and whether that ELNO can complete that transaction, and
- the inconvenience to users of having to switch between different systems, which may increase changes of data entry or user errors.

Currently ELNOs do not charge subscription fees or fees per users, but only charge fees per transaction (see appendix B for the ELNO pricing schedules). Because of this, ELNOs only realise revenue when subscribers are conducting transactions using the ELNO and there is no revenue from having a large number of inactive subscribers.

If a user wants to use Sympli for some transactions and there is no interoperability, they would also have to subscribe to PEXA or convince the other parties to subscribe to Sympli. This is because users must currently use the same ELNO for multi-party transactions, almost all eConveyancing users subscribe to PEXA and only a fraction subscribe to Sympli. This could result in two outcomes:

- where the costs of multi-homing are large or add to business complexity, we would expect few users to subscribe to Sympli and for there to be little competition in the market regardless of the number of ELNOs
- where the costs of multi-homing are small, we would expect more users to subscribe to Sympli, which may result in increased levels of competition.

Without interoperability, it is not clear how the ELNO for a multi-party transaction will be determined if parties disagree as to which ELNO to use. Some rule, such as giving preference to the incoming mortgagee bank, would be required. Where there is more than

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[19] Jamison, M. 2012, Methods for Increasing Competition in Telecommunications Markets, Public Utility Research Center, University of Florida, pp. 2-3.

one ELNO, this could force multi-homing on users. For instance, assume a user prefers PEXA, but is forced to complete the transaction using Sympli. The user will then be required to subscribe to Sympli and will incur multi-homing costs and the disutility of not being able to use their preferred ELNO.

Again, this outcome would not be desirable if multi-homing costs are large and would place a large impost on subscribers. In jurisdictions where eConveyancing is mandated, subscribers who prefer Sympli will need to maintain a PEXA subscription in order to lodge documents that Sympli has not yet developed but must be submitted electronically.

Regulatory uncertainty

Regulatory uncertainty creates barriers to entry for new and potential ELNOs. Without a clear understanding of the market structure, competitive environment and regulations, potential entrants may defer or forgo investments potentially entrenching a duopoly or monopoly market structure.

The key uncertainties, as noted by the ACCC include:[20]

- the lack of clarity around the governance framework, specifically around responsibility for key policy and regulation design features of the eConveyancing market,
- a lack of agreement within the stakeholder groups of the need for competition and the benefits and costs associated with providing a framework that will promote competition, and
- a lack of agreement on the appropriate market structure model and concerns and practicalities around the complex set of relationships involved in the conveyancing market. For instance, there is a risk that a complicated market structure may entrench a duopoly and prevent additional future market entrants.

Vertical integration

Vertical integration refers to a situation where an ELNO supplies upstream and downstream services in the conveyancing process (i.e. it may expand its offering to include title searching or practice management software).[21] We understand that Sympli would be in a position to take advantage of vertical integration as Infotrack, one of its shareholders, is a provider of legal and conveyancing software and search services, and a related company, LEAP, provides legal practise management software. Similarly, LEXTECH is owned by Purcell Partners, a Victorian Law firm, and is itself a mortgage processor affiliated with a number of client mortgagees.

While this may provide efficiency benefits for other markets there is a risk that this may result in additional monopolies developing in related markets.

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20 ACCC 2019, ACCC report on E-conveyancing market reform, p. 11.

21 IPART 2019, Review of the Pricing Framework for Electronic Conveyancing Services in NSW, Final Report, November 2019, p. 18.

ELNOs are well positioned to expand into information broking, software provider and practice management system markets. Without competition the incentives for a dominant firm to enter related markets would be high.[22] This could:

- reduce the economic efficiency of downstream markets and result in poorer outcomes for consumers, and
- increase the cost of regulation required to prevent or manage the risks of vertical integration.

We however note there are provisions in the MORs to avoid anticompetitive vertical integration.

The benefits of competition

IPART compared PEXA's current prices to a benchmark efficient ELNO, and found that its prices were reasonable compared to the modelled scenarios. This was based on a building block cost analysis. They consider PEXA's prices as an appropriate maximum for any ELNO in the short term. However, this is not to say that prices would not be lower under competition, with IPART stressing that competition will drive innovation and lower costs. In particular, Sympli's prices are between 10 and 50 per cent lower than PEXA's. Some stakeholders have speculated that Sympli has set prices below the efficient level to gain market share and will subsequently increase them. While this is possible, there is no evidence to support this proposition and there are regulatory barriers to Sympli increasing prices above CPI.

The ACCC has noted that a monopoly service provider has the incentive and ability, over time, to set prices and conditions for its services which favour itself over the long-term interests of users of the service and consumers.[23] In the absence of effective competition and with an automatic pathway to increase prices in line with CPI, there is little incentive for firms to pass on cost savings or to provide innovation for customers.[24]

Users of a service benefit from increased competition as:

- new entrants provide consumers with greater choice, and
- competition supports innovation, which may result in improved products or lower prices over time.

Even in the absence of competition, the threat of increased competition may encourage existing providers to innovate and improve product offerings and prices.

Prices above the socially optimal level impose welfare costs on society, as price signals affect behaviour. High prices are a direct manifestation of market power however, firms may also exercise market power in other non-price ways, including:[25]

- lower the quality of its products without a compensating reduction in price

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22 ACCC 2019, ACCC report on E-conveyancing market reform, p. 9-10.

23 ACCC 2019, ACCC report on E-conveyancing market reform, p. 2.

24 ACCC 2019, ACCC report on E-conveyancing market reform, 2 December 2019, p. 9.

25 ACCC 2008, Merger Guidelines, amended November 2017.

- reduce the range or variety of its products, or
- lower customer service standards.

Experience in other markets with network effects support claims that removing this barrier may increase competition.

- Two studies considering the retail card payment systems in multiple countries found that governments could increase efficiency by promoting interoperability and removing network effects among different systems.[26] [27]
- Similarly, the ASX Group was once the monopoly provider of trading, central clearing and securities settlement services for cash equities. However, Australia now has two large trading platforms (ASX Trade and Chi-X), and a number of smaller ones (see chapter 12 for further details). This is possible because the ASX Group must provide new trading platforms with access to its central clearing and securities settlement services. Chi-X, which accounts for more than 20 per cent of trading on many days, state that they have "significantly reduced trading, quotation and market data fees".[28] IPART has also argued that the regulation of cash equities shows how an access arrangement could be used to guide competition regulation in eConveyancing.[29]

The case for government action

The case for government action is seeking to correct an uncompetitive market structure or anti-competitive conduct that will lead to inefficient outcomes in the economy. This is seeking to avoid a monopoly operator in eConveyancing becoming entrenched, or an ELNO dominating the market and exercising excessive market power.

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26 Kemppainen, K. 2004, Competition and regulation in European retail payment systems, Bank of Finland Discussion Papers 16/2003.

27 Guibourg, G. 2001, Interoperability and Network Externalities in Electronic Payments, Working Paper Series 126, Central Bank of Sweden.

28 https://www.chi-x.com/about-chi-x

29 IPART 2019, Review of the Pricing Framework for Electronic Conveyancing Services in NSW, Final Report, November 2019, p. 42.

3 Objectives and options

Objectives

The IGA review proposed the following objectives for considering regulatory and governance arrangements for competition, including consideration of potential models of interoperability in the eConveyancing market:[30]

- minimise risk to titles security
- minimise risk to financial settlement
- maximise service quality and industry productivity, and
- minimise cost (to consumers and taxpayers).

In this regard, the overarching objective when considering potential interventions is to support a market structure which maximises benefits to the community.

These objectives are consistent with the core interoperability principles included in the terms of reference for the Interoperability Technical Working Group (ITWG), which was established to identify potential technology approaches for interoperability in a multi-ELNO environment,[31]

- The integrity of the land titles registry and Torrens system is maintained and confidence in digital conveyancing is further strengthened
- Interoperability promotes competition and consumer choice, including maximising the opportunities for future innovation in technology, service delivery and business models to the benefit of consumers, industry and government
- Any interoperability solution must be able to be implemented in a manner involving least disruption to industry, and must provide the optimal end-user experience in the most equitable and cost-effective manner for all parties involved, and
- Subscribers should be able to transact efficiently and securely while only subscribing to the ELNO(s) they choose.

30 Dench McClean Carlson 2019, Review of the Intergovernmental Agreement for an Electronic Conveyancing National Law, Final Report, 18 December 2019, p. 10.

31 Interoperability Technical Working Group 2020, Interoperability Technical Working Group Terms of Reference, 21 May 2020, p. 2.

Options to address market power

RISs are required to consider a range of options to achieve the policy objective and address the identified problem.[32] This generally must include the option of taking no action or maintaining the status quo.[33] In the context of the market for electronic lodgment services 'no action' and 'maintaining the status quo' are largely the same.

Other options suggested in the guidelines include:

- non-regulatory approaches like provision of information, self-regulation, quasi-regulation or co-regulation, and
- creating markets or developing market-based instruments, such as through imposing government charges or creating financial liability for the detrimental effects of an activity or performance based versus prescriptive regulatory approaches.

The requirement to consider policy options that are generally considered to be more 'light-handed' is to ensure that regulation achieves its objectives without being unnecessarily restrictive. As outlined above, the main problems that potentially warrant government action relate to anti-competitive outcomes in markets resulting in higher prices and poorer user outcomes.

Various options have been explored in detail in recent work considering the ELNO market; the intent of this analysis is to build on this work, applying a cost-benefit framework to assess previously identified feasible options. Relevant studies and working groups include:

- Nicholls 2019, *Interoperability Between ELNOs*, report by the Independent Chair of the Interoperability Working Groups, Final Report, 25 July 2019.
- Dench McClean Carlson 2019, *Review of the Intergovernmental Agreement for an Electronic Conveyancing National Law*, Final Report, 18 December 2019.
- IPART 2019, *Review of the Pricing Framework for Electronic Conveyancing Services in NSW*, Final report, November 2019.
- ACCC 2019, *ACCC report on E-conveyancing market reform*, 2 December 2019.
- Work undertaken by ARNECC considering possible models for eConveyancing market structure.
- Work undertaken for the ITWG assessing technical options for interoperability.
- Interoperability Industry Panel minutes and presentations.
- ITWG minutes and presentations.

These studies have considered options to varying levels of detail, however, none of these studies have clearly identified a specific agreed and preferred model for ELNs.[34] The

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[32] See for example, Department of the Prime Minister and Cabinet 2020, The Australian Government Guide to Regulatory Impact Analysis, Second edition.

[33] Department of the Prime Minister and Cabinet 2020, The Australian Government Guide to Regulatory Impact Analysis, Second edition.

[34] ARNECC 2019, Possible Models for the eConveyancing Market Structure, Draft Discussion Paper – Version 4A.0, 11 November 2019, p. 3.

ITWG is currently reviewing a recommended technical model to implement interoperability. This technical model has informed an option assessed as part of the CBA.

The IGA Review identified, at a higher level, a range of possible market operating models, which are:[35]

- **Multiple standalone ELNOs**. This is the current operating model and is included in the base case. This multi-homing case means that users would have to agree which ELNO to use for a transaction involving multiple users or the regulator would need to establish rules for determining which party chooses the ELN
- **Single ELNO**, operating as a monopoly with price regulation (or capturing almost all the market)
- **ELNO interoperability**. There are a range of different technical operating models which have been considered across a range of studies. These different options are likely to result in different implementation and operating costs and different outcomes from competition. Examples of the range of possible solutions are:
  - access regime, where one infrastructure ELNO provides lodgment services and infrastructure to other ELNOs. This would create a monopoly provider ('infrastructure ELNO') for back-end services, with competition occurring at the front-end amongst 'retail ELNOs'.
  - direct connection model between different ELNOs and market participants. Here both back and front-end services would be contestable.
  - connections to central information hub which is not owned by a single ELNO. Here both back and front-end services would be contestable.
  - a mixture of these options, allowing the market to transition overtime.

These options are discussed in detail below.

Status quo: Multiple stand-alone ELNOs

Maintaining the status quo would essentially involve no further government action to address market power in the market for electronic lodgment services. This option effectively involves continuing with the current market structure of multiple stand-alone ELNOs (one of the possible market structures identified in the IGA Review).[36]

In the absence of interoperability, it is not clear how the choice of ELNO would be resolved where the parties have different preferences. Possible outcomes include:

- one ELNO becomes dominant in the market as multi-party transactions default to this ELNO due to the network effects and the large subscriber base due to mandated eConveyancing in several states and first mover advantage. The dominant player would have considerable market power

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35 Dench McClean Carlson 2019, Review of the Intergovernmental Agreement for an Electronic Conveyancing National Law, Issues Paper, 13 February 2019, p. 71.

36 Dench McClean Carlson 2019, Review of the Intergovernmental Agreement for an Electronic Conveyancing National Law, Issues Paper, 13 February 2019, p. 71.

- giving one party in multi-party transactions the choice of ELNO, forcing other parties to use the same ELNO
  - this would likely result in multi-homing of subscribers (requiring conveyancers and solicitors to subscribe to multiple ELNOs), and the associated cost
  - during consultations several stakeholders indicated a reluctance to be placed in a position to force other parties to use a specific ELNO
  - during consultations the risk of ELNOs adjusting pricing schedules to favour decision makers in transactions was raised, which could have anti-competitive implications.
- allowing for the choice of ELNO to be negotiated. It is not clear how this would work, or what would occur where the parties fail to agree. We understand this would be up to industry to develop protocols to deal with this.

Monopoly model

A monopoly model was identified as a possible market structure in the IGA Review and was also raised during consultations.[37] However, with the entry of Sympli, competition in the ELNO market now exists; Sympli has already invested in building its ELN as well as lodgment and settlement infrastructure. Therefore, if a monopoly model were pursued actively by government, the ACCC believes policy makers in the various jurisdictions would also need to mandate the exit of the second ELNO and terminate other pending applications for potential ELNOs.

A monopoly model that involves mandating the exit of Sympli from the market has previously been ruled out and will not be considered as part of the CBA for the following reasons.

- The legal framework specifically left the possibility for there to be more than one ELNO and gave Registrars the power to approve ELNOs to operate.[38]
- This approach, or any proposal which would seek to unwind the emergence of competition in those jurisdictions where new entrants have emerged or entrench the monopoly service position of PEXA in those jurisdictions where competition has yet to emerge, is not supported by ACCC and jurisdictions.[39]
- Forcing Sympli out of the market would be inconsistent with the Competition Principles Agreement (see box 1.2) as this would restrict competition.

Although the option of actively pursuing a monopoly model will not be considered, one possible outcome if current regulatory arrangements were to continue, is for the market to effectively function as a monopoly, with one operator capturing all or almost all of the market due to network effects and issues around multi-homing. In this case we would not expect there to be effective competition, and the potential benefits of competition would

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37 Dench McClean Carlson 2019, Review of the Intergovernmental Agreement for an Electronic Conveyancing National Law, Issues Paper, 13 February 2019, p. 71.

38 ARNECC 2013, Introduction of the Electronic Conveyancing National Law Regulation, Regulation Impact Statement for Decision, February 2013, p. 27-28.

39 ACCC 2019, ACCC report on E-conveyancing market reform, 2 December 2019, p. 7.

not be realised. We believe that this is the likely outcome of maintaining the status quo, due to network effects preventing a second ELNO gaining large enough market share to compete effectively with the larger incumbent.

In this case, we would typically expect an enhanced price regulation framework to be introduced (see next section).

Enhanced price regulation

In markets for essential services with no (or limited) competition, prices are often regulated to prevent the monopoly (or dominant) service provider from charging excessive prices.

As noted above, a relatively 'light touch' form of price regulation already applies to ELNOs. ELNOS are free to select their starting price, after which price increases are capped by CPI each year. A more comprehensive approach to price regulation could also be considered. This would generally involve a periodic price investigation/inquiry, involving public consultation and the opportunity for ELNOs and other stakeholders to provide written submissions. This would also need to examine the considerations of cross subsidisation between large jurisdictions and the smaller less profitable ones.

ELNO interoperability models

Mandating that ELNOs are interoperable (i.e. ensuring that a transaction can proceed via eConveyancing in circumstances where the vendor and the purchaser, or related financial institutions, choose different ELNOs) would reduce the network effects and encourage more effective competition.

Establishing interoperability is the ACCC's preferred approach to enable competition in the eConveyancing market.[40] This view is shared by several stakeholders who have indicated that the absence of interoperability is likely to create barriers to entry and reduce competition.[41] These views are not universally held, in particular:

- PEXA has argued that the presence of new entrants suggests that the barriers to entry are not prohibitive[42]
- Purcell Partners (LEXTECH) does not believe that interoperability is the best way of ensuring that subscribers can choose and switch between competing ELNOs.

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40 ACCC 2019, ACCC report on E-conveyancing market reform, p. 11-19.

41 For instance see IPART 2019, Review of the Pricing Framework for Electronic Conveyancing Services in NSW, Final Report, November 2019, p. 11-12 which summarises IPART's findings but also those of submissions to the IPART review from NSW Office of Registrar General, Sympli, the Law Society of NSW and Australian Banking Association.

42 IPART 2019, Review of the Pricing Framework for Electronic Conveyancing Services in NSW, Final Report, November 2019, p. 11.

The general view of the Interoperability Working Group was that, while barriers to subscribers moving between ELNs should be addressed, interoperability should be a feature of a competitive market[43], noting again that this view is not held by all members.

There are various options to facilitate interoperability, which have been considered through the Interoperability Technical Working Group and assessed against a comprehensive set of criteria to identify the preferred option. As the various approaches to interoperability have already been assessed through a comprehensive process, only the preferred interoperability option will be included in the CBA.

A wide range of models have been considered in terms of:[44]

- their technical feasibility, including:
  - Architectural complexity
  - Workflow integration
  - Commercial off the shelf or bespoke development
  - Readily available skills
  - Data issues
  - Legacy connectivity
  - Legacy risk
  - Standards based
  - Minimise disruption in transition
- potential to promote competition, including:
  - Scalability
  - Ability to innovate
  - Ability to add/delete ELNOs
  - Barrier to entry
- security, including
  - Resilience
- costs, including:
  - Development costs
  - Operational and maintenance costs

The most recent work considering ELNO interoperability models has been a draft report prepared for the ITWG.[45] This analysis examines three technological options to deliver interoperability:

- distributed ledger technology, which would use a distributed ledger to share information

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43 Nicholls 2019, Interoperability Between ELNOs, report by the Independent Chair of the Interoperability Working Groups, Final Report, 25 July 2019, p. 24.

44 Archer, G. 2020, Analysis of Metric Weighting Survey, presented to ITWG, 12 June.

45 Archer, G. 2020, Identifying a Preferred Technology Model to Support a National Interoperable eConveyancing Marketplace, Draft prepared for the eConveyancing National Interoperability Industry Panel , 17 July.

- direct connection, providing direct connections between ELNOs
- Enterprise Service Bus (ESB), which represents a 'messaging service' that supports the secure transmission of transactions or data between multiple systems. Two ESB implementation options were considered:
  - Big Bang ESB, where an ESB would be built and developed to enable interoperability upfront
  - Phased ESB, where direct connection would be used initially, while an ESB is built tested and deployed into production. When complete stakeholders would move their multiple connections to a single connection via the ESB.

These models were assessed against 16 assessment criteria in a multi-criteria assessment, which found the Phased ESB to be the preferred technological solution.

In the cost-benefit analysis we propose to use the Phased ESB as the model of interoperability. This will inform the costs of interoperability. Note this only address transport or connectivity costs between ELNOs. In addition to this, APIs will also need to be developed, the costs of which have also been included.

Infrastructure ELNO model

Another market structure that has previously been considered involves:

- a monopoly 'infrastructure ELNO' would be responsible for financial settlement and lodging with land registries and revenue offices.
- a number of 'retail' ELNOs connected to the infrastructure ELNO would be that would provide competition and subscriber choice.

There was some interest among stakeholders in having this option formally considered in the CBA. However, as this option has previously been discounted based on principles-based arguments, it has not been fully scoped. As such, it is not entirely clear what this option involves and therefore it has not been possible to formally estimate the costs and benefits associated with this option. Nevertheless, we can provide a qualitative assessment of the likely costs and benefits relative to the preferred interoperability model.

Our discussions suggest that transitioning from the current market structure to this model is likely to involve the following steps.

- Structural separation of PEXA into:
  - the infrastructure ELNO
  - a retail ELNO based on PEXA's current user interface.
- Sympli's existing connections to land registries, state revenue offices and some banks would need to be de-commissioned.
- Both the PEXA and the Sympli user interfaces would then need to connect to the infrastructure ELNO.

Based on our discussions, the costs could include the following.

- The legal and IT costs associated with the structural separation of PEXA (some stakeholders suggested these costs could be very significant)

- If governments made the decision to force Sympli out of the 'wholesale market', it is likely that Sympli would need to be compensated (although arguably any compensation paid to Sympli would be a transfer from the government to Sympli, rather than a net cost). The amount of compensation that would be required is not clear. The total investment committed to developing Sympli is $60 million. Sympli would presumably require some proportion of their investment in compensation.
- The costs associated with both 'retail ELNOs' connecting to the infrastructure ELNO.
- The infrastructure ELNO would also need to be regulated, including prices. As such, there would be costs associated with regulation.

Although we have not been able to obtain cost estimates, it is likely that these costs would exceed the costs associated with the preferred interoperability model.

Furthermore, as Sympli has already connected to most land registries and state revenue offices, there are likely to be few savings associated with establishing a monopoly infrastructure ELNO (relative to the preferred interoperability model). On the other hand, there may be some cost savings associated with avoiding duplicating connections with banks. These savings could be in the order of several million dollars.

This option is also unlikely to realise the full benefits of competition. Given the more limited nature of competition, there may be less scope to offer the discounts currently offered by Sympli (relative to PEXA).

In summary, relative to the preferred interoperability model, this option is likely to:

- involve higher costs; and
- lower benefits.

From a principles perspective, many of the same arguments apply to this model as for the monopoly model discussed above. That said, a market structure involving monopoly providers in some segments of the supply chain and competition in others is not uncommon (e.g. electricity, telcos). However, this generally occurs where some segments of the supply chain are a 'natural monopoly' and therefore competition is unlikely to emerge. The entry of Sympli demonstrates that this market is not a natural monopoly. From a principles perspective, the case for a market structure involving a monopoly provider therefore seems weak.

Other options

A potential third entrant has proposed an alternative market model and technological solution to facilitate competition in the market. This solution has not been approved by ARNECC, and is not considered in this study.

Summary of options considered in the CBA

Based on the discussion above, the options to be considered in the CBA are as follows.

- Maintaining the status quo (i.e. no further action to address market power in the market for electronic lodgment services), this is the base case. Two base cases are

considered, a central base case where one ELNO dominates the market, an alternative base case where multi-homing occurs and there is some competition between ELNOs. The base case is discussed further in chapter 5.

- Mandating interoperability to facilitate effective competition by a phased ESB, which would see:
  - a direct connection between PEXA and Sympli to enable interoperability in the short term
  - the establishment of an ESB to replace the direct connection between ELNOs
  - the direct connections between ELNOs and related parties potentially migrating to the ESB at some point in the future
  - development of APIs which could be migrated from direct connection to an ESB.
- A more comprehensive approach to price regulation, replacing the current 'light touch' price regulation in the MORs.

4 Cost-benefit analysis framework

Overview of cost-benefit analysis

The options to increase competition are assessed using a cost-benefit analysis (CBA). This evaluates whether benefits to society arising from the options evaluated outweigh the costs.

CBA is a commonly used tool to evaluate projects or policy decisions by quantifying and valuing changes compared to the existing policy position (i.e. base case). The CBA framework focuses on the 'welfare' of the community – the option that delivers the highest net social welfare compared to the status quo is considered to be the best option for society.

CBA does not provide the *optimal* solution but instead evaluates the alternative options presented. Further, the reliability of the conclusions also depends on the extent to which the major impacts can be robustly quantified. For instance, the conclusions of this analysis depend on the expect impacts of increased competition in the market for ELNs, which is uncertain. To account for this uncertainty, we have:

- investigated the impacts of competition in other markets and considering how these outcomes may apply to the market for ELNs
- undertaken sensitivity analysis to consider how the assumed impacts of competition effect the results of the analysis.

