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# **Review of the Commerce Commission's Analytical Framework for Starting Price Adjustments**

Report prepared for  
**Commerce Commission**

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## EXECUTIVE SUMMARY

The Commerce Commission has engaged Economic Insights to review the Commission's proposed analytical framework for making starting price adjustments within the context of Part 4 of the Act. In particular, we were asked to assess the reasonableness of the proposed framework within the context of default/customised price-quality path (DPP/CPP) regulation.

We have assessed the Commerce Commission (2011) analytical framework ('the analytical framework') against the following 10 criteria:

- provides incentives to invest and innovate
- provides incentives to promote efficiency
- shares benefits of efficiency gains with consumers
- limits the ability of suppliers to extract excessive profits
- is relatively low cost to implement
- is consistent with the current and projected profitability of suppliers
- is consistent with the DPP/CPP regulatory regime
- does not seek to recover excessive profits from previous regulatory periods
- promotes price stability
- is not unduly sensitive to parameter choice.

The analytical framework is found to satisfy all of the 10 identified criteria and to score well on all of them.

In particular, given that the Input Methodologies provide a potential alternative and divergent price path under CPPs compared to the DPP, it is necessary for the starting price adjustments methodology to attempt to reconcile these two potentially divergent paths. If this is not done there is a risk that businesses may 'flip flop' between the two alternatives depending on which was seen to present the most favourable returns (ie there would be an incentive to 'cherry pick' the two alternatives). This could lead to the Commission receiving an abnormally high number of CPP applications and would be counter to the intention of CPPs to provide a means of accommodating those electricity distribution businesses with business-specific circumstances.

This requires a different approach compared to more traditional approaches to setting starting prices in purely productivity-based regimes which typically set starting prices based on opening profitability only. These approaches would not reconcile the potentially divergent DPP and CPP price paths, except by accident.

To address this broader regulatory context it is necessary to undertake simplified building block analyses and determine a basis for reconciling potentially divergent DPP and CPP paths. The analytical framework fulfils this requirement.

## 1 INTRODUCTION

### Background

Under Part 4 of the Commerce Act 1986 the Commerce Commission ('the Commission') is required to set default price-quality paths (DPPs) for suppliers subject to default/customised price-quality regulation. These suppliers include non-exempt electricity distribution businesses (EDBs), gas distribution businesses (GDBs) and gas transmission businesses (GTBs).

As part of setting a DPP the Commission must specify the starting prices applying to each supplier, which must be either:

- a) the prices that applied at the end of the preceding regulatory period; or
- b) prices, determined by the Commission, that are based on the current and projected profitability of each supplier.

The Act does not expressly state a particular type of process that the Commission must employ to make starting price adjustments but they must be based on the current and projected profitability of suppliers.

A DPP has been set for EDBs for the period 2010–2015. However, the Act provides that the Commission may reset this DPP if an input methodology (determined on 23 December 2010) had applied at the time the DPP were reset (ie 30 November 2009) and that input methodology would have resulted in a materially different path being set. The Commission has until October 2011 to undertake the reset.

The Commission (2010) consulted on its views and a proposed approach for making starting price adjustments in its starting price adjustments for DPPs Discussion Paper. The paper set out a proposed framework for making starting price adjustments and discussed the components of that framework. Specifically, under the framework the Commission would calculate a return on investment (ROI) value for each supplier and compare this value with an ROI band centred on the calculated industry weighted average cost of capital (WACC) estimate.

The Commission received submissions from interested parties on the paper, including a supplementary submission package received from the Electricity Networks Association (ENA). ENA's supplementary submission included a report by Thomson and van Zijl (2010) (hereafter 'TvZ') which proposed a statistical approach for forecasting a supplier's ROI and determining a point estimate of ROI for use as part of starting price adjustments. The TvZ report has been separately reviewed by Economic Insights (2011).

Submissions from the major EDBs criticised the Commission's initial ROI band approach to setting starting price adjustments as not placing adequate weight on future profitability considerations. For instance, Vector (2010, p.6) stated 'the Commission should further consider whether and how future profitability could be appropriately assessed applying a less than building block approach (and