Several CBA guidelines are available, which generally outline the same principles. This analysis has been developed based on the NSW Treasury CBA guidelines.[46] The key steps in a CBA are set out in box 4.1.

46 NSW Treasury 2017, NSW Government Guide for Cost-Benefit Analysis

4.1 Key steps in a CBA

- **Articulating the decision that the CBA is seeking to evaluate**. For example, in relation to options considered in this study, the decision relates to whether interoperability between ELNOs should be facilitated, and which model of interoperability is preferred. The way in which the CBA is framed and the information requirements will differ depending on the decision being evaluated.
- **Establishing the base case** against which to assess the potential economic impacts of changes. For this study, the base case will describe the market for eConveyancing in the absence of interoperability and associated regulation.
- **Quantifying the changes** from the base case resulting from the possible scenarios being considered. This focuses on the incremental changes resulting from the decision, such as changes in market shares of ELNOs, prices, product innovation and regulatory arrangements.
- **Placing values on the changes** and aggregating these values in a consistent manner to assess the outcomes.
- **Generating the Net Present Value (NPV) of the future net benefits stream**, using an appropriate discount rate, and deciding on the Decision Rule on which to assess the different options. The best decision rule is to choose the scenario that has the highest net benefits.
- **Undertaking sensitivity analysis** on a key range of variables, given the uncertainties related to specific benefits and costs.

CBA modelling approach

CBA aims to frame the costs and benefits of the policy options, including all relevant costs and benefits that can be quantified, while making a qualitative evaluation of those impacts, which are potentially significant but cannot be measured.

The impact of the policy options focuses mainly on the benefits from competition and costs required to facilitate competition:

- Change in economic welfare from lower prices for conveyancing. This is the economic welfare gain from moving prices closer to marginal cost, which is also known as reduced dead-weight loss. This includes
  - an initial reduction in PEXA's prices due to competition
  - ongoing price reductions, arising from innovation through time
- Change in economic welfare from product innovation. This is measured as the change in time taken for conveyancers and solicitors to complete transfers due to improvement in ELNO interfaces. Products may improve in other ways, however it is uncertain what form these future improvements could take.
- There may be other benefits for an interoperable ELN market, such as improved market resilience which has been identified by several stakeholders, however these are not quantified in the analysis.

- Capital and operating costs of ELNOs associated with the options. This includes:
  - the capital costs of enabling interoperability between ELNOs. This is related to developing a direct connection between PEXA and Sympli as well as the cost of ELNOs adjusting their internal operations to accommodate interoperability and later moving to an ESB. This includes the costs of APIs between ELNOs.
  - incremental operating costs from maintaining and testing connections with the other ELNO and other related parties, and the cost of maintaining subscribers (in some cases there will be an incremental cost saving, where the number of subscribers change).
- Capital and operating costs of an ESB to operate between the two ELNOs, in lieu of a direct connection.
- Capital and operating costs for related parties, which include land registries, banks revenue offices and regulators. We expect capital costs for related parties to be significantly smaller than the costs to ELNOs to deliver interoperability. Almost all of the costs faced by related parties for eConveyancing are related to the entry of a new ELNO, which for Sympli costs are sunk or are also incurred in the base case. In the analysis of interoperability we only measure costs which would not occur in the base case. Operating costs include the cost for testing product updates, which may increase due to interoperability, as well as the costs of price regulation for the enhanced price regulation option.

In evaluating the economic viability of the project, a CBA is agnostic as to how benefits are distributed across society. For instance, in the headline CBA results we do not differentiate between $1 of benefit derived by an ELNO from $1 of benefit derived by a conveyancer or solicitor.

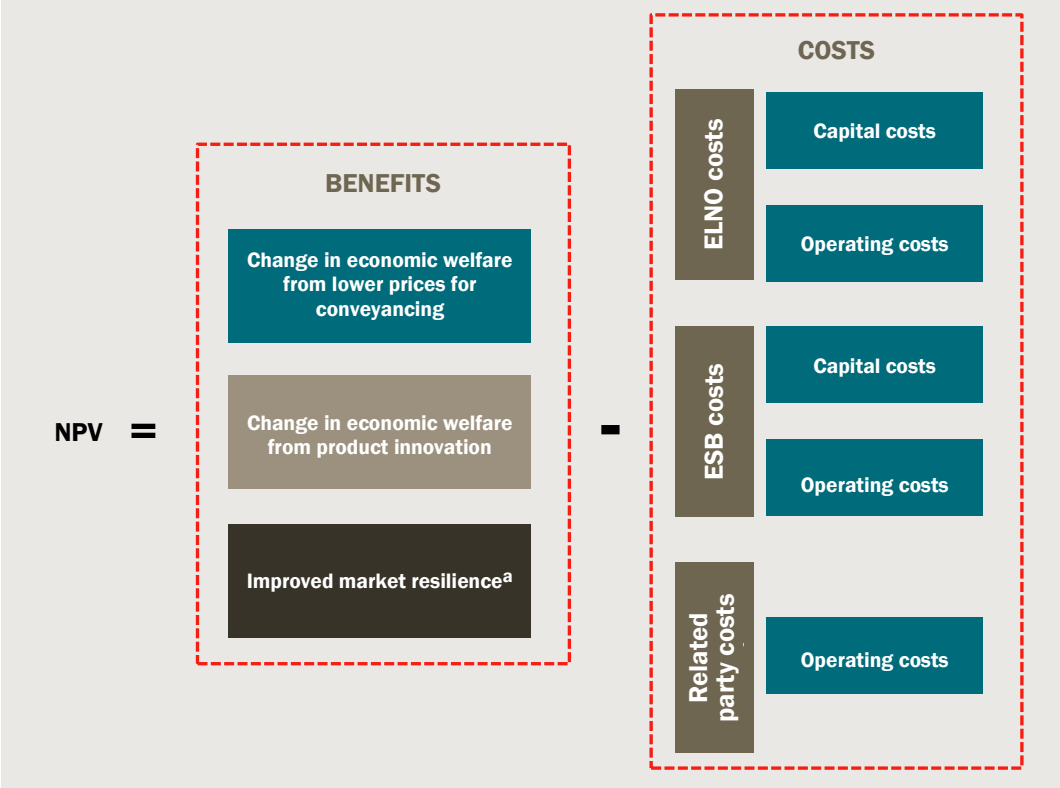
Although CBA is primarily concerned with change in social welfare, competition policy is also focused on protecting consumers, so understanding how these groups are affected is an important part of the analysis.[47] Distributional impacts, which separately identify the impact on consumer from changes in prices, are reported as part of the results.

The incremental benefits of the project options are compared against the capital costs and incremental change in operating costs. It is common to express these results as a benefit-cost ratio (present value of benefits divided by present value of costs). However, this is not possible where the present value of costs is negative or zero, as is the case with enhanced price regulation option, and the interoperability option compared to the alternative based case. The analysis of results therefore focuses on the net benefits of options compared to the base case (the present value of benefits less the present value of costs). Options with a positive net benefit will be preferable to the base case and the option with the highest net benefit will deliver the greatest benefit to society, noting distributional impacts may also be factored into the decision-making process.

This approach is summarised in table 4.2.

47 NSW Treasury 2017, NSW Government Guide for Cost-Benefit Analysis, p. 53.

4.2 Cost benefit analysis methodology



[a] Not quantified in the CBA.

Data source: CIE.

CBA parameters

Cost-benefit analysis (CBA) generally involves estimating a stream of costs and benefits over time and then discounting these values back to the present value. The CBA results vary depending on the parameters of the analysis, such as the time period and the discount rate.

As implementing interoperability is likely to involve a substantial upfront cost and a stream of future benefits, the choice of time period and discount rate are potentially important.

- The CBA evaluates benefits and costs to the whole of Australia.
- The options are evaluated over a 10-year period from 2021 to 2030. This was chosen as it is broadly consistent with the indicative life of technological solutions and RIS guidelines:
  - Consultations indicated the life of a particular technical solution is generally considered to be around 5-7 years. However, the benefits of interoperability (as distinct from the particular technological solution to implement interoperability) are likely to extend beyond the life of the technological solution.
  - Regulatory impact analyses typically use a 5- or 10-year timeframe. Where there are substantial upfront costs, a longer timeframe is generally preferred.

A residual value for capital investments is not included.

- For the interoperability option, capital costs are incurred in 2021, and benefits are realised from 2022 onwards.
- We have used a 7 per cent discount rate with sensitivity tests for 3 and 10 per cent.
- Costs and benefits are measured in real terms and expressed in 2019 dollars.
- We have not assumed any real cost escalation – operating costs and benefits are assumed to grow in line with inflation.

Establishing the base case

A key element of a CBA is to establish a base case against which the policy options are assessed. We use the option of continuing with current regulatory arrangements as the base case against which the other options (interoperability and price regulation) are assessed.

If the other options considered are estimated to impose a net cost on the community relative to the base case, this implies that the base case is the preferred option.

A key challenge relating to the market for ELNO services is that the market is young and not fully developed and how the market will evolve under current regulatory arrangements is not known. There are broadly two possible base cases.

1 A 'central base case', where there is no effective competition in the market for electronic lodgment services.

2 An alternative base case, where a competitive market for electronic lodgment services emerges, but some (or all) practices subscribe to multiple ELNOs.

The base case specification is discussed in further detail below.

Central base case: no effective competition

The most likely base case scenario (i.e. in the absence of interoperability) is a market without sufficiently strong competition to address the market power issues. Note that this does not necessarily mean that Sympli leaves the market. It could mean that Sympli remains in the market, but is unable to capture enough market share to curb PEXA's market power.

- Given the network effects, both the ACCC and IPART[48] considered that interoperability is essential for effective competition in the market for electronic lodgment services to emerge. The ACCC indicated that without changes, the market will remain a near monopoly due to the PEXA's strong network effects and the costs of multi-homing.[49]

48 IPART 2019, Review of the Pricing Framework for Electronic Conveyancing Services in NSW, Final Report, November 2019, p. 8.

49 ACCC 2019, ACCC report on E-conveyancing market reform, 2 December 2019, p. 12.

- As discussed above, network effects are recognised in the literature as a significant barrier to effective competition. Network effects can cause markets to become a 'winner takes all' (or nearly all) market.[50]
  - When network effects are significant, individual users will be reluctant to switch to a competitor, even if it is superior.[51]
  - Network effects, if captured by a single firm, make it hard for rivals to offer services of comparable value to that provided by the dominant firm.[52]
- During consultations, the general view of stakeholders was that effective competition is unlikely without interoperability (although we also encountered the alternative view that Sympli is likely to compete effectively without interoperability).

For our analysis we assume that Sympli capture 5 per cent of the market and PEXA and Sympli's prices remain fixed in real terms over the evaluation period. If Sympli achieves a lower market share under the base case (as suggested by some stakeholders), the benefits of interoperability in the CBA will increase.

Alternative base case: multi-homing of users

In a market with multiple ELNOs and no interoperability, it is not clear how transactions would proceed in the event that the parties to a transaction have a different preferred ELNO. This is likely to depend on:

- Whether eConveyancing is mandatory in the relevant jurisdiction:
  - in jurisdictions where eConveyancing is not mandatory, some transactions may default to a paper-based transaction, or more generally, the presence of multiple ELNOs could slow (or limit) the uptake of eConveyancing (i.e. the network effects could be reduced in a market with multiple ELNOs, reducing the incentive for practices to adopt eConveyancing).[53]
  - in jurisdictions where eConveyancing is mandatory, there will be no option to default to a paper-based transaction, so the choice of ELNO will need to somehow be resolved.
- The rules governing the choice of ELNO where the parties have a different preference — for example, if either party is given the power to choose the ELNO, this is likely to mean that all practices would need to support both ELNOs (as each practice would need to be able to accommodate the choice made by the other party).

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50 Jamison, M. 2012, Methods for Increasing Competition in Telecommunications Markets, Public Utility Research Centeer, University of Florida, p. 11.

51 Jarsulic, M. Gurwitz, E. and Schwartz, A., *Towards a Robust Competition Policy*, Centre for American Progress, 3 April 2019, https://www.americanprogress.org/issues/economy/reports/2019/04/03/467613/toward-robust-competition-policy/

52 Jamison, M. 2012, Methods for Increasing Competition in Telecommunications Markets, Public Utility Research Centeer, University of Florida, pp. 2-3.

53 Reduced uptake of eConveyancing would be a negative result given previous studies have established eConveyancing has net benefits compared to paper conveyancing.

We assume that this outcome is only likely under a scenario where one party is given the choice of ELNO, which would require all conveyancers and solicitors will be required to subscribe to both ELNOs. This would see the costs of subscribing to an ELNO for conveyancers and solicitors, which includes ongoing training and management, being incurred twice where two ELNOs operate. Similarly, each ELNOs will incur the costs of managing the entire pool of potential subscribers but will only capture some fraction of the eConveyancing market.

As all conveyancers and solicitors undertaking conveyancing work would need to subscribe to both ELNOs, the barriers to effective competition would below. Under this scenario, we assume that if this were the case PEXA would account for 70 per cent of the eConveyancing market due to its first mover advantage, with Sympli capturing the remainder of the market (this is the same assumption we make on market share under interoperability). The market shares have been selected for modelling purposes and are highly uncertain and multi-homing may not result in effective competition.

The competitive outcome where multi-homing eventuates is uncertain. Choice is an important aspect of competition. However, under the scenario where one party is given the power to choose the ELNO as assumed (as we consider that widespread multi-homing is unlikely without such an assumption), the other parties to the transaction do not have choice.

It is therefore unclear whether this scenario would deliver effective competition. However, for modelling purposes we assume that this option achieves the same benefits from competition as interoperability. The key difference is therefore under interoperability, the costs associated with multi-homing could be avoided.

The impacts of interoperability will be assessed against this base case as part of sensitivity testing.

The impacts of options for addressing market power

Table 4.3 summarises the potential impacts of interoperability against the alternative base cases considered. These impacts (costs and benefits) are discussed further below.

4.3 Potential impacts of options

Option	Benefits	Costs of interoperability
Option 1: Preferred interoperability model	▪ PEXA prices 7.5 per cent lower for eConveyancing services ▪ Better quality of service – 3 minute time saving for conveyancers and solicitors per property transfer in the first year of interoperability and 1 minute each subsequent year ▪ More innovation/productivity — over time, this would lead to: – lower future prices – PEXA prices continue to fall by 0.5 per cent in real terms per year – better future quality of service – times saving noted above ▪ Increased market resilience due to multiple ELNOs (not quantified)	▪ Cost of leasing or developing infrastructure and ongoing maintenance to support the ESB option (it is currently not clear who would facilitate undertake manage the ESB). ▪ **Costs to ELNOs**: – Cost of API development borne by ELNOs to ensure interoperability. – Cost of subsequently migrating to ESB. – Costs of additional insurance for interoperability – Increased costs of testing new product updates ▪ **Cost to banks**: – Increased costs of testing new product updates – Cost of contractual changes (where current contracts refer specifically to PEXA) ▪ **Cost to state revenue offices**: – Increased costs of testing new product updates ▪ **Cost to lands titles offices**: – Increased costs of testing new product updates
Option 2: Price regulation	▪ Lower prices for electronic lodgment services, noting potential limitations on price regulation (prices may not be as low as in a competitive market). – Assume price regulation realises 30 per cent of the price benefits of competition (i.e. price decrease by 2.25 per cent with regulation, and prices falling by 0.15 per cent each year	▪ Cost of price regulation (i.e. the costs incurred by a price regulator, ELNOs and related parties).

Note: Note the cost associated with Sympli entering the market, such as the costs of establishing direct connections with related parties, have already been incurred or are assumed to also occur in the base case.

Source: CIE based on discussions with industry stakeholders.

Valuing changes

A discussion of the approach to valuing benefits is provided in chapter 6, and detailed information is provided in the CBA technical report (appendix A).

Costs have been informed by a variety of sources:

- previous work by AECOM, prepared for IPART, estimating the costs of various models for ELNO interoperability[54]
- IPART price determination from their review of eConveyancing services in NSW[55]
- submissions from stakeholders to IPART's review, in particular, submissions by PEXA[56], used to inform the cost of interoperability, and the NSW Government[57]
- other public consultant reports, in particular a report by Deloitte[58]
- consultations with stakeholders, these cost estimates were used to validate the costs included in the model.

Where cost information was not available, costs have been estimated.

Detailed information on cost assumptions is provided in the CBA technical report (appendix A).

54 AECOM 2019, Estimating costs of electronic conveyancing services in NSW, prepared for IPART.

55 IPART 2019, Review of the Pricing Framework for Electronic Conveyancing Services in NSW, Final report.

56 PEXA 2019, Response to IPART Draft Report; Review of the Pricing Framework for electronic conveyancing services in NSW.

57 NSW Government 2019, NSW Government's response to draft report on the Pricing framework for eConveyancing services in NSW.

58 Deloitte 2018, The future of the Australian conveyancing industry 2025 and 2030.

5 Estimating the impacts of interoperability

Estimating the benefits of interoperability

Interoperability would allow ELNOs to share the network effects and facilitate competition.[59] The benefits of interoperability are the benefits from effective competition – the ACCC previously concluded that interoperability is the preferred approach to enable effective competition in the market for ELNs.[60]

The potential benefits of a more competitive market could include:

- Lower prices for electronic lodgment services
- Better quality of service
- More innovation/productivity — over time, this would lead to:
  - lower future prices
  - better future quality of service.
- Greater system resilience.

In the following section we describe the methodology for measuring these benefits.

Valuing the economic efficiency benefits of lower prices

A key expected benefit of a competitive market for ELNOs is that prices are likely to be lower relative to a market without effective competition.

Approach to valuing the net benefits of lower prices

Although lower prices for end-users is generally seen as a desired outcome of pro-competition reforms, in a CBA framework lower prices are partly a transfer from ELNOs (specifically the ELNO with market power) to the end user (i.e. the benefit to the end user is offset by losses to ELNOs). Transfers between stakeholders do not necessarily result in a change in social welfare. For instance:

- $1 is taken from person A and given to person B
- there is no change in societal welfare, as in aggregate the loss of person A is exactly offset by the gain of person B.

That said, unnecessarily high prices for electronic lodgment services (as with other goods and services) also has some broader efficiency implications. In particular, higher prices

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59 Jamison, M. 2012, Methods for Increasing Competition in Telecommunications Markets, Public Utility Research Centeer, University of Florida, p. 13.

60 ACCC 2019, ACCC report on E-conveyancing market reform, p. 11.

increase the cost of conveyancing transactions. For property transfers, this is similar to the economic impact of stamp duty. The additional costs completing a transaction in an environment of low competition can be thought of as a tax on that transaction, like stamp duty (although the additional revenue raised would go to the incumbent ELNO with market power, rather than the government).

The marginal excess burden (MEB) is a measure of the efficiency cost to the economy for each additional dollar of revenue raised. MEB is the economic cost of increasing a tax by $1. There are several credible studies that estimate the MEB for a range of Australian taxes, including stamp duties on conveyances (table 5.1).

5.1 Relative efficiency of selected taxes (descending order), by study

KPMG Econtech [a]		KPMG Econtech		Commonwealth Treasury	
2010	MEB [b]	2011	MEB [b]	2015	MEB [b]
Municipal rates	0.02	Land tax	0.09	Broad based land tax	-0.1
GST	0.08	GST	0.12	Personal income tax (labour & capital)	0.16
Land taxes	0.08	Personal income tax	0.24	Broad based GST	0.17
Labour income tax	0.24	Motor vehicle stamp duty	0.33	Current GST	0.19
Conveyancing stamp duties	0.34	Payroll tax	0.35	Labour income tax	0.21
Motor vehicle stamp duties	0.38	Company tax	0.37	Company tax	0.50
Corporate income tax	0.40	Commercial transfer duty	0.74	Stamp duty on conveyances	0.72
Payroll tax	0.41	Residential transfer duty	0.85		

[a] Modelling and results were prepared for and incorporated into the Henry Tax Review

[b] Marginal excess burden is the cost of the tax due to changing it by a small amount (usually such that total government revenue increases by $1.

Note: In all studies, all taxes are imposed at the Federal level. That is, no taxes create a distortion that sees economic resources move across state borders within Australia

Sources: KPMG Econtech 2010, CGE analysis of the current Australian tax system, prepared for Department of Treasury, 26 March; KPMG Econtech 2011, Economic analysis of the impacts of using GST to reform taxes; Australian Treasury 2015, Understanding the economy-wide efficiency and incidence of major Australian taxes.

Estimates on the MEB of stamp duties range between 34 cents for every dollar of revenue collected and 85 cents for every dollar of revenue collected.

This is likely to be a reasonable indicator of the broader efficiency impacts of higher than necessary prices for electronic lodgment services. That said, these efficiency costs would only apply to the extent that prices in a market with limited competition exceed the efficient level (the remaining costs are a real resource cost of the transaction).

For this analysis we use the average of MEB of stamp duty estimates from the above studies, which gives a MEB of $0.64 per $1 prices exceed the efficient level. Sensitivity testing is conduced examining the impact of lower and higher MEB rates on the

economic analysis. For instance, using a lower parameter does not affect the conclusion that interoperability is the preferred market structure.

The impact of competition on prices

Evidence from the case studies suggests that in most industries reviewed, the introduction of competition has significantly decreased prices.

- The introduction of competition in equities trading services reduced prices significantly (see chapter 11 for details) through both:
  - lower prices offered by the new entrant
  - the incumbent provider significantly reducing prices in response to competition from the new entrant.
- The introduction of ridesharing has given passengers the option to use a lower cost service that offers better customer experience (see chapter 9)
- Additional competition in the Australian retail market has reduced retail margins and improved productivity (see chapter 10 for details).

There are, however, notable exceptions. Retail competition has failed to put downward pressure on retail electricity prices. However, this appears to be due to the specific characteristics of that market, which are unlikely to apply here. In particular:

- the complexity of price offers makes it difficult for consumers to understand what offer is most likely to lead to lower electricity bills
- as electricity is generally a homogenous product (and reliability requirements are regulated), there is little scope to compete over product quality.

In the market for electronic lodgment services, evidence on the extent to which the prices currently charged by the incumbent exceed an efficient level is mixed.

- IPART found that PEXA's current prices were reasonable compared to the modelled scenarios and considered PEXA's prices as an appropriate maximum for any ELNO in the short term.
- On the other hand, the new entrant is proposing prices that are between 10 to 50 per cent lower than the prices charged by the incumbent (see appendix B). Given the MORs prevent Sympli from increasing prices by more than CPI, this implies that an ELNO can provide eConveyancing services at a significantly lower price than the maximum price specified by IPART and make a suitable return for shareholders.
- The price paid for PEXA in 2018 compared to the capital investment to create the business may provide some insight into the extent of market power. The price the government and other founding shareholders received reflects the future expected profits of the company. If the company is privatised as a monopoly or with a large amount of market power, enabling prices to be set greater than marginal costs, the expected profits from the sale of the business will be large resulting in a large sale

price. The opposite will be true where a government owned business is established in a competitive market.[61] In the case of PEXA:

- in 2018 PEXA was sold for $1.6 billion[62], following equity investment of around $400 million over eight years.[63]
- If prices are efficient and cost reflective (which consists of the costs of providing ELN services plus a reasonable return[64] on capital for the initial equity investment), we would expect the value of PEXA to be close to the initial equity investment. The large difference between the company's valuation and capital investment may suggest that PEXA has market power and is able to consistently charge prices in excess of costs and a reasonable return on capital.

We base the price impacts of competition on PEXA's pricing on the difference between PEXA's and Sympli's price structure. In particular, we assume that competition reduces PEXA's prices by 7.5 per cent, which is around half of the percentage difference between Sympli's and PEXA's prices. We have made this assumption recognising that PEXA has a first mover advantage and that price is not the only way ELNOs may compete. This assumption is assessed in the sensitivity analysis.

This assumption is broadly consistent with the impact that the introduction of competition had on the incumbent's pricing in the market for equity trading services (i.e. competition put downward pressure on the incumbent's prices).

The **net** efficiency gains (i.e. the benefit) from lower prices would be calculated as follows:

$$Net\ benefit = (P_i - P_n) \times MEB \times N$$

Where: P_i is the current price charged by the incumbent; P_n is the proposed price of the new entrant; MEB is an estimate of the marginal excess burden of stamp duties (see above); and N is the number of eConveyancing transactions.

One potential critique of this approach is that the change in ELNO prices as a result of competition are likely to be relatively modest compared to stamp duty (for example a 10 per cent decrease in PEXA's price for a single title transfer would result in a saving of $8.56 per transaction for each subscriber) which may imply the benefit from avoided distortion is smaller than a change in stamp duty. To account for this issue, we have explicitly used the *marginal* excess burden of taxation, which is the measure of economic distortion of an extra $1 of stamp duty. Given this, we do not believe this is a material problem for the methodology.

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61 King, S 2014, A privatised monopoly is still a monopoly, and consumers pay the price, https://theconversation.com/a-privatised-monopoly-is-still-a-monopoly-and-consumers-pay-the-price-28384.

62 https://www.afr.com/companies/financial-services/cba-link-group-morgan-stanley-consortium-win-pexa-warn-competitors-barrier-to-entry-is-high-20181106-h17jpt

63 https://www.afr.com/chanticleer/pexas-16b-sale-raises-concerns-among-bankers-20181106-h17ktx

64 For regulated business, this rate of return is normally the regulated business's weighted average cost of capital.

Another issue with our approach is that across all conveyancing transactions, only a fraction of ELNO costs are borne by purchasers of dwellings and therefore strictly comparable to stamp duty as a tax on the purchase of a dwelling. Chart 5.2 shows the potential number of transactions for which ELNOs can charge fees, of which 38 per cent will be paid for by buyers. As the remaining fees are not equivalent to a tax on purchasing a property, the MEB of stamp duty may not appropriately measure the economic benefit of reduced prices.

5.2 The potential number of time fees can be charged by ELNOs, 2020

	Transaction	Share of transactions
	No.	Per cent
Transfers (buyers)	688 109	19.2
Mortgage (buyer)	688 109	19.2
Transfer (seller)	688 109	19.2
Mortgage discharge (buyer)	688 109	19.2
Mortgage (refinance)	117 717	3.3
Mortgage discharge (refinance)	117 717	3.3
Mortgage discharge (end of mortgage)	64 230	1.8
Other	539 358	15.0
Total	**3 591 459**	

Note: This is based on the current pricing structure of ELNOs, which we understand are the same. This analysis assumes all dwelling purchases include a mortgage and all sales include a mortgage discharge. This is an upper bound estimate.

Source: State and Territory LRS. CIE.

For the other transaction types, there is limited evidence around the distortionary impact of price changes for these transactions. For instance, we could not find any evidence around the MEB of stamp duty on mortgages, which previously was paid when refinancing a mortgage – previous studies have focused on the stamp duty related to property transfers.

The key question for our analysis is whether taxing these other parties has a smaller or larger distortionary impact, than a tax on property purchases. This is not clear, for example:

- increasing the cost of refinancing a mortgage may result in a larger distortion if the cost savings from refinancing are relatively small
- increasing the cost of discharging a mortgage at the end of a mortgage may have a smaller distortion as at the conclusion of a mortgage this is inevitable.

Recognising this issue and the absence of evidence supporting an alternative MEB measure, we have used the same MEB across all transactions. This assumption is evaluated in sensitivity testing with benefits only measured for fees which increase the cost of purchasing a dwelling. Applying this benefit only to these transactions does not affect the conclusion that interoperability is the preferred market structure.

Distributional impacts of competition

Although cost-benefit analysis is primarily concerned with change in social welfare, competition policy is also focused around protecting consumers. The ACCC's purpose is "making markets work for consumers, now and in the future". In this context, even if a reduction in prices did not result in a net economic benefit but entirely represented a transfer from producers to consumers – there could still be a rationale to increase competition. This goes to the objective of interoperability to minimise costs for consumers and ensure that consumers benefit from innovation in the sector, as opposed to these benefits being captured by ELNOs. Similarly, the NSW Treasury CBA guidelines note that assessing the distributional impacts are an important aspect of a compete economic analysis.[65]

Although only part of the price change is measured in the CBA, the total impact on consumers from changes in prices is reported as part of the results. This shows the total monetary impact on consumers from the price reductions envisioned with increased competition.

Valuing the service quality benefits

One of the theoretical benefits of increased competition is better service quality. Evidence from the case study industries, suggest that the introduction of competition has improved service quality, including on-demand transport and equities trading.

One aspect of service quality in the context of eConveyancing is security, which is discussed below. Other aspects of service quality could include:

- the 'user friendliness' of the user interface (i.e. simple to use, well-organised, intuitive and reliable)
- the ease of integrating the ELNO platform into practice management software
- customer support, including 'on-boarding' processes and ongoing support.

An ELNO that is more 'user-friendly' could reduce the time to complete a transaction. In principle, 'time saving' benefits can be quantified as follows:

$$Benefit = T \times W \times N$$

Where: T is the estimated time saving per transaction (in hours or minutes); W is the wage rate of the person whose time is saved (i.e. the conveyancer); and N is the number of eConveyancing transactions.

Stakeholders had mixed views on the impact of interoperability on service quality.

- Sympli provided evidence from their testing on the potential time savings from the improved user interface. The evidence provided by Sympli suggesting that their user interface could save time was corroborated by independent stakeholders (albeit qualitatively).
- Other stakeholders noted that PEXA had also been making improvements to the user interface and these improvements could not be attributed to interoperability. Another

65 NSW Treasury 2017, NSW Government Guide for Cost-Benefit Analysis, p. 53.

view was that the improvements that PEXA has made has been in response to competition from Sympli.

Weighing up the evidence from case studies and the views of stakeholders, we consider it likely that more effective competition through mandating interoperability is likely to encourage ELNOs to improve the quality of service provided.

We have assumed that interoperability results in a time saving of 3 minutes per transfer (for the buyer's and seller's respective conveyancer or solicitor) in the first year of interoperability and 1 minute each sequent year.

We also note that we not measured other aspects of innovation that may be valuable to stakeholders, which may suggest that this benefit conservative. These unquantified benefits include:

- Improved customer experience, from the ELNO processes being more user-friendly
- Improved user interfaces which may allow users to delegate tasks to more junior, lower cost, staff

Improved risk management from workflow management features which may help organisations better manage risks and reduce time spent rectifying errors.

Valuing the benefits of innovation

Competition is a key driver of innovation. We would therefore expect to see more innovation and associated productivity improvements in a market with effective competition. A joint study by the Productivity Commission and the ABS investigated the relationship between product competition and innovation using firm-level data, finding that stronger competition is associated with a higher propensity for firms to innovate.[66]

Innovation is not necessarily an 'end' in itself. Rather, it is a 'means to an end'; a process that over time could deliver benefits to users, such as:

- lower prices (relative the baseline);
- ongoing improvements in service quality.

The approach to estimating these benefits is outlined above. However, the magnitude of these benefits could increase over time with ongoing innovation leading to productivity improvements.

Greater resilience

Several stakeholders have identified greater 'resilience' as a benefit of a multi-ELNO market. Resilience refers to the capacity for transactions to proceed in the event that an ELNO becomes unable to operate.

An ELNO may be unable to operate:

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66 Soames, L. Brunker, D. and Talgaswatta, T. Competition, Innovation and Productivity in Australian Businesses, Research Paper, September 2011, p. 1.

- Temporarily — if an ELNO is temporarily unable to operate, presumably urgent transactions could proceed through an alternative ELNO. In this case, conveyancers and solicitors would either need to sign up to the other ELNO quickly or use a settlement agent to enable a transaction to proceed. Alternatively, in an interoperable market, with two ELNOs party to transaction, if one ELNO goes down the remaining functional ELNO may be able to complete the transaction.
- Permanently — if in a market with a single ELNO, that ELNO chose to exit the market (due to insolvency for example), electronic transactions would be unable to proceed. That said, insolvency seems unlikely in a market where there is only one ELNO. Where eConveyancing has been mandated and paper conveyancing is no longer possible, this would have severe impacts on the property market.

Various stakeholders see the increased resilience provided by interoperability and more than one ELNO as an improvement to the market.

We have not been able to value this benefit, as the probability that an ELNO would be unable to operate for an extended period of time is uncertain.

Estimating the costs of interoperability

The costs associated with introducing interoperability will depend on:

- the details of the technological solution that facilitates interoperability – the recommendation of the working group is a phased ESB model which consists of:
  - a direct connection between PEXA and Sympli to enable interoperability in the short term
  - the establishment of an ESB to replace the direct connection between ELNOs
  - the direct connections between ELNOs and related parties potentially migrating to the ESB at some point in the future. This is not included in this analysis.
- the number of ELNOs to enter the market – some 'related parties' have noted that the costs associated with connecting to multiple ELNOs could be significantly higher in a market with 3 or more ELNOs, compared with 2 ELNOs. For this analysis we focus on the case of two ELNOs, as this is the current market structure and it is uncertain when or if a third ELNO might enter the market. Note we do not believe the current phased ESB model would affect the cost of a third ELNO entering the market.

Cost assumptions have been informed by range of estimates, published in a range of studies. Consultations with stakeholders has also been used to confirm and validate cost estimates.

Cost assumptions are detailed in appendix A.

Costs for ELNOs

We understand that under the proposed phased ESB model the technical model would proceed as follows:

- initially the two existing ELNOs would first establish a direct connection to allow competition to proceed as soon as possible
- an ESB that facilitates interoperability between the ELNOs (including for subsequent entrants) would subsequently be established. The direct connections between ELNOs would migrate to the ESB, however all direct connections to related parties would remain intact (i.e. banks would not communicate with ELNOs via the ESB during this stage but rather via direct connections)

Related parties could at some point in the future connect to the ESB, so that all interactions amongst ELNOs, and between ELNOs and related parties would be carried over the ESB (excluding payments) and there would be no need for direct connections. This is not in the scope of the phased ESB model considered.

Based on our current understanding, ELNOs would incur the following costs:

- the cost of establishing a direct connection and supporting APIs
- the cost of subsequently migrating to the ESB, to which the APIs developed for direct connection could be migrated with some modest additional cost
- the increased costs of testing new product updates. When ELNOs release new product updates, testing is required with related parties to ensure functionality; we understand that interoperability may make this more complicated, increasing costs for ELNOs and related parties
- increased insurance costs. The ITWG has been considering how interoperability may impact on insurance costs of ELNOs. Preliminary indications are that additional insurance costs are expected to result in an incremental increase in costs, involving and adjustment to each ELNO's insurance package.

Costs to related parties

Related parties include:

- Banks
- Land registries
- State revenue offices.

Depending on the model, there may also be costs incurred by related parties, which include:

  - Increased costs of testing new product updates
  - Cost of contractual changes, in particular for banks where current contracts refer specifically to PEXA (under interoperability these would need to refer to ELNOs in general.)

The following costs were considered, but were not included in the CBA:

- Related parties could incur a cost associated with connecting to new ELNOs. However, these costs are associated with competition, rather than interoperability. In the case of Sympli, these costs are sunk or are likely to occur in the base case, as related parties have already or are likely to connect to Sympli in the base case. These

costs can therefore be excluded from the CBA. If a third ELNO were to enter, these costs would need to be included in the analysis (this is not modelled).

- There may also be costs for related parties associated with migrating to the ESB. This would enable easier entry of future ELNOs, helping to prevent a duopoly becoming entrenched, and technical advisors have indicated this may provide advantages for related parties over direct connections with ELNOs. This has not been included in the modelling as the costs are uncertain given technical requirements have not fully investigated by stakeholders.

The cost of building and operating the ESB infrastructure

Under the preferred model, there would be a cost involved in building the ESB infrastructure. There would also be ongoing costs associated with operating this infrastructure.

We understand that it has not yet been established who would bear these costs, so these costs have been identified separately.

Other potential costs associated with interoperability

In addition to the costs outlined above, increased dispute resolution and litigation costs have been identified by stakeholders as a potential cost of interoperability. These costs could cover disputes between ELNOs, Registries, SROs, ESB operators and financial institutions.

It is not clear to what extent interoperability would increase the frequency of disputes and litigation compared to eConveyancing. We understand that the main risk of disputes arises from instances of fraud, of which there have been limited instances. There may also be an increase in disputes related to connectivity issues, either between ELNOs or between an ELNO and ESB operator.

Advisors have indicated that the low risk, mainly as a result of various mechanisms in eConveyancing to avoid identity fraud, may not be materially increased under interoperability. For instance, a key risk is negligence in onboarding a fraudulent subscriber; this risk exists without interoperability and is already covered by ELNOs' professional indemnity insurance

Time series of modelled costs

The assumed capital costs by stakeholder is shown in table 5.3.

Almost all of the capital costs are expected to be incurred by the private sector. The main capital costs of interoperability are the costs to PEXA and Sympli in developing a direct connection in 2021 and making changes to their internal systems to accommodate interoperability.

In 2025 costs are incurred associated with developing the ESB and connecting both ELNOs to the ESB. This cost is based on a physical ESB cost estimate and contingency,

recognising the uncertainty of this cost. It is uncertain who would be responsible for delivering and operating the ESB and whether there would be cost recovery arrangements for recover costs from ELNOs.

5.3 Capital costs of interoperability

	Present value	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
	$ million, pv	$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million
PEXA	14.2	15.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
Sympli	4.8	5.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
ESB	2.5	0.0	0.0	0.0	0.0	3.5	0.0	0.0	0.0	0.0	0.0
SRO	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Banks	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	**20.9**	**20.7**	**0.0**	**0.0**	**0.0**	**4.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Source: CIE

The break down for operating costs by stakeholder is shown in table 5.4.

Interoperability results in a cost saving for PEXA as the number of subscribers falls. This is offset by operating costs associated with interoperability and increased insurance costs.

We have not included additional operating costs for state registrars. The costs of regulating ELNOs will be incurred in the base case, so have not been included in the CBA. We have also not included additional legal costs relating to managing disputes and claims from state assurance funds related to fraud, as it is not clear whether interoperability would result in additional disputes or claims.

5.4 Operating costs of interoperability

	Present value	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
	$ million, pv	$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million	$ million
PEXA	-19.1	-2.4	-2.5	-2.6	-2.7	-2.8	-2.8	-2.9	-2.9	-2.9	-2.9
Sympli	21.6	2.8	2.9	3.0	3.1	3.2	3.2	3.2	3.2	3.2	3.3
ESB	0.8	0.0	0.0	0.0	0.0	0.2	0.2	0.2	0.2	0.2	0.2
SRO	7.1	0.9	0.9	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
LRS	4.1	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Banks	5.0	0.5	0.6	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Conveyancers	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lawyers	-0.6	1.2	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3
Total	**18.9**	**3.7**	**2.0**	**2.4**	**2.5**	**2.7**	**2.7**	**2.7**	**2.7**	**2.7**	**2.7**

Source: CIE.

6 Estimating the impacts of price regulation

In the event that there is no effective competition in the market for ELNs, enhanced price regulation is an alternative policy option to address the potential for the abuse of market power.

Note that some price regulation already applies to ELNOs in the MORs, however the current approach is very 'light touch': [67]

- the initial price structure, and price level is not regulated and is chosen by the ELNO. There is no oversight as to whether initial price levels are efficient.
- price changes have been regulated from version 5 of the operating requirements which came into force on 25 February 2019. Between 1 July 2019 to 30 June 2022, ELNOs are permitted to increase prices once a year on July 1, but the percentage price increase cannot exceed annual CPI growth for the previous March quarter. This restricts price changes, but does not consider whether those changes are economically efficient. Also, there is no mechanism to ensure that future productivity improvements or cost savings are passed onto consumers, as this decision is left to the ELNO.

An enhanced price regulation framework would seek to ensure that price levels and changes are economically efficient. This would generally involve a periodic price investigation/inquiry, involving public consultation and the opportunity for ELNOs and other stakeholders to provide written submissions.

The impact of enhanced price regulation relative to the central base case (which includes 'light touch' price regulation), could include the following.

- The benefit of a more rigorous approach to price regulation would presumably be lower prices for electronic lodgment services.
- The cost of price regulation (relative to the central base case) are the associated administrative costs. This includes:
  - the costs incurred by the regulator (such as the ACCC)
  - the costs incurred by the ELNO(s) associated with making submissions to the price regulator.

Estimating the benefits of price regulation

The analysis assumes that enhanced price regulation would result in the following benefit:

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67 ARNECC 2019, Model Operating Requirement Guidance Notes, p. 24.

- Reduced prices, however, we also recognise that price regulation is unlikely to deliver the same price outcomes as a competitive market.
  - to account for this we assume that price regulation realises 30 per cent of the price reduction from competition – if competition reduced PEXA prices by 7.5 per cent, we assume that price regulation reduced prices by 2.25 per cent

Note is outcome is not certain.

We have not included a benefit from improved product quality. This is based on the observation that price regulation does not help drive innovation and product improvements in the same way as completion. The ACCC has previously noted that a regulated monopoly ELNO would likely with forgone opportunities for innovation, lower costs and improved quality of service.68 For this benefit component, we assume that product innovation reduces transaction times for conveyancers and solicitors by 3 minutes due to competition (note we do not assume there is a time saving for end consumers).

Limitations of price regulation

The main limitation of price regulation is that it is not likely to deliver the same benefits as a competitive market (noted in the previous section). Barriers to effective price regulation include:

- **The availability of information** — regulators will generally have imperfect knowledge about the cost of providing these services. It is difficult to determine socially optimal prices without good information on demand and costs function. The regulator can set maximum prices based on its own estimates of the socially optimal prices, but these estimates will typically have some error. If the maximum prices are too high, prices in the market are likely to be too high.
- **Price regulation is costly** — this includes the cost of the price regulator itself (e.g. in the electricity sector the costs of the AER), the cost to firms of interacting with the price regulator (e.g. such as the costs of preparing regulatory submissions), and the cost to the regulator, firms and the court system if legal disputes arise. This may limit the extent to which prices may be examined by regulators.

In most cases, failures of price regulation may not be easily observable. Where regulators fail to set an efficient price, it is more likely that the price set by the regulator would be higher than the efficient level, rather than lower. The impacts of excessively high prices include the following.

- Prices higher than the efficient level mean that consumers pay too much for the service, which distorts their consumption decisions and reduces economic efficiency. However, as the efficient price is not observable, consumers would not necessarily be aware that they are paying too much for the regulated service.
- The excess revenue earned by the regulated businesses would be reflected in either excessive profits or possibly unnecessarily high costs (such as high wages or other costs).

68 ACCC 2019, ACCC report on E-conveyancing market reform, p. 1.

There are, however, several examples where price regulation has demonstrably delivered poor outcomes for consumers.

- **Taxi fare regulation** — the taxi industry has traditionally been highly regulated, including restrictions on market entry, fare regulation and prescriptive quality standards. Nevertheless, price regulation failed to protect consumers from high prices. In the Sydney taxi market for example, around 20 per cent of the regulated maximum fare reflected 'above-normal profits' received by licence owners (see chapter 10 for further details).
- **Electricity networks** — a key contributor to the rapid increase in retail electricity prices observed in the early part of the 21st century was the so-called 'gold plating' of network assets. This represents a failure of price regulation in protecting customers from high prices (see chapter 12 for further details). In particular, key factors contributed to rapidly increasing electricity prices, included:[69]
  - the regulated return, used to calculate the return on the regulatory asset base, was higher than the returns available on capital
  - network service providers had increased their regulatory asset base (i.e. the capital costs which can be recovered from customers) by investing in capital even if this was not justified. This resulted in excessive investment, with the regulatory asset base rising from around $40 billion to $90 billion from 2006 to 2017, which resulted in increased network tariffs.

Given these significant limitations of price regulation, the assumptions around the expected benefits of price regulation in protecting consumers from excessively high prices (relative to a competitive market) seem conservative.

Estimating the costs of price regulation

We have estimated the costs of regulation of enhanced price regulation as $1.3 million per regulatory period, which have assumed to be 4 years (i.e. prices would be reviewed once every 4 years). This consists of:

- $1 million costs for regulator
- $0.1 million costs for each of the two ELNOs
- $0.1 million costs for related parties

Other considerations in implementing price regulation

In this analysis we have focused on the potential price benefits and the cost of price regulation. In addition to this, the ACCC has previously indicated that a range of issues around competition would need to be resolved, which include:[70]

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69 Simshauser, P. 2019, Lessons from Australia's National Electricity Market 1998-2018: the strengths and weaknesses of the reform experience, Cambridge Working Papers in Economics: 1972.

70 ACCC 2019, ACCC report on E-conveyancing market reform, p. 8.

- development of robust compliance mechanisms, what mechanisms can be used to encourages efficiency and investment
- consideration of vertical integration concerns, which includes understanding whether a monopoly provider can operate in related markets.
- what is required to facilitate a structural separation between wholesale and retail services
- where is the value in the market and at what part of the market should separation be undertaken
- how will long term ring fencing from related markets be implemented and enforced
- how will prices be set and for what services
- what would dispute resolution arrangements for access seekers entail
- what type of compliance regime is necessary
- how can information asymmetry be addressed and mitigated
- what mechanisms for review are required, could this include consumer engagement panels
- what transparency measures and reporting obligations will be required

During consultations, some stakeholders have indicated that enhanced pricing regulation would also require more detailed MORs or other regulatory guidance for ELNOs to address the range of issues created by more involved regulation. For example, we understand that the NSW LRS concession agreement, which relates to the regulation of a regulated monopoly is over 800 pages long, compared to the ELNO model operating requirements which is less than 70 pages.

Further, price regulation is likely to be perceived as a much more significant regulatory intrusion than interoperability, given that the current framework already contemplates multiple ELNOs. This may create additional reputational risk for government.

These additional costs have not been included in modelling, but would likely increase the costs of enhanced price regulation.

7 Assessment of options

Summary

Interoperability is the preferred option for addressing market power in the market for electronic lodgment services for the following reasons.

- The CBA results suggest interoperability is likely to deliver the largest net benefits to the community. Although there is significant uncertainty around the estimates, sensitivity and scenario analysis suggests this finding is relatively robust.
- By facilitating competition, without embedding a monopoly in the structure, interoperability is also the only option that is consistent with the guiding principles set out in the Competition Principles Agreement.

Cost-benefit analysis results

Results from the CBA, compared to the central base case, are summarised in table 7.1. Both enhanced price regulation and interoperability are preferred to the base case as they generate benefits in excess of costs.

Of the two options, interoperability is preferred to enhanced price regulation as a competitive market is expected to deliver greater benefits to consumers from lower prices and product improvement than regulation. For interoperability this implies a benefit cost ratio of 3.0 – indicating that every dollar spent by stakeholders to achieve interoperability would deliver $3.00 of benefit for society.

Under the Competition Principles Agreement that underpins the RIS frameworks in all Australian jurisdictions, the guiding principle is that legislation (including Acts, enactments, Ordinances or regulations) should not restrict competition unless it can be demonstrated that:

- the benefits of the restriction to the community as a whole outweigh the costs; and
- the objectives of the legislation can only be achieved by restricting competition.

Both of these tests support the adoption of the interoperability option.

7.1 CBA results – incremental to central base case

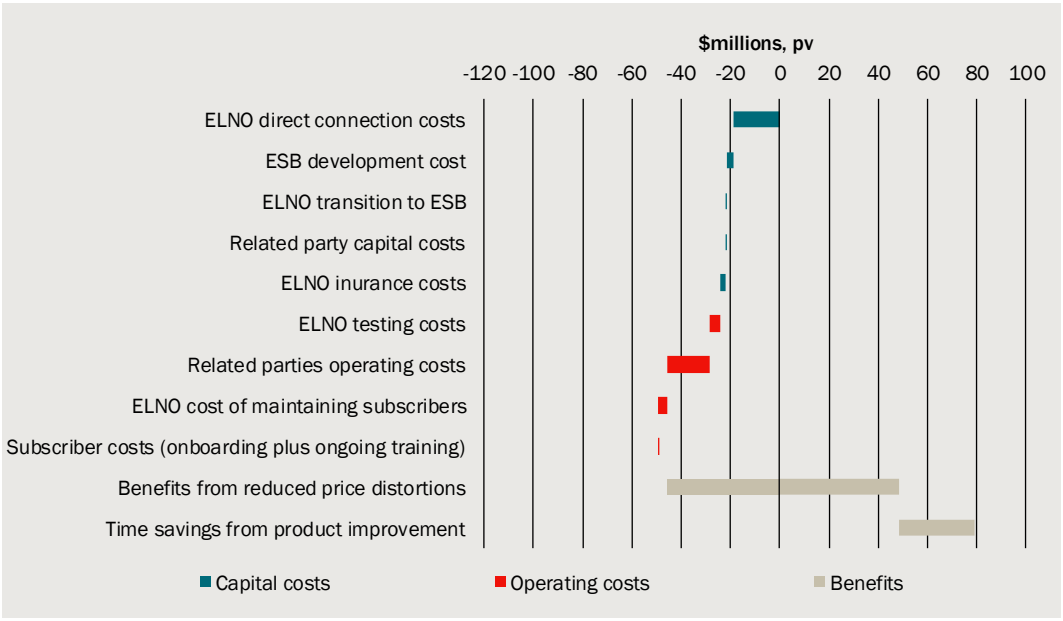
	Enhanced price regulation	Interoperability
	$million, pv	$million, pv
Capital costs		
ELNO direct connection costs	0.0	18.7
ESB development cost	0.0	2.5
ELNO transition to ESB	0.0	0.3
Related party capital costs	0.0	0.7
Total capital costs	**0.0**	**22.2**
Operating costs		
ELNO cost of maintaining subscribers	0.0	-3.9
ELNO testing costs	0.0	4.2
ELNO insurance cost	0.0	2.1
Related parties operating costs	0.0	17.0
Price regulation	2.8	0.0
Subscriber costs (onboarding plus ongoing training)	0.0	-0.6
Total operating costs	**2.8**	**18.9**
Total costs	**2.8**	**41.1**
Benefits		
Benefits from reduced price distortions	22.5	94.0
Time savings from product improvement	0.0	30.8
Total benefit	**22.5**	**124.7**
Net benefit	**19.7**	**83.6**

Source: CIE.

Costs and benefits of interoperability

Chart 7.2 shows the benefit of interoperability. The largest costs of interoperability are ELNO direct connection, which includes API development cost, costs followed by increased regression testing costs for related parties. The other costs are relatively small, with ELNO cost of maintaining subscribers results in a small cost saving, as multi-homing would be unnecessary under this option. The benefits are significantly higher than the costs associated with the option, indicating that interoperability would deliver large social welfare benefits.

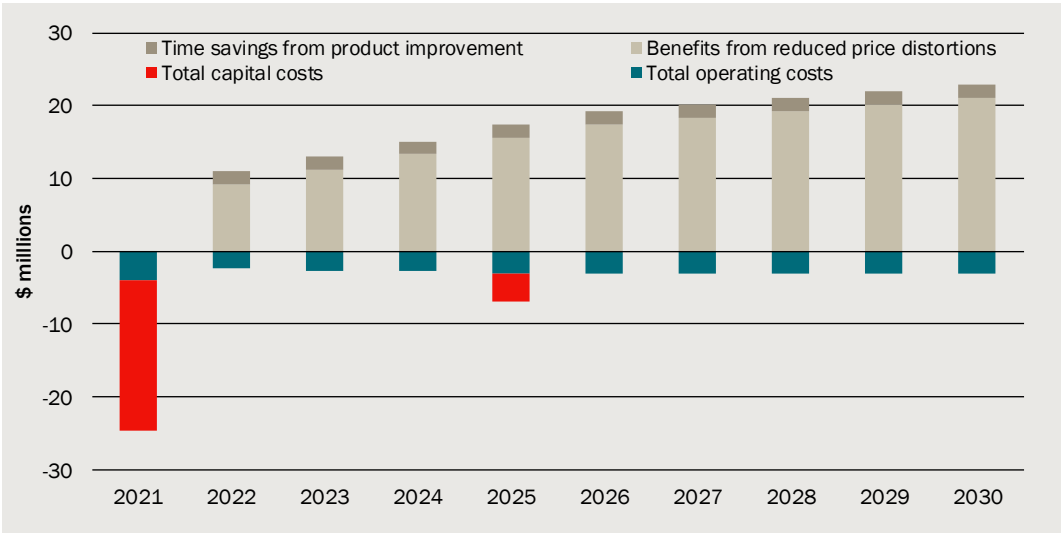
7.2 Interoperability compared to central base case



Data source: CIE.

The profile of undiscounted costs and benefits of interoperability are shown in chart 7.3.

7.3 Interoperability compared to central base case – net benefits over time



Data source: CIE.

Interoperability requires relatively modest upfront capital costs to enable direct connection interoperability between ELNOs. Almost all of this relates to the cost ELNOs incur in reconfiguring existing systems and developing the APIs to permit interoperability between one another via a direct connection. There is a wide range of cost estimates for this task, which a range of estimates previously published ranging from $1 million per ELNO to $30 million per ELNO (specifically for PEXA). The assumed costs have been refined based on consultations with stakeholders, and we have allowed $5 million capital costs for Sympli and $15 million for PEXA. Consultations indicated that the costs to PEXA of moving to interoperability are likely to be large given the nature of their

systems. These costs are assessed in sensitivity testing, but given the large net benefit, interoperability remains viable even if are at the upper bound estimate previously reported for PEXA.

Related parties are not expected to incur material capital costs. Under the phased ESB model, the cost of establishing direct connections is either sunk or is also included in the base case. Consultations have indicated that these connections are expected to be unaffected by direct connection.

In 2025 there is another small capital cost related to ELNOs transitioning to an ESB. This cost primarily relates to the development of the ESB, and transitioning to the ESB by ELNOs. The timing of the ESB capital costs was assumed for modelling purposes. Consultations with stakeholders indicated that the cost of transitioning to an ESB will be minor once a direct connection is in place.

Note, this does not include the costs of related parties transitioning to the ESB. Related parties connecting through the ESB is envisioned as a future opportunity to deliver additional benefits. Consultations have indicated that related parties connecting through the ESB could:

- deliver efficiencies for related parties by in building security aspects and replacing several direct connections with ELNOs with a single connection
- remove the need to negotiate direct connections between new ELNOs and related parties. With an ESB, we understand that the costs to related parties of accommodating a new entrant would not be material
- facilitate the entry of additional ELNOs, by significantly reducing the costs and complexity of a new entrant connecting to related parties. The entry of additional ELNOs could result in additional benefits from competition.

To date the work of the ITWG has focused on the first two stages of the phased ESB, which are 1) direct connection followed by 2) ESB connection between ELNOs. The third stage of establishing an ESB connection to related parties has been considered an aspirational outcome and is not included in the scope of the model of interoperability being developed. Because of this, and the uncertainty of stakeholders around the costs of moving to this model, we have not included it in our analysis it.

Overtime operating costs are relatively stable but are slightly higher in the first year of the evaluation period as conveyancers and solicitors onboard with Sympli and incur one off costs.

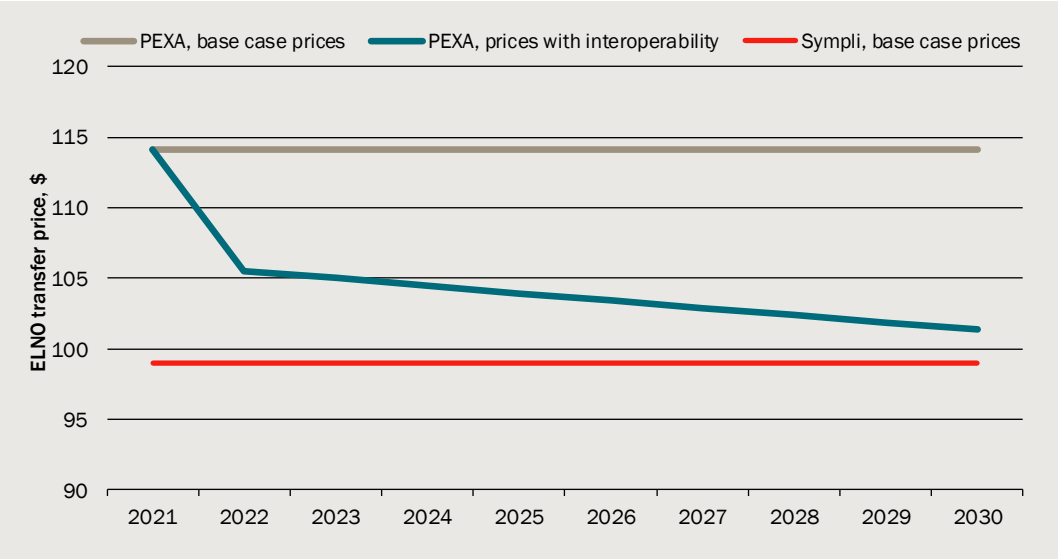
The benefits from reduced price distortions increases steadily overtime driven by:

- the assumed market share of Sympli – even under the interoperability and the assumed price reductions for PEXA, Sympli's prices are lower for most of the evaluation periods (see for example transfer prices in chart 7.4). For instance, for each additional transfer completed by Sympli, as opposed to PEXA in the base case, there

is a benefit of around $19 per transaction.[71] This accounts for around 50 per cent of this benefit

- the assumed reduction in PEXA's prices when interoperability is first introduced in 2022 (see for example transfer prices in chart 7.4). This accounts for around 39 per cent of this benefit
- the assumed ongoing reduction in prices due to competition – prices are assumed to fall by 0.5 per cent in real terms (with inflation of around 2.5 per cent this would imply nominal price growth of 2 per cent). This account for around 11 per cent of this benefit.

7.4 ELNO transfer price



Note: For a transfer the buyer and seller are charged the transfer fee by ELNOs – the revenue per transfer for an ELNO without interoperability will be double the stated price and does not include fees for associated transactions (e.g. mortgage or mortgage discharge).

Data source: PEXA, Sympli, CIE.

Benefits from product improvements are very modest overtime, and increase only very gradually overtime.

Costs and benefits of enhanced price regulation

The costs of enhanced price regulation are materially smaller than interoperability, as compared to the base case it does not result in additional capital or operating costs for related parties. Note, we expect that there may be other costs associated with regulating a monopoly or dominant ELNO, such as developing more robust compliance mechanisms and dealing with risks around vertical integration. The costs of this are not clear, but would reduce the benefits of enhanced price regulation.[72]

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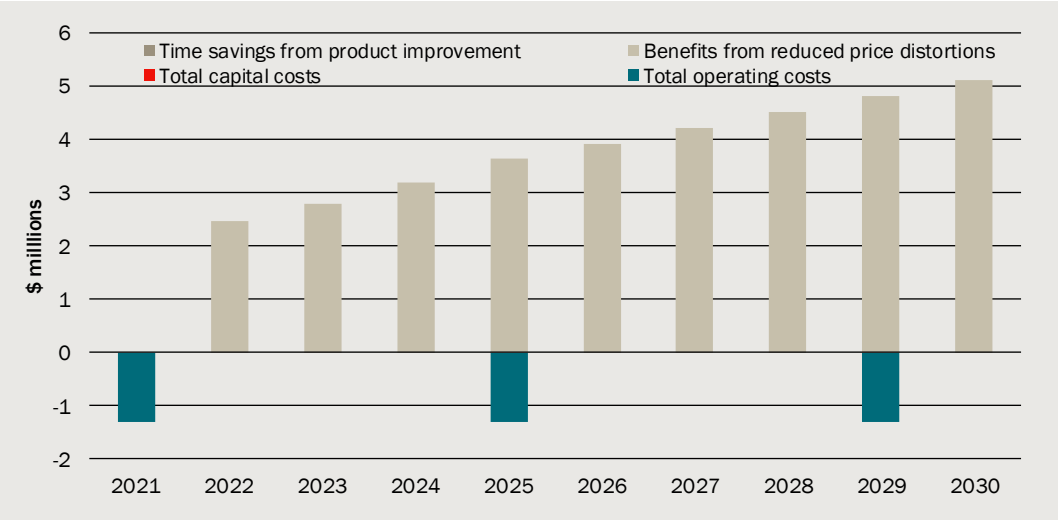
71 Calculated as follows $\left(\left(P_{PEXA} - P_{Sympli}\right) \times 2 \times MEBT\right)$. This reflects the pricing structure of Sympli and PEXA for transfers and uses a MEBT of 0.6564, as per the analysis.

72 It is also not clear whether this would be required in the base case. If additional regulation is also required in the base case it would not affect the results of this option.

Although having positive net benefits, this option has lower benefits than interoperability as regulation is unlikely to deliver the same benefits as competition. Further, examples from other industries where price regulation has not passed cost savings onto consumers, might indicate that our assumption that 30 per cent of the benefits of competition are realised by price regulation may be optimistic.

7.5 Enhanced price regulation– net benefits over time



Data source: CIE.

Cost and benefits of interoperability compared to multi-homing

We also present results comparing interoperability to an alternative base case of multi-homing becoming the norm (table 7.6).

Based on this analysis Interoperability is preferred to the alternative base case of multi-homing. This is because interoperability is expected to avoid the costs of multi-homing for ELNOs and for subscribers and users. This implies a benefit cost ratio of 2.8 – indicating that every dollar spent by stakeholders to achieve interoperability would deliver $2.80 of benefit for society.

7.6 Summary of CBA results – incremental to multi-homing base case

	Interoperability
	$million, pv
Capital costs	
ELNO direct connection costs	18.7
ESB development cost	2.5
ELNO transition to ESB	0.3
Related party capital costs	0.7
Total capital costs	**22.2**
Operating costs	

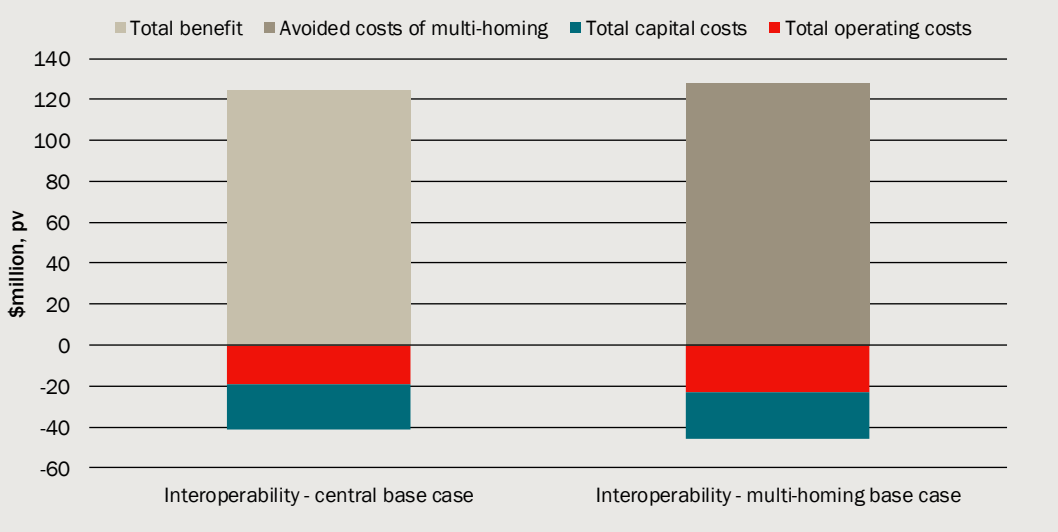
	Interoperability
	$million, pv
ELNO testing costs	4.2
ELNO insurance costs	2.1
Related parties operating costs	17.0
Price regulation	0.0
Total operating costs	**23.4**
Total costs	**45.5**
Benefits	
Avoided costs of ELNOs maintain subscribers	80.7
Avoided costs (onboarding plus ongoing training)	47.0
Benefits from reduced price distortions	0
Time savings from product improvement	0
Total benefit	**127.6**
Net benefit	**82.1**

Source: CIE.

There is a large net benefit, primarily driven by the large avoided cost to ELNOs and subscribers, from avoiding multi-homing. This results in a larger benefit for The NPV of interoperability, is similar against both of the base cases considered, with the price and innovation benefits compared to interoperability assessed against the central base case are similar to the avoided costs of multi-homing against the alternative base case (chart 7.7).

Note in this analysis we have assumed that multi-homing has the same benefits as interoperability. This was a simplifying assumption made for modelling purposes, due to uncertainty around how a multi-homed market would function and the extent of competition it would deliver. We see having the same level of competition as interoperability as a best-case scenario for multi-homing – if multi-homing does not deliver the same competition benefits as interoperability the benefits of interoperability would be larger.

7.7 Interoperability option – central compared to multi-homing base case



Data source: CIE.

This result is driven by the large annual cost of multi-homing. This cost is large as there as there are many potential ELNO subscribers and users and is stepped out in table 7.8:

- With *no* multi-homing, the total annual costs (assuming all potential subscribers and users are ELNO subscribers/users) is equal to $(A) \times (D) + (B) \times (C)$, as denoted in table 7.8 and shown in the last column
- With multi-homing these costs are doubled

These results are consistent with analysis by IPART that found:[73]

> any interoperability model is likely to be more cost efficient than multi-homing for ELNOs. This is because the costs of each subscriber having to use each ELNO in the market are high, relative to any interoperability option modelled.

7.8 Annual costs of multi-homing

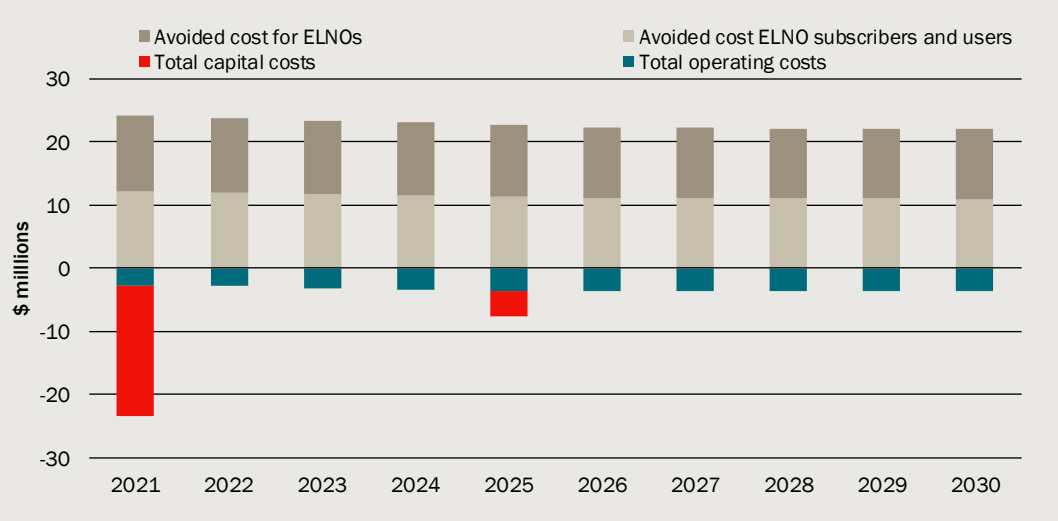
	Number of potential subscribers (A)	Number of potential users (B)	ELNO cost per subscriber (C)	User annual cost (D)	Total cost multi-homing	Total cost *no* multi-homing
	No.		$ per subscriber per year	$ per user per year	$ million per year	$ million per year
Conveyancer	1 335	3 260	1 100	177	4.1	2.0
Solicitor	8 665	21 158	1 100	262	30.2	15.1
Total	**10 000**	**24 418**			**34.3**	**17.1**

Source: CIE.

The annual costs and benefits of avoided multi-homing are shown in chart 7.9.

73 IPART 2019, Review of the Pricing Framework for Electronic Conveyancing Services in NSW, Final report, p. 26.

7.9 Interoperability compared to alternative base case– net benefits over time



Distributional impacts

In addition to the cost benefit analysis we have assessed the distributional impacts of the options, which:

- identifies costs and benefits captured by different stakeholders
- identifies transfers. In this case, we measure the full cost saving for consumers from lower ELNO prices as opposed to just the social welfare component.

Results are shown in table 7.10 and chart 7.11.

Consumers and Sympli are the main winners from interoperability; consumers enjoying lower prices, while Sympli increases revenue by due to the assumed increase in market share. This assumes that conveyancers and solicitors pass on ELNO costs to consumers as disbursements. If, however practitioners charge a fixed fee and absorb the cost of ELNO fees, practitioners would benefit from reduced cost and increased profit per transaction. Lawyers and conveyancers also benefit from interoperability, primarily from time savings which may be realised from competition.

PEXA is the main loser from interoperability, losing revenue as a result of Sympli capturing a larger market share and reducing prices to compete with Sympli in the market.

Related parties which connect to ELNOs are also likely to lose out as a result of interoperability, as this might increase the testing costs of new product releases. In this analysis we have not taken into account the possibility for these costs to be recovered from ELNOs in which case costs, or some of these costs, may be passed onto ELNOs.[74]

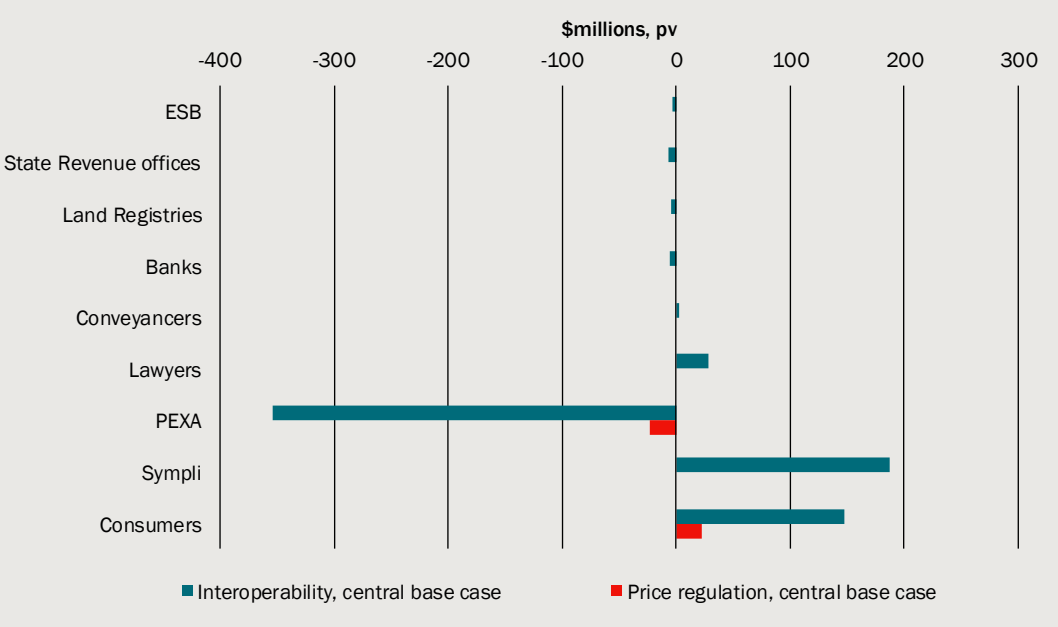
74 The IPART recommendation proposes to allow Revenue NSW to recoup costs for testing of releases in excess of baseline release frequency. The cost of interoperability for related parties could be funded using a similar cost recovery arrangement as that suggested by IPART.

7.10 Distributional impacts – incremental to central base case

Stakeholder	Price regulation	Interoperability
	$ million, pv	$ million, pv
ESB	0.0	-3.3
State Revenue offices	0.0	-7.6
Land Registries	0.0	-4.1
Banks	0.0	-5.2
Conveyancers	0.0	2.7
Lawyers	0.0	28.7
PEXA	-22.5	-353.2
Sympli	0.0	186.2
Consumers	22.5	147.6

Source: CIE.

7.11 Distributional impacts – incremental to central base case



Data source: CIE.

Distributional impacts of interoperability compared to alternative base case

The distributional impacts of interoperability compared to the alternate multi-homing base case is shown in table 7.12.

The distribution of benefits is considerably different under the alternative base case. ELNOs and legal practitioners are the main winners of interoperability due to the avoided costs of multi-homing. Benefits are particularly large for Sympli as we assume that they account for only 30 per cent of transactions, but service all potential subscribers in the market.

PEXA are winners under this base case, as they lose market share to Sympli in both the base and project case, but in the project case avoid some subscriber costs.

7.12 Distributional impacts – incremental to alternative base case

Stakeholder	Interoperability
	$ million, pv
ESB	-3.3
State Revenue offices	-7.6
Land Registries	-4.1
Banks	-5.2
Conveyancers	4.5
Lawyers	42.4
PEXA	9.4
Sympli	48.1
Consumers	0.0

Source: CIE.

Sensitivity and scenario analysis

Sensitivity analysis is a critical step in a CBA, which examines the sensitivity of results to key risks of changes in key assumptions or parameters. The purpose of this is to assess the robustness of the proposal to movements in variables which determine viability.

Guidelines recommend several standard sensitivity tests, such as different discount rates and higher/lower costs and benefits, but for this analysis we have also examined some of the key assumptions which drive results.

The results of the sensitivity analysis are shown in table 7.13. The main results for this analysis are:

- both options have positive net benefits across the sensitivities assessed and
- interoperability is the preferred option across scenarios.

7.13 Sensitivity analysis

	Price regulation Central base case	Interoperability Central base case	Interoperability Alternative base case (multi-homing)
	$ million, pv	$ million, pv	$ million, pv
Base line result	**19.7**	**83.6**	**82.1**
Discount rates			
3% discount rate	25.2	113.1	101.8
10% discount rate	16.5	67.1	70.7
Evaluation period			

	Price regulation Central base case	Interoperability Central base case	Interoperability Alternative base case (multi-homing)
	$ million, pv	$ million, pv	$ million, pv
5-year evaluation period	7.3	14.8	42.2
15-year evaluation period	31.5	152.1	110.4
Costs estimates			
Upper bound of estimate to accommodate interoperability ($30 million for PEXA and $10 million for Sympli)	19.7	69.6	68.1
Double capital costs	19.7	61.5	37.8
Using the cost of constructing an ELNO estimated by AECOM, as the cost for PEXA to enable interoperability ($5.55 million)	19.7	92.5	90.9
PEXA price change due to competition			
Prices fall to Sympli's under competition	52.0	171.0	82.1
Prices fall by 2.5 per cent under competition	7.7	52.1	82.1
No ongoing price decreases	15.4	73.0	82.1
Ongoing price decrease of 1 per cent	23.3	90.6	82.1
Economic distortion of higher conveyancing prices			
Low MEB stamp duty – economic benefit of $0.34 per $1 lower prices	9.2	39.8	82.1
High MEB stamp duty – economic benefit of $0.85 per $1 lower prices	27.2	115.1	82.1
Only measuring reduced economic distortions for price decreases for fees paid by property purchasers	8.4	38.9	82.1
Time saving benefit from improved product design:			
No time saving for conveyancers and solicitors from competition	19.7	52.9	82.1
5 minute time saving conveyancers and solicitors from competition	19.7	92.7	82.1
Sympli market share assumptions			
High estimate – 50 per cent market share with interoperability	19.7	92.8	82.1
Low estimate – 10 per cent market share with interoperability	19.7	74.5	82.1
General tests			
All costs 30 per cent higher	18.8	42.5	68.4
All costs 30 per cent lower	20.5	80.5	95.7
All benefits 30 per cent higher	26.4	98.9	120.4

	Price regulation Central base case	Interoperability Central base case	Interoperability Alternative base case (multi-homing)
	$ million, pv	$ million, pv	$ million, pv
All benefits 30 per cent lower	12.9	24.0	43.8
Benefits 30 per cent ***higher*** and costs 30 per cent ***lower***	27.3	117.9	134.0
Benefits 30 per cent ***lower*** and costs 30 per cent ***higher***	12.1	5.1	30.1

Source: CIE.

Other observations from the analysis are:

- The evaluation period length has a large impact on the size of net benefits, as a shorter evaluation period implies benefits are realised over a short period of time. We believe the 10-year evaluation period is appropriate for the base line results, given the expected life of the technological solutions.
- Costs have a minor impact on viability, as benefits are significantly higher than costs in the base line results. Competition from interoperability is expected to pay off even if costs are considerably higher.
- Net benefits are sensitive to assumptions around price changes and time savings for conveyancers and solicitors. Even using very conservative estimates net benefits remain above $40 million in present value terms.
- The MEB of taxation has a large impact on the size of benefits, however, net benefits are comfortably above one even with the lowest estimate.
- Interoperability still has positive net benefits when benefits are 30 per cent lower and costs are 30 per cent higher.

Assessment against best practice principles

Interoperability is also the option most consistent with the guiding principle set out in the Competition Principles Agreement. In particular:

- the benefits of mandating interoperability are estimated to outweigh the costs.
- mandating interoperability would promote competition, rather than restrict it

It is less clear that the other options considered are consistent with the guiding principles.

- The base case option does not involve imposing additional restrictions on competition. However, choosing an option that fails to promote competition does not appear to be consistent with the spirit of the agreement.
- Regulating prices could be interpreted as a restriction on competition. It is therefore not clear that price regulation complies with the second part of the 'competition test'. In particular, restricting competition through price regulation is not the only way that the objective of the regulation (i.e. to address PEXA's market power) can be achieved.

PART II

Case studies

8 The taxi industry

- **Although the characteristics of the taxi market are substantially different to the market for electronic lodgment services, recent experiences in the taxi industry provide evidence of the failures of restrictive regulation and the benefits of competition.**
- **The taxi industry has traditionally been highly regulated (including restrictions on market entry, price regulation and prescriptive quality standards). However, this delivered poor outcomes for consumers.**
  - **Price regulation failed to protect consumers from excessively high fares**
  - **Service quality was low.**
- **The introduction of competition in the market for booked services delivered significant benefits to consumers, including:**
  - **lower fares**
  - **improved service quality.**

Overview of taxi industry regulation

Historically, the taxi industry has been a highly regulated sector of the economy. Although the specific regulatory requirements have varied to some extent across states, key common elements of the regulatory framework have typically included the following.

- Restrictions on market entry through:
  - quantitative restrictions on the number of vehicles able to provide services in particular areas (implemented through licences); or
  - excessively high licence fees (i.e. fees well above the cost of administering the licensing system) for providing services.
- Regulated fares — fare regulations have been applied through either:
  - prescriptive specification of the level of each fare component; or
  - specifying maximum fare (although this notionally gives industry participants the flexibility to offer lower fares, in practice industry participants rarely, if ever, exercise this option).
- A range of service quality regulations, including:
  - prescriptive requirements on the characteristics of the vehicle used to provide on-demand transport services, as well as equipment and signage requirements
  - restrictions on who can participate in the industry, including licensing of drivers and operators
  - network-related restrictions.

Approach to fare regulation

Taxi fares have traditionally been regulated for several reasons.

- There are some characteristics of the taxi industry that limit the effectiveness of competition. In particular, in the 'rank and hail' market (as distinct from the market for booked services), the opportunity for passengers to choose the service provider is limited. Customer choice is a key element of effective competition.
- In a market with restricted entry, fares are regulated to protect passengers from the potential abuse of market power, through excessive fares.

Price regulators have typically set fares using estimated changes in costs, such as taxi cost indexes.

Outcomes from historical approach to regulation

There is evidence from several jurisdictions that the regulatory arrangements set out above typically delivered poor outcomes for the community.

Price regulators typically set taxi fares at a level that built in above normal profits, referred to as 'economic rent'. In most taxi markets, taxi licences had a significant value — often in the hundreds of thousands of dollars (see box 8.1). Although reflecting 'economic rent' rather than a resource cost, licence-related payments were treated as a cost to the operator and therefore embedded in fares. In the Sydney taxi market, for example, licence-related payments was previously estimated to make up almost 20 per cent of the cost of operating a taxi,[75] indicating that fares were significantly higher than the efficient level.

8.1 The value of taxi licences

In a market with no barriers to entry, competition would normally prevent firms from earning 'above-normal' profits (referred to as 'economic rent') in the long run. If incumbent firms consistently earn an above-normal profit, new firms enter the market and compete away this rent.

Entry into the taxi industry has typically been restricted by the number of licences on issue or high fees on the issue of new licences. The value of the licence is therefore derived from its scarcity. If there were no restrictions on entry, licences would have no value. The value of the licence therefore reflects the future rents earned by the licence owners.

Furthermore, the cost-based approach to fare regulation typically delivered fare increases that exceeded general consumer price inflation (i.e. real fare increases). The dynamics of

75 IPART website, https://www.ipart.nsw.gov.au/files/sharedassets/website/trimholdingbay/cie_consultant_report_-_reweighting_the_taxi_cost_index_-_final_report_-_april_2012.pdf, accessed 4 August 2020.

the taxi industry generally meant that the benefits from real fare increases flow through to higher licence values. For example, the value of a Sydney taxi licence increased at an annual rate of around 2.5 per cent over the period from January 2008 to October 2012. In some states, rising licence values fed back through into the taxi cost index and onto even higher fares. Real fare increases and escalating licence values indicate that fares were moving further away from an efficient level.

In addition to these price impacts, previous regulatory arrangements delivered the following

- Poor quality service[76] — limited competition in the industry and the fact that the quality of service provided by drivers has little influence on earnings, has meant there has been little incentive for industry participants to provide a high quality of service. Restrictions on market entry can also lead to long waiting times for passengers, particularly in peak periods.
- Low returns for drivers and operators — evidence from several states has shown that drivers typically earn well below the minimum wage during most shift periods.

Low returns for operators and particularly drivers have led to concerns about industry viability and created demand for even higher fare increases, which does nothing to address the issue.

The impact of competition from ridesharing

A key recent development in the taxi markets across the country has been an increase in competition provided by ride-sharing services.

The entry of ridesharing

Uber was launched in Australia in October 2012,[77] first in Sydney and subsequently expanding to other major cities and towns. Regulatory frameworks across all Australian jurisdictions have subsequently been revised to allow ridesharing services to compete in the market for booked 'point to point' transport services (but not the 'rank and hail' market). Other ridesharing apps have also entered the market.

The impacts of greater competition

Competition from ridesharing services has delivered significant benefits to passengers, including:

- Lower fares — although fare comparisons between taxis and ridesharing services depend on the characteristics of the trip and time of day (including whether 'surge

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[76] See for example: Victorian Taxi Industry Inquiry, *Customers First: Service, Safety, Choice*, Final Report, September 2012, p. 9.

[77] Department of Industry website, https://www.industry.gov.au/data-and-publications/uber-in-australia#:~:text=Uber's%20launch%20in%20Australia%20in,resistance%20from%20the%20taxi%20industry., accessed 4 August 2020.

prices' apply), the evidence suggests that in most circumstances, ridesharing fares are significantly lower than taxi fares. For example, Choice compared UberX with taxis for a sample of 28 trips in inner Sydney, finding that:[78]

  - UberX was cheaper than taxis on around 90 per cent of trips
  - On average, taxis were around 40 per cent more expensive than UberX.
- Quality improvements — the overall experience of each trip was rated. Taxis scored an average of 6.7, while Uber scored an average of 8.3.

The impact of competition from ridesharing on the market power of taxis has also been reflected in the value of licences (chart 8.2). As noted above, the value of a taxi licence reflects economic rent derived from scarcity and is therefore an indicator of the market power held by licence owners.

- Prior to Uber entering the market, the value of taxi licences in Sydney had been steadily increasing by around 2.5 per cent per year and were trading at around $430 000 in September 2012.
- After Uber entered the market, providing competition in the market for booked services, licence values declined to around $350 000 by mid-2015.
- The NSW Government announced a 'Point-to-Point Transport Taskforce' in July 2015. Licence values declined sharply in the subsequent months in anticipation of changes to the regulatory framework to accommodate ridesharing.
- The initial changes to the regulatory framework commenced in December 2015, with full implementation of new regulatory framework rolled out over subsequent years. Licence values have declined further since the reforms were implemented. Sydney taxi licences are now trading at around $100 000.

8.2 Taxi licence value — Sydney

Data source: CIE.

78 Choice website, https://www.choice.com.au/transport/cars/general/articles/uberx-vs-taxi-which-one-is-best, accessed 5 August 2020.

9 Retail trade

- **Although there have not been any specific reforms to encourage competition in the Australian retail sector, recent developments in the market demonstrate that a more competitive environment can deliver lower prices for consumers and encourage productivity improvements over time.**
- **Evidence suggests that increased competition provided by new market entrants has:**
  - **reduced the mark-ups that retailers charge above marginal costs, leading to lower prices for consumers**
  - **contributed to relatively high productivity growth in the retail sector, relative to the broader economy.**

The impacts of increased competition

Over the past decade, traditional retailers in Australia have faced increased competition. The increase in competition has come from several sources, including:

- new international entrants (such as ALDI and H&M) and
- online shopping.

The evidence suggests that the increase in competition in the retail industry has:

- reduce prices for consumers (through lower retail margins)
- contributed to stronger productivity growth in the retail sector, relative to the broader economy.

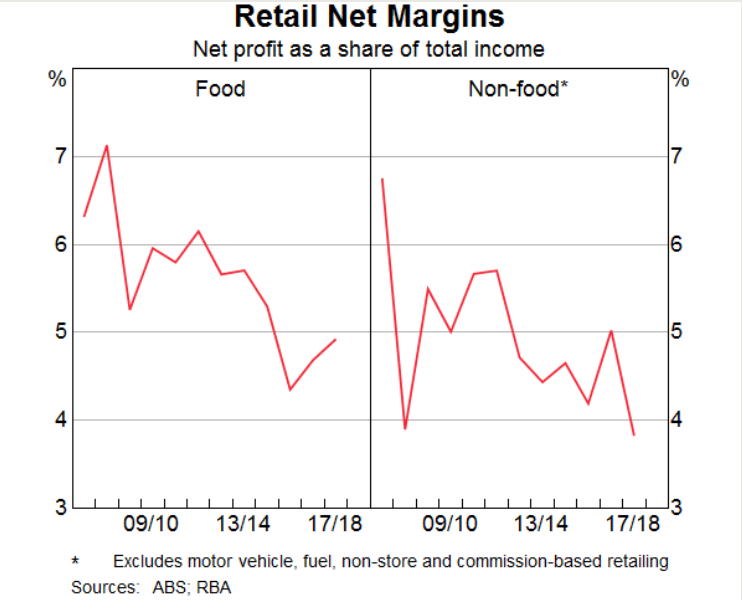
Reduced prices for consumers

Australia's retail trade industry shows that competition can reduce the prices paid by consumers through reducing mark-ups that retailers charge above marginal costs, and can improve the quality of the retailers' services.

Industry stakeholders have reported that greater competition has prompted them to adjust their pricing behaviour, often by increasing the size and frequency of discounts.[79] This is consistent with data showing that retailer's net margins have fallen by around 1.75 per cent since 2011/12 (chart 9.1).

79 Carter M 2019, 'Competition and Profit Margins in the Retail Trade Sector', *RBA Bulletin*

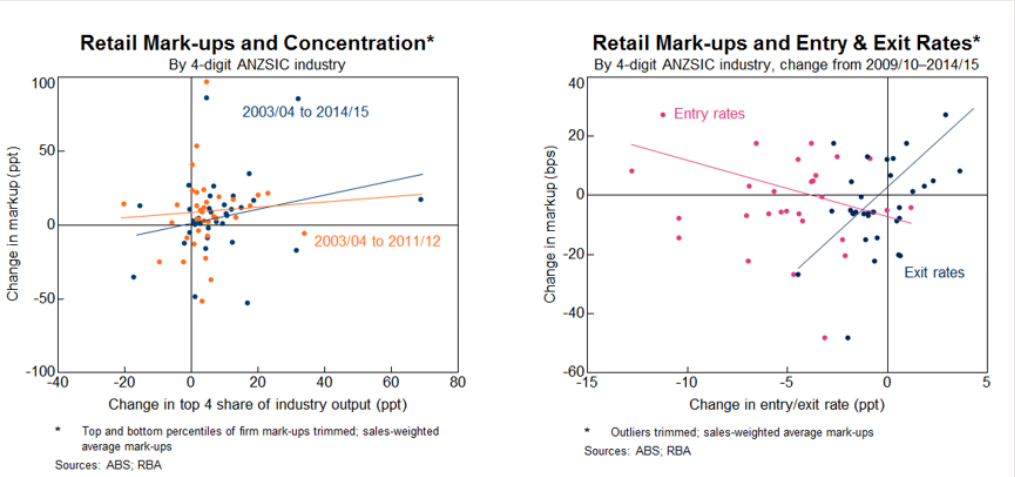
9.1 Retail net margins



Data source: Carter M 2019, 'Competition and Profit Margins in the Retail Trade Sector', *RBA Bulletin.*

Evidence on the retail trade sector in aggregate is complemented by comparing the experiences of different 'sub-industries' of retail trade, such as supermarkets, clothing retailing and furniture retailing. Sub-industries where concentration decreased from 2003/04 to 2014/15 (implying more competition) typically reduced their mark-ups, and vice-versa (chart 9.2).[80] Similarly, sub-industries where barriers to entry rose over recent years (as proxied by entry rates), tended to experience an increase in mark-ups.

9.2 Retail Mark-ups and concentration



Note: By 4-digit ANZSIC industry.

Data source: Hambur J & La Cava G 2018, Business Concentration and Mark-ups in the Retail Trade Sector, RBA Bulletin.

80 Hambur J & La Cava G 2018, 'Business Concentration and Mark-ups in the Retail Trade Sector', *RBA Bulletin*

Faster productivity growth

Heightened competition in the retail trade industry increases the pressure on retailers to cut their costs. Since 2011/12, multifactor productivity in the retail trade industry has increased at an average annual rate of 1.1 per cent, compared to 0.5 per cent in the market sector as a whole (chart 9.3). That said, it is likely that competition from new entrants only partly explains the relatively rapid productivity growth in the retail industry observed over this period, as the divergence in productivity growth from the broader economy began several years earlier.

9.3 Multifactor productivity

Note: Multifactor productivity is the ratio of a measure of output (Gross Value Added) and a measure of inputs (quality-adjusted hours worked and capital services). Index = 100 in 1994/95.

Data source: ABS 2019, 5260.0.55.002 - Estimates of Industry Multifactor Productivity, 2018-19.

10 Equities trading services

- **Competition was introduced to the market for equities trading services in 2011.**
  - **There has been a single new entrant (i.e. the market is a duopoly).**
  - **The new entrant has achieved a market share of around 15 per cent, despite no interoperability.**
- **The introduction of competition has delivered significant benefits to consumers, including:**
  - **significantly lower prices – consumers benefited from lower prices offered by the new entrant, as well as a significant reduction in the prices charged by the incumbent provider in response to the competition provided by the new entrant.**
  - **improved product quality.**
- **On the other hand, the introduction of competition increased the costs incurred by the regulator.**
- **As a service that facilitates trading of assets, this market has many parallels to the market for electronic lodgment services.**

The structure of the market

Trading in shares involves three key steps.

- **Trading** — buyers and sellers of the share agree on a trade, which specifies the price and quantity of shares to be transferred.
- **Clearing** — a central counterparty manages the risk that the buyer or seller will default on the obligations they have just made. Specifically, the central counterparty commits to transfer the money if the buyer fails to do so, and commits to transfer the shares if the seller fails to do so.
- **Settlement** — two days later, the buyer transfers the money and the seller transfers the shares. This occurs simultaneously, so that one transfer cannot occur without the other.

ASX Limited previously had a monopoly on providing the infrastructure needed for the trading, clearing and settlement of ASX-listed shares until 2011. The Australian government undertook reforms to enable competition in the provision of trading infrastructure, though not to enable competition in clearing and settlement infrastructure. The first and only competing trading venue, Chi-X, entered the market in 2011.

Equities trading venues has some parallels to the ELNO market:

- ASX and Chi-X are able to compete in the provision of trading infrastructure because, when a trade occurs on either market, it is handled by ASX's clearing and settlement infrastructure in the same way. This is analogous to proposals to allow any new ELNOs that arise in the future to obtain access to PEXA or Sympli's infrastructure.
- ASX and Chi-X are not interoperable, in the sense that a buyer and seller must be a participant of the same venue in order to trade with each other. Participants tend to have connections to both venues unless they are small.[81] This suggests that the costs of multi-homing are fairly low in the trading venues context, which may explain why robust competition arose in the absence of interoperability. In the ELNO market, where the costs of multi-homing are thought to be higher, competition may not arise without interoperability.

The impact of competition

Competition has delivered significant benefits to consumers.

Competition reduced mark-ups

Chi-X held a 'soft launch', and initially had a negligible market share initially. However, its market share increased to 11.1 per cent by March 2013, and 14.5 per cent by June 2020.[82] Although Chi-X's market share was modest, and there were no other competitors, competition caused large immediate reductions in fees.[83]

- **ASX fee cuts** — once Chi-X had announced it intended to enter the market, ASX significantly cut its trade execution fee by 46 per cent, and its fee for on-market crossing and off-market crossings by 33 per cent. It did not reduce fees for auctions, for which it would not face competition.
- **Chi-X undercutting** — When Chi-X entered, it undercut ASX's now reduced fees. For example, its trade execution fee was either 20 per cent or 60 per cent lower than ASX's fee, depending on the type of trade.

The explicit fees charged by trading venues are a source of friction in equities markets. A cut in these fees improved the functioning of the market by, among other things, making the spread between bid and ask prices much narrower. Similarly, a reduction in the fees charged by ELNOs would be expected to improve the functioning of the housing market.

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81 Aitken, M, Chen & Foley S 2017, 'The impact of fragmentation, exchange fees and liquidity provision on market quality', page 141

82 Market share has been measured as the share of the value of trading in ASX-listed securities that occurs via one of Chi-X's services. This includes both on order book trades and off-market trade reporting. The equity market data is available from ASIC: https://asic.gov.au/regulatory-resources/markets/market-structure/equity-market-data

83 Aitken, Chen & Foley 2017, 'The impact of fragmentation, exchange fees and liquidity provision on market quality'

Competition improved product quality

Competition placed pressure on trading venues to improve the quality of their services through innovation. ASIC reports that competition "was accompanied by the introduction of a range of new trading platforms, products and order types on both the ASX and Chi-X markets".[84] For example, although Chi-X focusses on facilitating trading ASX-listed shares, it now lists a variety of its own products not available on the ASX. These include Transferable Custody Receipts, which allow Australian investors to gain exposure to individual US shares.[85]

Competition increased regulatory costs

ASIC incurred costs to implement the new policy of competition, such as developing the new regulatory framework. These costs were around $7.6m in total. ASIC also has higher ongoing costs each year due to, for example, the costs of supervising multiple markets. These costs are roughly $3.2m per annum. [86] However, these costs are small in the context of the benefit of improved functioning of Australia's equity markets.

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84 ASIC 2015, '15-205MR ASIC marks five years of listed market supervision'

85 Chi-X 2020, 'About Chi-X', accessed 12 August 2020, https://www.chi-x.com.au/about-chi-x

86 ASIC, 'Market Supervision Cost Recovery Impact Statement – 1 July 2013 to 30 June 2015'. Footnote 14 states that implementation costs were around $7.6m, and that these costs would be fully recovered by the end of 2014/15. ASIC estimates that around $3.2m would need to be recovered due to market competition in 2015/16. Since it would have fully recovered its implementation costs by that time, this must entirely reflect higher ongoing costs.

11 Electricity markets

- **Since the early 1990s, there have been significant reforms to electricity markets across Australia, including encouraging competition in those parts of the market where competition is feasible. The outcomes of these reforms have been mixed.**
- **The reforms initially put downward pressure on prices. The Productivity Commission reported that on average, prices decreased by around 19 per cent in real terms between 1990-91 and 2003-04 (although these benefits mostly went to business customers, rather than residential customers).**
- **However, in more recent years, electricity prices have increased significantly. Factors that have contributed to rising retail electricity prices include:**
  - **a failure of price regulation to protect consumers from network 'gold-plating'**
  - **a failure of retail competition to put downward pressure on retail margins.**

Electricity market reform in Australia

Across Australia, electricity was traditionally provided by vertically integrated state government-owned providers operating in separate state markets. Since the early 1990s, there have been significant reforms to electricity markets in Australia. Although implemented in different jurisdictions at different times, key elements of this reform agenda included the following.

- Commercialisation and in some (but not all) bases privatisation of electricity assets.
- Structural separation of utilities — vertically integrated providers were separated into:
  - Generators, who generate electricity and sell it on the wholesale market
  - Network operators, who operate the networks that carry electricity from generators to consumers
  - Retailers, who purchase electricity on the wholesale market and sell it to consumers
- The establishment of the national electricity market (NEM) and the associated governance arrangements — the NEM is a wholesale market that operates across all states and territories except Western Australia and the Northern Territory.
- The introduction of retail competition.

The outcomes for consumers as a result of these reforms have been mixed.

- A Productivity Commission review of National Competition Policy reforms (most of the electricity market reforms were implemented under National Competition Policy)

found that on average, electricity prices declined by 19 per cent in real terms between 1990-91 and 2003-04.[87]

  - While the Productivity Commission noted that the impact of these reforms (relative to other factors) is difficult to quantify, it was broadly accepted that the impacts of the reforms had been significant.
  - Furthermore, the outcomes were uneven across different sectors and locations. In particular:
    - prices for households increased by 4 per cent in real terms over the period
    - prices paid by businesses decreased by 27 per cent in real terms over the period.

- However, over more recent years, there has been a significant increase in retail electricity prices. The ACCC found that residential customers have experienced approximately a 45 per cent real increase in the average effective price over the period from 2007-08 to 2018-19.[88] These price increases can partly be attributed to the following factors.
  - A failure of the price regulation to protect consumers from the impacts of 'gold-plating' of the electricity network.
  - A failure of retail competition to put downward pressure on prices.

Regulation of electricity networks

Electricity networks are a 'natural monopoly'; the significant capital costs associated with providing the electricity poles and wires means that these services in a particular region are most efficiently provided by a monopoly provider.[89] Natural monopolies are generally subject to price regulation to prevent the abuse of market power through overcharging.[90] The Australian Energy Regulator (AER) imposes revenue caps on network operators, which indirectly places a cap on their prices.

However, the approach to price regulation has failed to protect consumers from excessively high prices due to 'gold-plating' of network assets.

Under the approach to price regulation, the AER was required to make key choices in a formulaic manner:[91]

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87 Productivity Commission, Review of National Competition Policy Reforms, Productivity Commission Inquiry Report No. 33, February 2005, pp. 56-61.

88 ACCC, Inquiry into the National Electricity Market, November 2019 Report, 29 November 2019, p. 5.

89 Australian Energy Markets Commission website, https://www.aemc.gov.au/energy-system/electricity/network-regulation, accessed 14 August 2020.

90 Australian Energy Markets Commission website, https://www.aemc.gov.au/energy-system/electricity/network-regulation, accessed 14 August 2020.

91 Simshauser 2019, 'Lessons from Australia's National Electricity Market 1998-2018: the strengths and weaknesses of the reform experience', *Cambridge Working Paper in Economics*

- The AER had to determine the regulatory return by estimating the weighted average cost of capital of equity returns and debt returns, and had to estimate debt returns based on BBB-rated 10 year corporate bonds.
- When the AER calculated the regulatory asset base of a network operator, it had to include any capital invested during the previous review period.

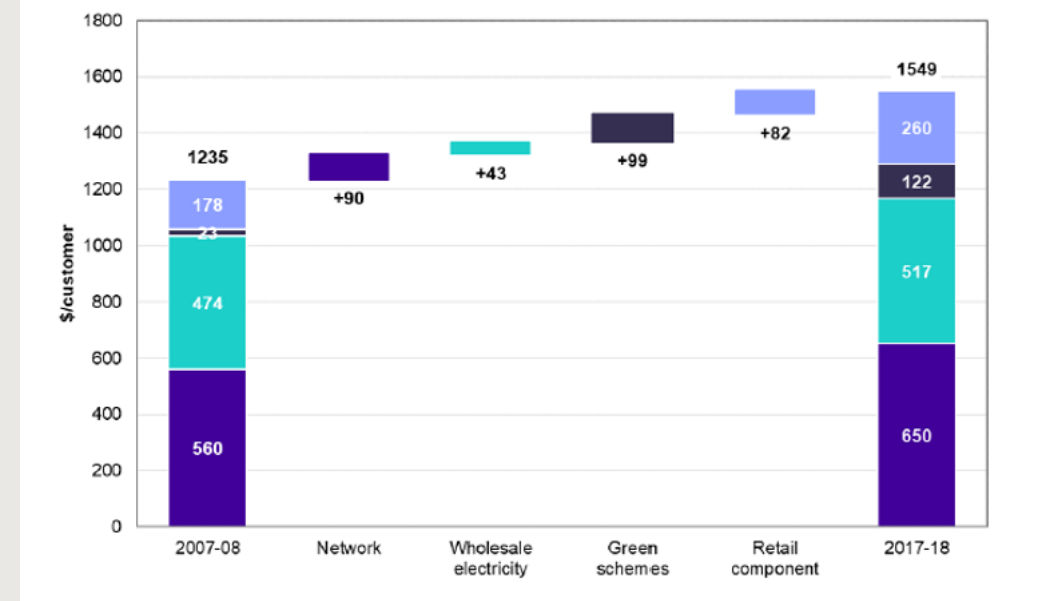
Under these arrangements:

- the regulated return became higher than the returns available on capital elsewhere; and
- network service providers were able increase their regulatory asset base by investing in additional infrastructure, even if the investment itself was not justified.

These incentives resulted in investment that significantly exceeded the increase in demand on the networks. Over this period, the regulatory asset base rose from $40b to $90b. This largely unnecessary increase in inputs did little to increase outputs, and therefore reduced productivity.

The large increase in regulatory asset base resulted in very high revenue caps, which in turn allowed network operators to charge high prices without breaching their caps. Network charges rose much faster than inflation. From 2007-08 to 2017-18, network charges rose by $90 per residential customer in real terms (Graph 11.1).

11.1 Change in average bill for a residential customer in the NEM — 2007/08 to 2017/18



Note: Expressed in real 2017-18 dollars, excluding GST.

Data source: ACCC 2019, Inquiry into the National Electricity Market – August 2019 Report.

Recent reforms have provided the AER with more discretion regarding the way it sets regulatory caps. This discretion is useful in reducing the extent to which firms are able to exploit the system. Nevertheless, price regulation may result in poor outcomes even if the regulator has substantial discretion. In the electricity network context, network operators

will have an incentive to argue that they should engage in a large amount of investment, and that this investment should be reflected in their regulatory asset base. The AER will find it hard to judge how much investment is actually appropriate, as it is not as informed about networks as the network operators themselves.

Retail competition

The introduction of retail competition does not appear to have delivered improved outcomes for consumers. In fact, ACCC analysis suggests that retail margins actually increased in real terms over the period from 2007-08 to 2017-18.[92] Retail margins that exceed an efficient level result in consumers paying unnecessarily high prices, which distort to households' electricity usage decisions. They also disproportionately harm lower income consumers, for whom electricity is a larger share of their expenditure.

Factors that have contributed to increasing retail margins include:

- the complexity of retail pricing makes it difficult for consumers to understand which offer will reduce their electricity bills (as well as household inertia)
- competition has increased costs.

Prices are hard to understand

Households often pay substantially more for electricity than the cheapest offer available. In Victoria, for instance, households paid an average of 21 per cent more than the cheapest offer.[93] Often, households do not even choose the cheapest plan from their current retailer. Since electricity from one plan is identical to electricity from another plan, it is surprising customers pay so much more than the cheapest offer.

A major reason that households had difficulty choosing the cheapest offer is that retailers have described their plans in terms of the size of 'discounts'. However:

- Retailers differ on whether the discounts are applied to the total charge, or just the variable charge, making comparisons difficult.
- Retailers' calculate the size of the discount based on the price reduction relative to their standing offer. Many retailers would set the standing offer at high levels to make the discounts appear large.
- Discounts were often subject to conditions or time limits that customers were unaware of.

Due to these issues, advertised discounts contained little information about actual prices, even though many customers focussed on discounts when choosing their plan (chart 11.2).[94]

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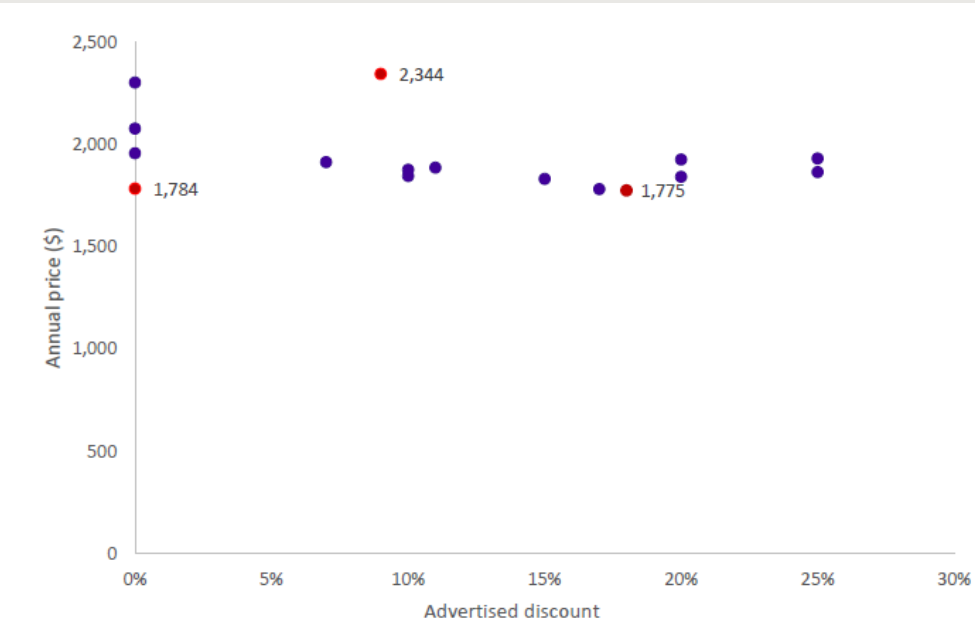
92 ACCC 2019, 'Inquiry into the National Electricity Market – August 2019 Report'

93 Independent Review Panel 2014, 'Electricity & Gas Retail Markets in Victoria'

94 ACCC 2019, 'Inquiry into the National Electricity Market – August 2019 Report'

11.2 Annual price for an offer with a given advertised discount in SA Power Networks distribution zone, July 2018



Source: ACCC analysis based on St Vincent de Paul Society Electricity Market offer data, July 2018. Note that annual price amount is calculated using the AER model usage determination of 4000 kWh p.a.

Data source: ACCC 2019, Inquiry into the National Electricity Market – August 2019 Report, p. 41.

If customers usually chose the cheapest offer, then competitive pressure would be expected to drive down all prices to the cheapest offer. However, due to the difficulty customers had in choosing the best offer, competition did not succeed in pushing down prices.

The complex pricing structures of retailers also create deadweight loss by causing many households to expend time and effort to compare deals. Comparison websites aim to overcome these issues, but to the extent these websites are used to overcome the artificial complexity of retailers' pricing structures, the resources used to produce these websites are themselves a source of deadweight loss. Moreover, even these comparison websites do not identify the best offer in all cases.[95]

Competition has increased costs

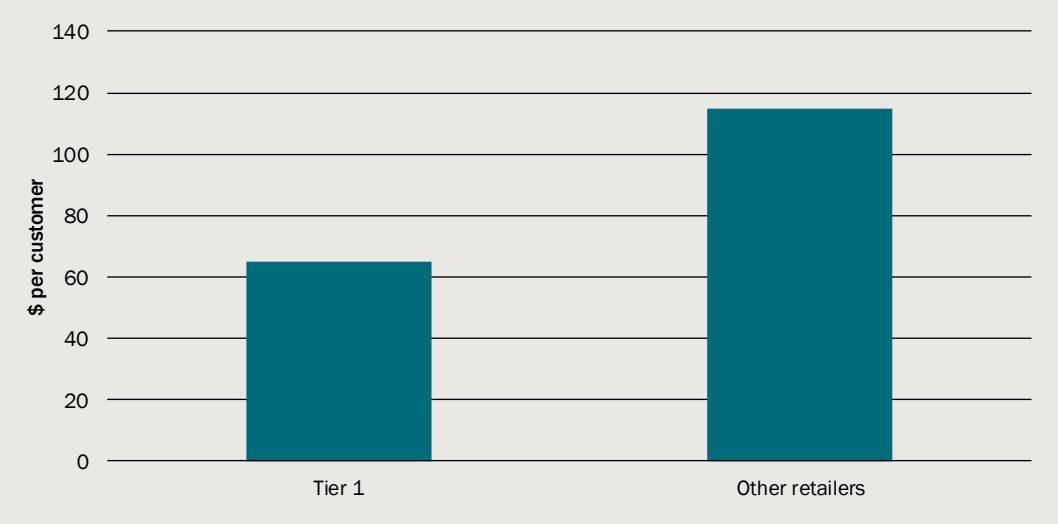
Competition may increase or decrease costs depending on the characteristics of the industry in question. In the retail electricity sector, a bit over half of costs are the costs to serve customers, such as billing and debt management. The remainder are costs to acquire and retain customers, such as advertising, door-to-door salespeople and customer retention teams. Competition has increased costs in two ways.

First, lower concentration results in smaller firms, and these firms benefit less from economies of scale. Costs to serve are characterised by substantial economies of scale, as

95 Independent Review Panel 2014, 'Electricity & Gas Retail Markets in Victoria'

shown by the much lower costs to serve per customer of the larger 'Tier 1' retailers than smaller retailers (chart 11.3).

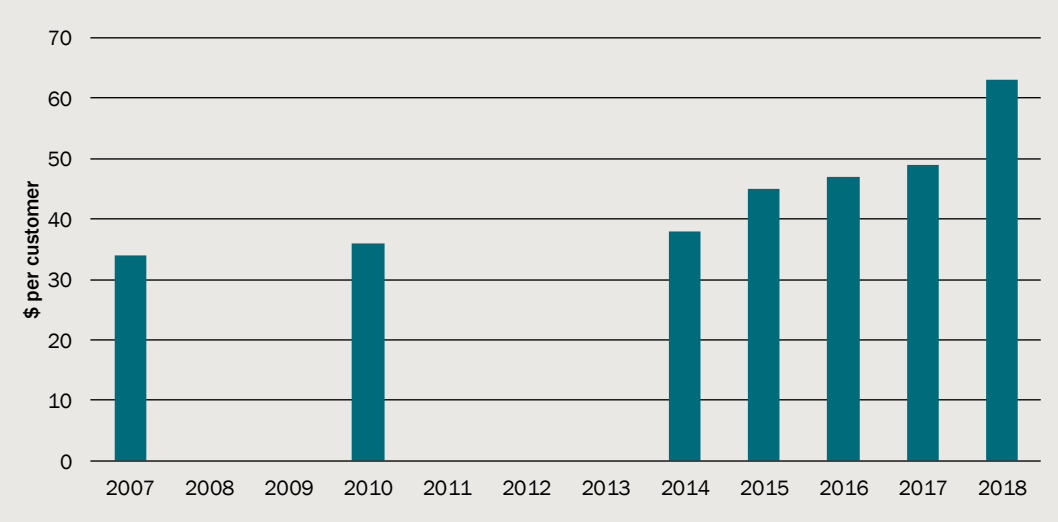
11.3 National Electricity Market wide cost to serve by retailer tier, 2017/18



Data source: ACCC 2019, Inquiry into the National Electricity Market – August 2019 Report, p. 104.

Secondly, competition results in firms incurring substantial costs to retain and acquire customers. If the market were more concentrated these costs would be smaller, and if it were a regulated monopoly these costs would be near zero. Costs to acquire and retain are substantial and have increased over the past decade (chart 11.4).

11.4 National Electricity Market wide cost to acquire and retain residential customers



Note: 2017/18 dollars, excluding GST.

Data source: ACCC 2019, Inquiry into the National Electricity Market – August 2019 Report, p. 108.

Of course, competition may also decrease costs by placing pressure on retailers to find efficiencies. This appeared to be important in the retail trade and equities exchanges discussed earlier. However, given that almost half of costs are costs to acquire and retain customers, and these costs would be close to zero in the absence of competition, it is likely that the competition has increased costs overall.

12 Telecommunications

Mobile networks

Research by the OECD has found, as might be expected that in countries where there are a larger number of mobile network operators that there is a higher likelihood of competitive and innovative services being introduced. [96]

This is characterised by:

- lower prices - increased competition is a reduction in prices or an increase in the content of the offer, and has been observed across a range of countries. This has been driven by the entry of new operators with innovative products and lower prices, as well as incumbents responding to new entrants.
- Simplification of offers – addition competitors have resulted increase simplicity of bundles. This gives consumers greater ability to understand and compare offers.

Similarly, where mobile network operators have merged or left the market the reduction in wholesale competition has seen the opposite impacts and the reduced competitiveness of mobile virtual network operators, who rely access arrangements with infrastructure owners to provide services.

This is somewhat reflected in Australia's experience. Until 2009 there were four network operators: Telstra, Optus, Vodafone and Hutchinson-3. In 2009, the two networks with the smallest market shares, Vodafone and Hutchinson-3, merged to form Vodafone Hutchison Australia. Following the merger, it was noted that: [97]

- the general downward trend in the pricing of traditional mobile services (e.g. voice and SMS) has tended to continue
- data prices have been more volatile and, in some cases, have increased when accounting for the change in amount of data included in bundles.
- consumers have generally received less included data in mobile bundles.

These observations were based on data provide by the 3G networks and do not appear to reflect the productivity improvements benefited the entire sector from the introduction of 4G technology. Notwithstanding these observations of the impacts of competition, Australia's mobile infrastructure performs well compared to overseas markets. [98]

This finding that additional operators increase competition is consistent with the ACCC activities opposing the merger between TPG and Vodafone on the grounds that TPG

96 OECD 2015, Wireless Market Structures and Network Sharing.

97 OECD 2015, Wireless Market Structures and Network Sharing, p. 25-29.

98 Productivity Commission 2017, Telecommunications universal service obligation - Inquiry Report, p. 75.

would likely enter the mobile market and provide additional competition.[99] Although this merger was later allowed following a court decision, it illustrates the preference of competition regulators for additional entrants into the mobile services market to increase competition.

Fixed line network

Australia's broadband services provides high prices and low quality relative to other countries of similar density.[100] There are a variety of reasons for this. One factor is that customers found it hard to compare the quality of different home broadband products, resulting in poor outcomes.

NBN Co is the dominant operator of 'access infrastructure', which connects individual premises to the backhaul network. Retailers, such as Telstra and Optus, pay NBN Co for the right to use the access infrastructure and then sell internet plans to customers. A key aspect of quality is the actual download speed provided by the retailer. However, customers could not observe actual speeds. Instead, retailers typically advertised a set of plans with different 'maximum' speeds, such as 12 megabits per second (Mbps), or 100 Mbps.

Due to a lack of transparency around quality, competition did not succeed in delivering products that met customers' expectations. Information about quality was deficient in at least two ways.

1 Customers could not observe the quality of the access infrastructure that connects to their home. Often this infrastructure is too poor to deliver the maximum speeds of some plans, for instance because the copper wire is degraded. As a result, many purchased expensive plans with high maximum speeds, even though the infrastructure is not technically capable of delivering these speeds to them. The *majority* of Telstra's fibre to the node customers on their 100 Mbps plan could not achieve this speed, and almost half of its fibre to the node customers on their 50 Mbps plan could not achieve this speed.[101]
2 Customers could not observe the speeds they are likely to attain in busy periods, such as the evening, when many households are using the internet. Due to this many retailers only purchased the right to transfer small amounts of data per second over the access infrastructure. In the evening, this small entitlement to transmit data per second is spread over many users. This results in evening speeds that are very far below the maximum speeds.

Regulators have sought to improve information about quality, which may result in competition delivering better outcomes. Regarding the first issue, many retailers have now entered into enforceable undertakings to inform customers of the maximum speeds

99 https://www.accc.gov.au/media-release/accc-opposes-tpg-vodafone-merger

100 Productivity Commission 2017, Telecommunications universal service obligation - Inquiry Report, p. 75.

101 ACCC 2017, Telstra offers to compensate 42,000 customers for slow NBN speeds.

attainable on the infrastructure connecting to the customer's premises. To address the second issue, the ACCC has issued guidance that states retailers should provide accurate information on actual speeds in busy periods.[102]

With respect to ELNOs, we do not expect complexity of products to impact on the effectiveness of competition as:

- ELNO services are in significantly less complex, with specific prices per transactions
- ELNO customers are conveyancers and solicitors, who have commercial incentives seek out lower costs and improvements in product quality
- although ELNO fees are passed onto end consumers, we would expect that in selecting a conveyancer for a transaction, consumers would take into account the price difference of disbursements.

[102] ACCC 2019, 'Broadband speed claims: Industry guidance'

PART III

Appendices

A Cost-benefit analysis technical appendix

This appendix outlines the economic logic being the cost-benefit analysis theoretical and presents the key assumptions for the analysis.

Market assumptions

The size of the market for ELNOs can be defined in terms of:

- the number of transactions occurring – this determines the overall level of activity as well as the potential revenue for ELNOs. Information on the number of transactions was provided by state and territory registrar offices (table A.1). Over time the number of transactions is assumed to grow by 2 per cent per annum, which is consistent with assumptions made in a cost-benefit analysis considering the benefits of eConveyancing compared to paper conveyancing.[103]
- the share of transaction undertaken by each ELNO. This varies across the base case and options considered in the analysis and are shown in charts A.2 and A.3. With eConveyancing mandated in many states, this sees almost all transactions being provided by either PEXA or Sympli, as opposed to paper.
- the number of potential subscribers – this the number of conveyancers and lawyers offering conveying services. This is broken into subscribers, which are legal and conveyancing practices who undertake conveyancing, and ELNO users who consist of conveyancing and solicitors. We have assumed that in Australia there are 10 000 potential subscribers, based on consultations with stakeholders. Information on potential ELNO users is based on data on the number of solicitors registered across jurisdictions and information on the number conveyancers from the AIC (table A.4). We determine the number of solicitors offering conveying services by taking the number in private practice and multiplying this by 40 per cent, which was the share of solicitors in private practice offering conveying services used by AECOM 2019.[104] The number of conveyancers and solicitors is assumed to remain constant over the evaluation period.
- the share of legal and conveyancing practices that subscribe to each ELNO. This varies across the base case and options considered in the analysis and are shown in charts A.5, A.6 and A.7. Overtime, this is expected to increase due to mandating eConveyancing and from eConveyancing being introduced to the remaining jurisdictions.

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103 Deloitte Access Economics 2018, Impacts of e-Conveyancing on the conveyancing industry, prepared for PEXA.

104 AECOM 2019, Estimating costs of electronic conveyancing services in NSW, prepared for IPART, p.6

Number of conveyancing transactions

A.1 Conveyancing transaction data 2019

	Transfer	Mortgage	Discharge of mortgage	Caveat	Withdrawal of Caveat	Priority notice	Extension priority notice	Withdraw priority notice	Other
	No.	No.	No.	No.	No.	No.	No.	No.	No.
Number of transactions									
NSW	178 240	233 153	250 295	18 161	12 803	3 457	57	257	136 230
VIC	196 731	243 141	253 785	32 048	18 014	1 450	15	102	54 521
QLD	162 055	155 989	183 272	11 282	0	52 270	NA	NA	68 045
WA	59 270	64 695	67 375	5 527	6 017	NA	NA	NA	49 387
SA	46 264	53 104	55 251	2 582	1 844	NA	NA	NA	27 144
TAS	16 523	19 349	20 891	1 771	988	1 445	2	9	8 885
ACT	11 376	15 725	16 869	510	416	NA	NA	NA	16 311
NT	6 148	7 200	7 774	659	368	538	1	3	3 306
Total	**676 607**	**792 356**	**855 513**	**72 541**	**40 449**	**59 159**	**74**	**371**	**363 829**
Number of eConveyancing transactions									
NSW	153 732	210 195	223 112	16 559	9 758	3 457	57	257	18 245
VIC	184 686	238 604	246 301	31 558	17 119	1 450	15	102	26 192
QLD	6 857	52 984	65 357	1 030	0	4 880	NA	NA	2 670
WA	38 738	51 504	55 888	2 708	3 114	NA	NA	NA	0
SA	5 498	25 036	29 504	1 024	501	NA	NA	NA	2 353
TAS	0	0	0	0	0	0	0	0	0
ACT	0	0	0	0	0	NA	NA	NA	0
NT	0	0	0	0	0	0	0	0	0
Total	**389 511**	**578 323**	**620 162**	**52 879**	**30 492**	**9 787**	**72**	**359**	**49 460**

	Transfer	Mortgage	Discharge of mortgage	Caveat	Withdrawal of Caveat	Priority notice	Extension priority notice	Withdraw priority notice	Other
	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent
eConveyancing share of total transactions									
NSW	86	90	89	91	76	100	100	100	13
VIC	94	98	97	98	95	100	100	100	48
QLD	4	34	36	9	NA	9	NA	NA	4
WA	65	80	83	49	52	NA	NA	NA	0
SA	12	47	53	40	27	NA	NA	NA	9
TAS	0	0	0	0	0	0	0	0	0
ACT	0	0	0	0	0	NA	NA	NA	0
NT	0	0	0	0	0	0	0	0	0
Total	**58**	**73**	**72**	**73**	**75**	**17**	**97**	**97**	**14**

Note: Data was not available for Tasmania and Northern Territory. The number of transfers for these jurisdictions were interpolated using dwelling turnover rate for the other states and territory and applying it to the dwelling stock in Tasmania and Northern Territory. Other transactions were interpolated based on the breakdown of transactions for the other states and territory. Jurisdictions provided varying disaggregation and classification of data – NA in the table denotes data which could not be identified.

Source: State and Territory Land Registry Services.

Market share of each ELNO

The market share of ELNOs across the base case and options are shown in chart A.2 and A.3. The market share for 2021 is based on the observed number of eConveyancing transactions for the first half of 2020, or for 2019 where 2020 data is not available, and scaled by the assumed growth rate for conveyancing transactions.

For future periods, we have assumed:

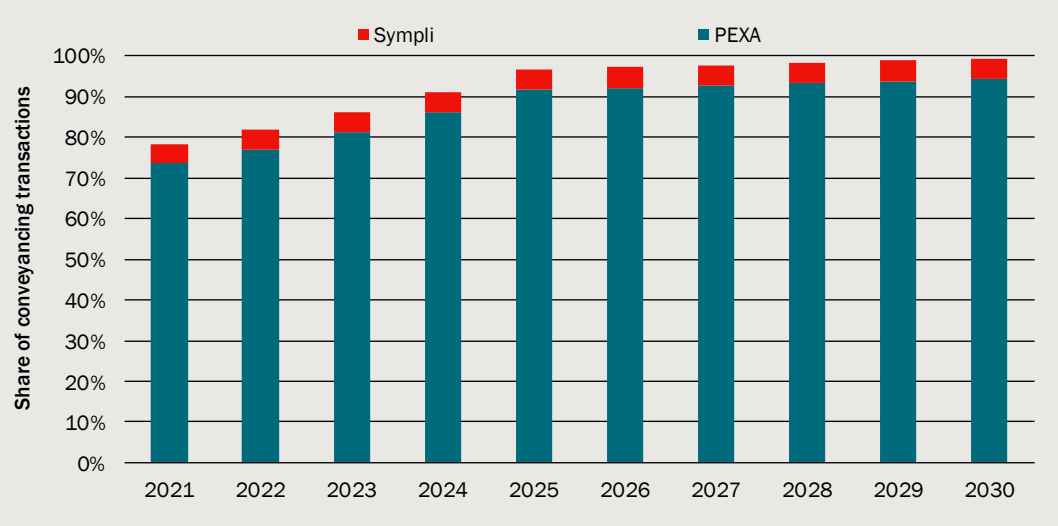
- mandating will see all transactions being completed via eConveyancing by 2025 in jurisdictions, which currently have eConveyancing (NSW, Victoria, Queensland, Western Australia and South Australia)
- In jurisdictions without eConveyancing, we assume it will be introduced in:
  - 2020 in the ACT
  - 2023 in Tasmania and the Northern Territory.

  We assume that conveyancing will initially account for 10 per cent of all conveyancing transactions, and will increase by 10 percentage points each year. Because of timing of eConveyancing being introduced into these jurisdictions and the assume growth profile by 2030, ELNOs are expected to account for just under 100 per cent of conveyancing transactions.

Across the scenarios we have also made a range of assumptions around the market share of the two operators, PEXA and Sympli.

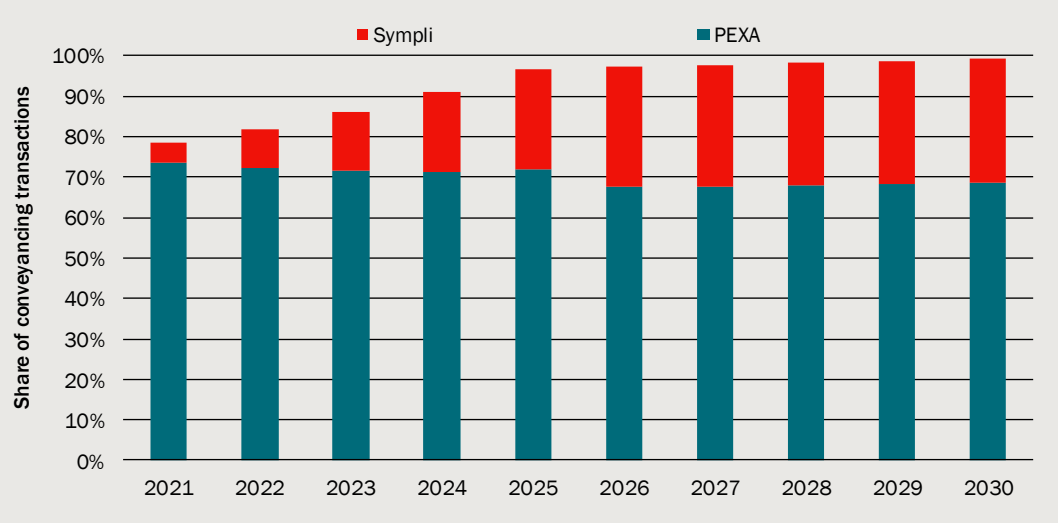
- Under all scenarios PEXA is assumed to account for all of the eConveyancing market in 2020, based on consultations.
- Under the central base case and price regulation option, Sympli is assumed to capture 5 per cent of the market, with PEXA accounting for the remaining share of the market

A.2 Market share of ELNOs – central base case and price regulation option



Data source: CIE.

A.3 Market share of ELNOs – multi-homing base case and interoperability option



Data source: CIE.

Potential subscribers

The total number of potential ELNO users are shown in table A.4. This implies an average practice size of 2.4 conveyancers or solicitors per subscription.,

A.4 Number of conveyancers and solicitors undertaking conveyancing

	Conveyancers	Solicitors
NSW	1 400	9 057
VIC	690	5 310
QLD	0	3 549
WA	529	1 548
SA	597	1 018
TAS	13	197
ACT	0	407
NT	31	72
Total	**3 260**	**21 158**

Note: The number of solicitors offering conveyancing services is estimated using the number of solicitors in private practice from the Urbis report, and assuming that 40 per cent offer conveyancing services. This assumption is based on AECOM 2019, Estimating costs of electronic conveyancing services in NSW, prepared for IPART, p.6.

Source: Urbis 2019, 2018 National Profile of Solicitors, prepared for Law Society of Australia. Appendix A; consultations with AIC.

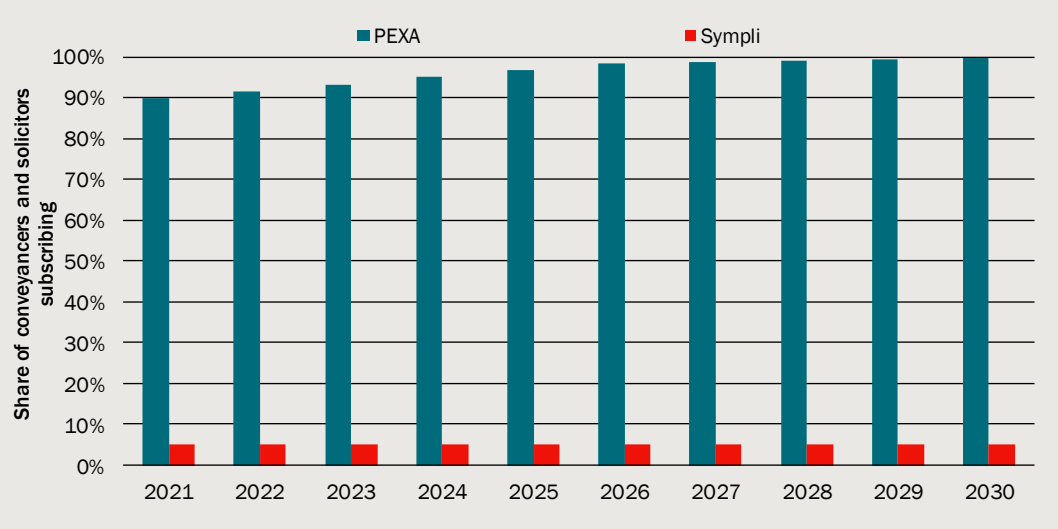
The total number of subscribers for each ELNO is determined by multiplying the number of potential subscribers (10 000) by the assumed share of practices using the service (this varies across each option and base case considered) and the share which subscribe to a particular ELNO. The number of subscribers is related to the market share of each ELNO and affects cost for ELNOs, associated with training and servicing subscribers and the total level of subscriber costs, associated with the onboarding with an ELNO

The number ELNO users is determined using the same approach but use information from table A.4 to inform the potential number of ELNO users. The number of users is used to inform training costs.

Enrolment for each ELNO by scenario

Under the base case without effective competition and the price regulation option we expect all practices to subscribe to PEXA, to complete the majority of multi-party transactions (charts A.5). We assume that around 5 per cent of potential subscribers subscribe to Sympli, reflecting that some users will prefer to use Sympli when possible, but maintain a subscription to PEXA for multi-party transactions. The share of subscribers here is related to the assumed share of transactions completed by each ELNO.

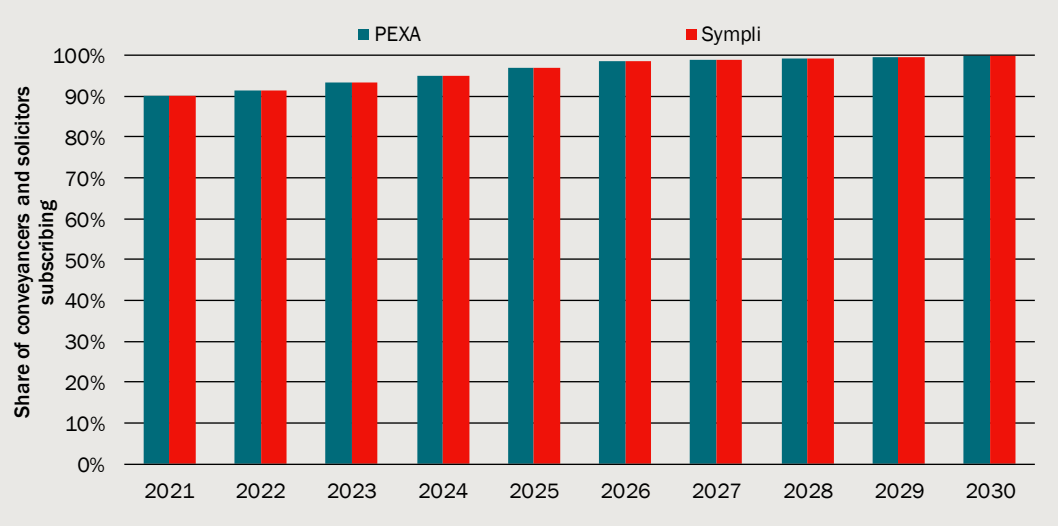
A.5 Share of conveyancers and solicitors subscribing – central base case and price regulation option



Data source: CIE.

Under the alternative base case of multi-homing, we assume that all potential subscribers must subscribe to both ELNOs, as either PEXA or Sympli would be used for multi-party transactions depending on the agreed platform (chart A.6). This doubles the costs to ELNOs to maintain subscribers, and the costs to ELNO users for training (cost assumptions are outlined later in this appendix) compared to interoperability where subscribers are only required to subscribe to their preferred ELNO. In addition to these costs there may be efficiency losses for users from switching between platforms, and increased risk of data entry errors – these have not been included in the analysis as these risks could not be quantified.

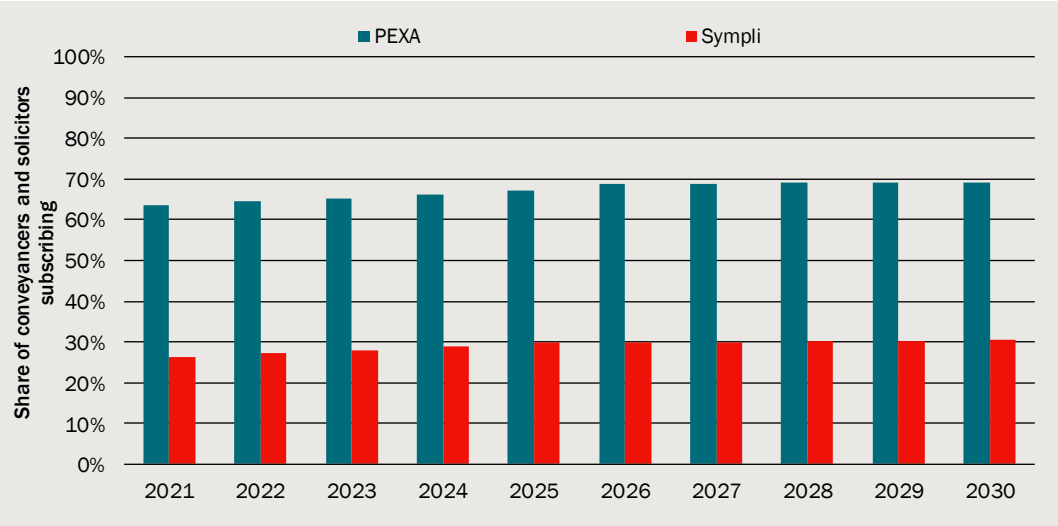
A.6 Share of conveyancers and solicitors subscribing – multi-homing base case



Data source: CIE.

Under interoperability we assume there is no multi-homing – conveyancers and solicitors are able to choose their preferred ELNO and complete transactions with all related parties (chart A.7). In this case we assume that the share of potential users subscribing to PEXA and Sympli is in line with the assumed market share of transactions.

A.7 Share of conveyancers and solicitors subscribing – interoperability option



Data source: CIE.

Benefit parameters

Benefits from reduced price distortions

The benefit of reduced-price distortions is measured using the marginal excess burden (MEB) of Stamp duty.

Unnecessarily high prices for electronic lodgment services (as with other goods and services) also has some broader efficiency implications. For property transfers, this is similar to the economic impact of stamp duty. The additional costs completing a transaction in an environment of low competition can be thought of as a tax on that transaction, like stamp duty (although the additional revenue raised would go to the incumbent ELNO with market power, rather than the government).

There are several credible studies that estimate the MEB for a range of Australian taxes, including stamp duties on conveyances (table A.8).

A.8 Relative efficiency of selected taxes (descending order), by study

KPMG Econtech [a]		KMPG Econtech		Commonwealth Treasury	
2010	MEB [b]	2011	MEB [b]	2015	MEB [b]
Municipal rates	0.02	Land tax	0.09	Broad based land tax	-0.1
GST	0.08	GST	0.12	Personal income tax (labour & capital)	0.16
Land taxes	0.08	Personal income tax	0.24	Broad based GST	0.17
Labour income tax	0.24	Motor vehicle stamp duty	0.33	Current GST	0.19
Conveyancing stamp duties	0.34	Payroll tax	0.35	Labour income tax	0.21
Motor vehicle stamp duties	0.38	Company tax	0.37	Company tax	0.50
Corporate income tax	0.40	Commercial transfer duty	0.74	Stamp duty on conveyances	0.72
Payroll tax	0.41	Residential transfer duty	0.85		

[a] Modelling and results were prepared for and incorporated into the Henry Tax Review

[b] Marginal excess burden is the cost of the tax due to changing it by a small amount (usually such that total government revenue increases by $1).

Note: In all studies, all taxes are imposed at the Federal level. That is, no taxes create a distortion that sees economic resources move across state borders within Australia

Sources: KPMG Econtech 2010, CGE analysis of the current Australian tax system, prepared for Department of Treasury, 26 March; KPMG Econtech 2011, Economic analysis of the impacts of using GST to reform taxes; Australian Treasury 2015, Understanding the economy-wide efficiency and incidence of major Australian taxes.

Estimates on the MEB of stamp duties range between 34 cents for every dollar of revenue collected and 85 cents for every dollar of revenue collected.

For this analysis we use the average of MEB of stamp duty estimates from the above studies, which gives a MEB of $0.64 per $1 prices exceed the efficient level.

We base the price impacts of competition on PEXA's pricing on the difference between PEXA's and Sympli's price structure. In particular, we assume that competition reduces PEXA's prices by 7.5 per cent, which is around half of the percentage difference between Sympli's and PEXA's prices. We have made this assumption recognising that PEXA has a first move advantage and that price is not the only way ELNOs may compete. This assumption is assessed in the sensitivity analysis.

The **net** efficiency gains (i.e. the benefit) from lower prices would be calculated as follows:

$$Net\ benefit = (P_i - P_n) \times MEB \times N$$

Where: P_i is the current price charged by the incumbent; P_n is the proposed price of the new entrant; MEB is an estimate of the marginal excess burden of stamp duties (see above); and N is the number of eConveyancing transactions.

Time savings from product improvement

An ELNO that is more 'user-friendly' could reduce the time to complete a transaction. In principle, 'time saving' benefits can be quantified as follows:

$$Benefit = T \times W \times N$$

Where: T is the estimated time saving per transaction (in hours or minutes); W is the wage rate of the person whose time is saved (i.e. the conveyancer); and N is the number of eConveyancing transactions.

We have assumed that interoperability results in a time saving of 3 minutes per transfer in the first year of interoperability and 1 minute per transfer in subsequent years.

We have included this benefit based on consultation with Sympli, which indicated from their own research they have determined there are may be time savings for completing particular documents, compared to PEXA's existing software. This observation that Sympli's system may be faster for some users was also identified by other stakeholders./ We recognise that both PEXA and Sympli work on improving their user interfaced – this benefit intends to capture the additional improvements which are likely to occur if ELNOs are competing for subscribers. This benefit is the additional time savings expected to be delivered to users in excess of the current and base case innovation.

Wage costs are estimated wage rates are assumed based on estimates of pay rates:[105]

- $34 per hour for conveyancers, based on an annual salary of around $62 000 ($44 including on costs)
- $50 per hour for solicitors, based on an annual salary of around $92 000 ($66 including on costs).

To this we have multiplied these costs by 1.3 to account for on costs. We have used the resource costs for labour (i.e. the actual cost of labour) as opposed to the opportunity cost. In a given period, the number of conveyancing transactions is determined by a range of factors in property markets, so when there is a productivity saving for all conveyancers and solicitors undertaking conveyancing, they cannot all collectively undertake more conveyancing in aggregate; to account for this and provide a conservative estimate we have the resource cost.

105 Wage rates are based on estimates from https://www.payscale.com/ for Sydney.

Cost parameters

Consolations with eConveyancing stakeholder has been undertaken to help inform cost parameters use in the cost benefit analysis. Key assumptions and possible ranges of estimates are summarised in table A.9.

A range of different values have been collected. For instance, for the ELNO direct connection costs, estimates range from between $1 million and $30 million. This reflects that costs are likely to vary across ELNOs, in particular PEXA is expected to incur higher costs in moving to an interoperable direct connection than Sympli, and also the uncertainty in costs. In this case we have assumed:

- $15 million cost for PEXA
- $5 million cost for Sympli

These costs lie within the range indicated from previous analysis and from consultations.

A.9 Cost assumptions

Cost	Description	Cost parameter	Source
Capital costs			
ELNO direct connection costs	ELNO internal development required to enable direct connection interoperability between the existing ELNOs. Assume cost includes API costs.	▪ 15 million for PEXA and ▪ $5 million for Sympli ▪ $25-$30 million for PEXA (PEXA estimate) ▪ $5.55 million for a benchmark ELNO ▪ $2-$13.3 million to develop a new ELNO	▪ CIE assumption based on consultations and below information ▪ PEXA 2019, Response to IPART Draft Report; Review of the Pricing Framework for electronic conveyancing services in NSW, p. 6. ▪ AECOM 2019, Estimating costs of electronic conveyancing services in NSW, prepared for IPART, p. 34. ▪ Deloitte 2018, The future of the Australian conveyancing industry 2025 and 2030, p. 62-63.
ESB development cost	CAPEX associated with developing the ESB	▪ $1.5 million for physical ESB ▪ $0.27 million for API ▪ Assume 100 per cent contingency, giving total costs of $3.5 million	▪ ESB costs: ITWG preliminary cost estimates ▪ API development cost: AECOM 2019, Estimating costs of electronic conveyancing services in NSW, prepared for IPART, p. 34. ▪ CIE assumption.
ELNO transition to ESB	CAPEX to establish connection between ELNOs and the ESB	$0.21 million	AECOM 2019, Estimating costs of electronic conveyancing services in NSW, prepared for IPART, p. 34.

Cost	Description	Cost parameter	Source
Related party capital costs	CAPEX of related parties for technical and legal costs to facilitate interoperability	$0.5 million	CIE assumption.
Related party document review	Cost of and contractual changes for banks to amend contracts to refer to ELNOs in general as opposed to PEXA specifically	▪ $50 000 to review agreements. One off industry wide cost – if other banks require different terms these costs would be incurred again. ▪ Assume costs of $200 000 (allows up to four versions of contracts)	▪ Stakeholder consultations. ▪ CIE assumption.
Operating costs			
ELNO cost of maintaining subscribers	Costs incurred by the ELNO relating to: ▪ onboarding, training and retention ▪ producing and managing digital signing keys	▪ $600 per year per subscriber to provide customer support (e.g. customer call centre, training and seminars etc.) ▪ $500 per year per subscribe for digital signing	AECOM 2019, Estimating costs of electronic conveyancing services in NSW, prepared for IPART, p. 16.
ELNO testing costs	Costs incurred by ELNOs relating to testing of major and minor updates with related parties. The costs are assumed to increase with interoperability. Note the costs to the ELNO of ongoing product development and maintenance of other connections are assumed to be the same under the base and project case (i.e. with and without interoperability)	▪ Assume costs of $1.5 million per ELNO per year ▪ Assume costs are 20 per cent higher with interoperability.	▪ Stakeholder consultations. ▪ CIE assumption.
ELNO insurance costs	Additional insurance costs due to interoperability.	▪ ELNO insurance premiums range from $100 000 to $300 000 per year. ▪ Assume that interoperability increases costs by 50 per cent. ▪ In the analysis we use the high estimate, so interoperability increases costs by increases by $150 000 for each ELNO.	▪ Stakeholder consultations. ▪ CIE assumption.
ESB operating costs	OPEX associated the ESB infrastructure	$0.225 million per year	ITWG preliminary cost estimates
Related parties operating costs	Costs incurred by related parties relating to the testing of major and minor updates. The costs are assumed to increase with interoperability.	▪ Revenue NSW submission to IPART analysis: – $125 000 per major release	▪ NSW Government 2019, NSW Government's response to draft report on the Pricing framework for eConveyancing services in NSW, p. 10.

Cost	Description	Cost parameter	Source
		– $69 079 per minor release (based on the ratio of major and minor release costs determination by IPART) ▪ Assumes 1 major 1 minor updates each year. ▪ Assume costs are 20 per cent higher with interoperability.	▪ Consultations with stakeholders and CIE assumptions. ▪ CIE assumption.
State Revenue Offices	Customer support cost incurred by State and Territory revenue offices. Interoperability may result in an increase in these inquiries.	▪ $608 000 annual costs for Revenue NSW for ELNO subscriber support for NSW. ▪ Assume costs for other states are proportional to the number of transfers (which we understand are the main source of customers queries. ▪ Assume costs are 20 per cent higher with interoperability.	▪ NSW Government 2019, NSW Government's response to draft report on the Pricing framework for eConveyancing services in NSW, p. 8. ▪ CIE assumption.
Price regulation	Cost to the regulator, ELNOs and related parties from more structured price regulation or monitoring.	$1.3 million per regulatory period (assume 4 years): ▪ $1 million costs for regulator ▪ $0.1 million costs for each ELNO ▪ $0.1 million costs for related parties in total	CIE assumption.
Subscriber costs (onboarding)	Costs to subscribers associated with onboarding, which includes: ▪ completing and signing the relevant forms and Participation Agreement, ▪ providing supporting documentation ▪ identify verification ▪ training on the new software	4 hours per year per subscriber Hourly rates of $44 per hour for conveyancers and $66 per hour for solicitors (includes on costs).	Consultations with stakeholders and CIE assumptions.
User costs (onboarding)	Costs to ELNO users subscribers associated with onboarding, which includes training on the new software	4 hours per year per subscriber Hourly rates of $44 per hour for conveyancers and $66 per hour for solicitors (includes on costs).	Consultations with stakeholders and CIE assumptions.
User costs (ongoing training)	Costs to ELNO users associated with ongoing training relating specifically to an ELNO platform.	4 hours per year per subscriber	Consultations with stakeholders and CIE assumptions.

Cost	Description	Cost parameter	Source
		Hourly rates of $44 per hour for conveyancers and $66 per hour for solicitors (includes on costs).	

Note: Variations on the above values exist (such as operating costs for small, medium and large cars, accidents taking place on rural versus urban roads etc.). Where appropriate, these alternate values have been selected based on project specific factors. Also note that $125 000 has been used as the testing cost for related parties per major release. This value was chosen, as opposed to the lower IPART determination figure as it includes costs associated with Revenue NSW system changes.

Source: As stated in the table.

Related parties operating costs

The cost of testing for State and Territory revenue offices is based on the costs of related parties supporting ELNO system changes. This has primarily been informed by information provided by Revenue NSW in a submission to IPART[106], and confirmed through consultations with stakeholders. This indicated that the Revenue NSW incurs a cost of $125 000 for each major product update by an ELNO, consisting of:

- the costs of testing the product update
- the cost of making changes to Revenue NSW's systems to accommodate the update.

In IPART's review of eConveyancing pricing made a determination relating to testing costs of:[107]

- $38 000 per major release
- $21 000 per minor release

These figures only include the costs of testing a product update, and exclude the cost of making changes to Revenue NSW's systems as a result of the update. This approach was taken as the cost of system changes are highly variable depending on the change proposed by the ELNO.

For the purpose of this study we have used this to quantify the cost of product updates to related parties (this has also been used to estimate the cost to ELNOs from testing). We have used the $125 000 cost for major updates, and $69 079 for minor updates (interpolated based on the IPART price determination for major and minor releases) as this is likely to better reflect the total cost to related parties overtime. These costs are assumed to be the same for all related parties, as information was not available for the different stakeholders.

Under interoperability, we have assumed that these costs are 20 per cent higher – this assumption was based on consultations which indicated that testing costs may increase although the magnitude of this change is uncertain.

106 NSW Government 2019, NSW Government's response to draft report on the Pricing framework for eConveyancing services in NSW, p. 10.

107 IPART 2019, Review of the Pricing Framework for Electronic Conveyancing Services in NSW, Final report, p. 70.

B ELNO pricing schedules

ELNO fees are collected from each subscriber representing a party to the document. For a two-party document such as a transfer, the ELNO collects a fee from both subscribers representing the transferor and transferee. The fees vary between documents and also depend on whether it involves a single or multiple titles.

PEXA and Sympli adopt a similar pricing structure, however this approach is not mandated by the legislation or operating requirements. ELNOs could choose to adopt alternative pricing structures.[108]

For some transactions several fees will be collected. A single transfer in the data provided will result in two transfer fees being collected (table B.1). Also, the common four party transaction (a transfer with incoming mortgagee and discharging mortgagee) will result in fees relating to:

- transfer for the seller
- transfer for the buyer
- mortgage, and
- discharge of mortgage.

PEXA's and Sympli's current price schedules are shown in tables B.2 and B.3 respectively.

B.1 Number of times ELNO fee charged per transaction

Transaction	Number of times ELNO fee paid per transaction
Transfer	2
Mortgage	1
Discharge of mortgage	1
Caveat	1
Withdrawal of Caveat	1
Priority notice	1
Extension priority notice	1
Withdraw priority notice	1
Other	1

Source: PEXA 2014, PEXA System Pricing Policy, Version 5.5, 31 October 2014; Sympli2020, Pricing Policy, Version 2.2, June 2020; CIE consultations.

108 The current MORs mandate allow ELNOs to increase prices by up to CPI. We understand that an established ELNO wishing to change their price structure, may need to negotiate with ARNECC if these changes would increase the fees per transaction.

B.2 PEXA prices, effective 1 July 2019 - 31 December 2020

Transaction	Single Title	Multiple Title *
	$	$
Transfer Title	114.07	130.68
Transfer by Third Party	114.07	130.68
Caveat	16.06	27.94
Withdrawal of Caveat	16.06	27.94
Caveat with Financial Settlement	30.91	47.52
Withdrawal of Caveat with Financial Settlement	30.91	47.52
Mortgage	42.79	59.29
Discharge of Mortgage	20.68	32.67
Discharge of Mortgage with Financial Settlement	42.24	54.01
Mortgage with Caveat Withdrawal	42.79	59.29
Mortgage with Financial Settlement	57.20	73.59
Mortgage (Express Refinance)	57.20	73.59
Discharge of Mortgage (Express Refinance)	42.24	54.01
Priority Notice	9.13	9.13
Priority Notice Withdrawal	9.13	9.13
Priority Notice Extension	4.62	4.62
Transfer of Interest	76.01	92.29
Transfer of Interest with Settlement	114.07	130.68
Change of Name (WA only)	16.06	16.06
Change of Name with Financial Settlement (WA only)	30.91	30.91
Encumbrance	36.19	48.07
Discharge of Encumbrance	36.19	48.07
Survivorship (Notice of Death)	36.19	52.80
Survivorship (Notice of Death) with Financial Settlement	36.19	52.80
Transmission	36.19	52.80
Transmission with Financial Settlement	36.19	52.80
Transmission direct to beneficiary	36.19	52.80
Lease	42.79	59.29
Lease with Settlement	57.20	73.59
Nomination to electronic dealing	0.00	0.00
Nomination to paper dealing**	19.58	31.35
Consent	0.00	0.00
Form 24, Form 25, Notice of Sale, Notice of Acquisition	0.00	0.00
Title Information Re-Supply	5.61	N/A
Transfer of eCT control (VIC only)	0.00	0.00

Note: Includes GST.

Source: https://www.pexa.com.au/pricing

B.3 Sympli prices, financial year 2020/21

Transaction	Single Title	Multiple Title *
	$	$
Transfer	98.93	114.99
Caveat	13.94	24.82
Withdrawal of Caveat	13.94	24.53
Caveat with Financial Settlement	26.98	41.28
Priority Notice	7.87	7.87
Priority Notice Withdrawal	7.87	7.87
Priority Notice Extension	3.98	3.98
Mortgage	21.36	37.26
Discharge of Mortgage	13.49	24.81
Mortgage with Financial Settlement	29.23	45.12
Discharge of Mortgage with Financial Settlement	21.92	33.24
Title information resupply	5.62	N/A
Nomination	0.00	0.00
Consent (CoRD)	0.00	0.00
Form 24A, B & 25	0.00	0.00
Notice of Death	31.48	43.00
Transmission Application to Executor	31.48	43.00

Note: Includes GST.

Source: https://www.sympli.com.au/pricing/

C Comments from draft report

A draft report was dated 17 August 2020 has been widely circulated amongst stakeholders, including members of ARNECC, members of the Interoperability Technical Working Group and government stakeholders.

Several stakeholders have provided detailed feedback. In this appendix we summarise the substantive areas of feedback which affect the results of the CBA and distributional analysis.

This is not an exhaustive summary of comments – other feedback has been incorporated into the body of the report.

The base case

Feedback was provided around the which base case is most likely to occur. Recognising the uncertainty around the future development of the market for ELNs, we modelled two base cases:

1 A 'central base case' with standalone ELNOs, where there is no effective competition in the market for electronic lodgment services. In this market we expect the incumbent to capture almost all of the market and have considerable market power.

2 An 'alternative base case' with standalone ELNOs, where a competitive market for electronic lodgment services emerges, but some (or all) practices subscribe to multiple ELNOs (i.e. multi-homing of subscribers occurs) and incurring these related costs.

Some stakeholders suggested that the alternative base case is more likely than the central based case assumed in the analysis. To account for these comments, we have provided further analysis and justification of the choice of central base case in chapter 4. In any case, analysis of interoperability has been undertaken compared to both base cases, results of which are shown in chapter 7. The conclusions of the analysis are the same under both base cases.

Comments have also questioned the extent to which the costs of Sympli entering the market are sunk or will occur in the base case. The primarily relates to connections with banks, which we understand are currently being developed. the Although connections with banks are expected to be in place by the end of 2020/21[109], some costs could potentially be saved if interoperability was not pursued and Sympli chose to immediately exit the market (which is unlikely). We understand this could save up to $10 million in capital costs, however this would not affect the viability of interoperability. The net

[109] Eyers, J. 2020, Banks ready for settlements competitor, The Australian Financial Review, 24 August.

benefit of interoperability is sufficiently large, such that even attributing these connections costs to interoperability (which we do not believe is the appropriate approach) the conclusions of the analysis would be unchanged – interoperability would be still be preferred to stand-alone ELNOs and limited competition in the market.

Finally, some stakeholders have raised the prospect that even with interoperability, multi-homing will continue to occur as Sympli may not have full document coverage. In this case, Sympli users in in mandated jurisdictions would be forced to subscribe to PEXA to complete some transactions. We do not believe this is a material risk for the following reasons:

- Consultations with Sympli have indicated that by the end of 2021 almost all document are expected to be available on the platform, with a small number of less commonly used documents outstanding and likely to be delivered shortly thereafter.
- The analysis assumes that only 30 per cent of the market is captured by Sympli. Given the common document types will be available on Sympli, which account for almost 90 per cent of logments, and the low assumed market share we expect there would be few instances where a Sympli users is unable to complete a transaction. Of the 147 possible lodgment types in NSW in 2019, 122 had fewer than 1 000 lodgments and 88 had fewer than 100 lodgments.
- In the event a conveyancer or solicitor needs to complete an uncommon transaction there a several third-party e-settlement subscribers, who for a fee can complete the ELNO data entry on behalf of conveyancers or solicitors without access to that ELNO.

The benefits from competition and the role of interoperability

Various stakeholders have commented on the benefits from competition arising from interoperability. As we note elsewhere in this report, the future impacts of adopting a new market structure are uncertain ex-ante and assumptions are required to quantify these benefits. However, we are confident that interoperability will deliver competition benefits, consistent with previous analysis by the ACCC and IPART.

We have received comments around whether PEXA is currently charging monopoly prices or whether their prices are efficient.

- Feedback noted the IPART review of ELNO pricing which recommended using PEXA's prices as a maximum price for ELNOs. We have acknowledged this work, but also recognise that IPART has argued that interoperability between ELNOs has significant potential to promote competition, which IPART believes will provide an incentive for ELNOs to innovate, drive costs lower and improve the quality of their services.[110] We also note that IPART used a building block cost analysis to determine efficient costs, which allows firms to earn a reasonable return on capital investments. This approach is typically used to identify efficient prices for regulated monopolies

110 IPART 2019, Review of the Pricing Framework for Electronic Conveyancing Services in NSW, Final report, p. 25-27.

and will not necessarily reflect the efficient cost or prices in a competitive market. For instance:

- Capital costs are not treated as sunk, which inflates efficient prices. As these Capital costs are not treated as sunk in the building block prices which may imply that, which result in efficient prices based on the building block method being greater than market prices. The building block method bases prices on average costs. In a competitive market firms will set prices based on marginal costs which are likely lower than average costs.
- New ELNOs can be expected to enter the market when average costs are lower than market prices. This may occur if the capital costs of establishing an ELN is decreasing overtime, which we understand has occurred. This lower average costs, would allow a new ELNO to charge lower prices than the incumbent based on the building block cost analysis. We would argue that in this case the efficient price is that set by the market, which will likely be lower than the initial price of the incumbent. In this case, understanding prices based on a building block method is less relevant than understanding firm's marginal costs.

- Comments noted that ELNOs are capped by the CPI increase implying prices are well regulated. However, the ACCC has indicated that in the absence of competition and with an automatic pathway to increase prices in line with CPI, firms have little incentive to pass cost savings onto consumers.
- Comments also questioned our logic of using PEXA's sale prices to infer whether PEXA is charging monopoly prices, noting that many tech companies have very high valuations.
  - We disagree with the comparison of ELNOs to high value tech companies for two main reasons:
    - Total addressable market, or the total revenue opportunity available is an important determinant of valuation of tech companies.[111] Often the potential markets for tech businesses are very large, such that capturing even a small share of that market could justify a large valuation. Valuations may be driven by the potential to increase market share. This is not the case for eConveyancing; the market is very well defied with around 7 million transactions per year and PEXA currently accounts for almost all of the market. The market is unlikely to grow rapidly overtime and with the entry of Sympli, PEXA may lose market share. PEXA is unlikely to dramatically increase revenues from increasing market share.
    - The market is highly regulated, which limits the products which ELNOs can provide. For instance, ELNOs are restricted from providing upstream and downstream services (see operating requirement 5.6) to avoid issues around vertical integration. Similarly, we would not expect ELNOs to expand into overseas jurisdictions due to legal and regulatory differences for conveyancing. Because of this, we do not see the opportunity to expand into other markets or services a justification for the high valuation.

111 For instance see: https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/valuing-high-tech-companies#

Both of these factors mean that PEXA's valuation is unlikely to be driven by a large unaddressed market either by capturing increase market share in their core market or moving into related markets, which is often the case for high value tech companies. In this case we would expect a firm charging efficient prices to have a valuation in line with the company's capital base.

Several stakeholders have commented on the size of the time saving included in the draft report (3-minute time savings per transfer transactions every year interoperability is in effect). Some commented that this benefit is large, given the time spend in the ELNO software per transaction and improvements in user experience and are already being delivered. Others commented that these benefits may be reasonable, as there may be scope to automate almost all aspects of ELNO data input.

- We have chosen to reduce the benefit to 3-minute time saving per transfer in the first year of interoperability followed by a 1-minute improvement per transaction per year thereafter. We believe this balances the competing feedback and characterises the fact that firms do not only compete on prices, but also product quality.
- We also note that we not measured other aspects of innovation that may be valuable to stakeholders, which may suggest that this benefit conservative. These unquantified benefits include:
  - Improved customer experience, from the ELNO processes being more user-friendly
  - Improved user interfaces which may allow users to delegate tasks to more junior, lower cost, staff
  - Improved risk management from workflow management features which may help organisations better manage risks and reduce time spent rectifying errors.

Costs of interoperability

A range of stakeholders have commented on the capital and operating costs of interoperability. This is an important part of the analysis, and for this we have had to rely on the expertise and input of stakeholders. Based on this feedback we have updated several costs from the draft report:

- ELNO costs has been updated, allowing capital costs of $15 million for PEXA and $5 million for Sympli (Sympli costs are unchanged from the draft report)
- ELNO insurance costs have not been updated. There are varying views on insurance costs in an interoperable environment. We have chosen to include an additional cost to be conservative in the analysis. This is uncertain, and we note that even a very large increase in insurance costs, which is unlikely, would not affect the conclusions of the analysis
- Capital costs for related parties have been updated, recognising that related parties may incur additional technical and legal costs to facilitate interoperability, beyond the changes to operating costs already included in the analysis. The precise cost of this is uncertain, with stakeholder not able to provide an estimate, so we have included a $0.5 million capital cost in 2021, this may over or understate the actual cost to related parties and should be examined in future work by the ITWG.

- Capital costs for the ESB have been updated. The costs were based on work conducted for the ITWG, however these estimates were preliminary and high-level with considerable uncertainty. To account for this, we have used the costs for a more expensive physical ESB, as opposed to a cloud based ESB. We have also included a contingency, which sees the capital cost of the ESB increase from $0.5 million to $3.5 million, which includes costs for developing APIs. There may be scope for the ESB to be delivered at a lower cost but for this analysis we prefer the higher estimate due to the uncertainty around this.
- Operating costs for ELNOs have been updated. In the draft report we based the testing costs for ELNOs on the annual testing cost of related parties. Feedback was provided which indicated that this might underestimate the cost of testing. To account for this, we have adopted a higher annual cost of $1.5 million per year under the base case and assume that these costs are 20 per cent higher with interoperability.
- Operating costs for related parties have been updated.
  - We received feedback that testing costs may be overstated, as once ELNOs has competed industry wide testing of an interoperable API, ELNOs are likely to undertake regression testing on behalf of related parties.. Similarly, other stakeholders indicated that a one major and one minor update per year would more appropriately characterise the frequency updates. In previous work for IPART, AECOM indicated that major and or minor release vary from four times per year to once every 2 years.[112] Recognising these comments we have reduced the frequency of product updates to one major and one minor update per year. This reduces the costs to related parties of interoperability.
  - We received feedback that the additional customer support cost from interoperability may overstate costs, arguing that the volume of transactions is unchanged, so the number of inquiries is likely to remain constant. We recognise that this is uncertain, however we have not changed this assumption recognising that the interoperable environment may increase the complexity of support provided by SROs as staff may be required to understand several ELNO systems. We note that the incremental cost of this is around $3 million in present value terms and does not affect the conclusions of the analysis.
  - Operating costs for ESB has been updated to be consistent with updated capital costs based on a physical ESB of $225 000 per year.

Insurance costs and risks of interoperability

Some stakeholders have questioned the security risks from interoperability. The ITWG has been considering how interoperability may impact on insurance costs of ELNOs. Preliminary indications are that additional risks are incremental and insurable and might result in a modest increase in costs for ELNOs. This is consistent with other feedback from stakeholders. In addition to this, interoperability may reduce risk of errors for

112 AECOM 2019, Estimating costs of electronic conveyancing services in NSW, prepared for IPART, p. 48.

practitioners. By ensuring practitioners only need to subscribe to one ELNO, there may be a lower risk of errors due to increased familiarity with ELNO software

Another way of thinking about security risks is to ask how much higher the likelihood of fraud or errors from interoperability would have to be, compared to current arrangements, to change the conclusions of the CBA.

- If a small increase in risk changes the conclusion of the CBA, the risks and mitigation measures would need to be examined in far greater detail before proceeding with interoperability.
- If risks need to change by a lot to impact results, we can then focus on thinking about how realistic large changes in risks from interoperability might be. If large changes in risks seem unlikely, we can probably feel more comfortable in the robustness of results.

To assess this we have considered information on payments from NSW's Torrens Assurance Fund, which compensates people who suffer loss or damage as a result of the through no fault of their own in transacting property. We use this as a proxy for the cost of security risks. Extrapolating data for NSW and averaging over the past 9 years, we find an average loss of $14.4 per property transfer or $7.4 million in 2019/20 for all of Australia. Given the stream of benefits of interoperability, the risks of interoperability would need to be over 60 per cent higher for interoperability to not be viable. Based on consultations, this is an extremely unlikely outcome.

The costs of multi-homing

Several submissions indicated that costs of multi-homing may be overstated due to the way that the draft report interpreted subscribers. In the draft report, the number of potential subscribers was based on the number of conveyancers and solicitors in each jurisdiction – this was consistent with the analysis undertaken by AECOM for IPART.[113] This approach overstates the number of subscribers as each legal or conveyancing practice will, in general, have only one subscription for several users.

To correct for this, we have assumed that across Australia there are 10 000 potential subscribers, based on advice from stakeholders. Against the pool of 24 500 potential ELNO users (i.e. conveyancers and solicitors who undertake conveyancing), this implies an average firm size of 2.4 conveyancers or solicitors per potential subscriber (i.e. conveyancing or legal firm).

In estimating the costs of multi-homing, we have then split out costs which we expect to depend on the number of subscribers, and those which depend on the number of users.

- we assume that costs to ELNOs of maintaining subscribers depend on the number of subscribers – the costs for a specific ELNO will depend on the share of the 10 000 potential subscribers who subscribe to that ELNO

113 AECOM 2019, Estimating costs of electronic conveyancing services in NSW, prepared for IPART, p. 5-6.

- onboarding costs for new subscribers is assumed to depend on the number of subscribers, and includes the cost of completing and signing the relevant forms and Participation Agreement, providing supporting documentation and identify verification
- initial and ongoing training costs are assumed to depend on the number of users. We think this is appropriate as the all users will need to understand how to use the relevant ELNO software. Note the number of users is only calculated based on conveyancers and solicitors and does not include paralegals or other potential users of ELNO software, so is a conservative estimate of training costs.

We believe this more accurately reflects the costs structure of multi-homing. This update, and the differentiation between ELNO subscribers and ELNO users has been implemented in the CBA and throughout this report.

In addition to concerns around the number of subscribers, stakeholders have also questioned the cost parameters for multi-homing, including:

- whether we have captured the full costs of multi-homing. For example, we have not included costs to negotiate which ELNO to use or the cost of duplicated effort where mid transaction it is decided to revert. To be conservative we have excluded these costs are we have assumed that regulations around selection of ELNO will limit the time spent negotiating and instances where the ELNO is changed mid-transaction. This is conservative and including these costs would increase the costs of multi-homing.
- whether including a digital signature management cost for each ELNO duplicates costs. A stakeholder indicated that the use of open digital signatures would result in these costs only being incurred once (as opposed to once for each ELNO). We understand that PEXA currently uses closed digital certificates. Additional consultations indicated that the universal use of open digital certificates has not been resolved and may require changes to MORs. We consider this a separate issue and have not accounted for the use of open certificates in our analysis.
- whether the costs to ELNOs and time for subscribers and users from multi-homing overstates the costs of multi-homing. The parameters used in the draft report and those in this report are summarised in table C.1.
  - We have chosen to leave the ELNO subscriber cost unchanged to be consistent with work recently competed by AECOM for IPART.[114]
  - The time required for ELNO subscribers and users to onboard has been reduced from the final report. Following feedback, targeted consultations were undertaken with individuals with experience using ELNO software. This indicated that a lower time requirement could be appropriate, recognising there are likely to be large differences in time taken to train personnel, depending on firm size, specialisation in conveyancing and experience of staff.

114 AECOM 2019, Estimating costs of electronic conveyancing services in NSW, prepared for IPART, p. 16.

C.1 Multi-homing cost assumptions

Cost item	Draft report assumption	This report assumption
ELNO subscriber cost	$1 100 per subscriber per year [a]	$1 100 per subscriber per year [a]
Subscriber onboarding	8 hours	4 hours
User initial training	8 hours	4 hours
User annual training	8 hours	4 hours

[a] AECOM 2019, Estimating costs of electronic conveyancing services in NSW, prepared for IPART, p. 16.

Source: CIE.

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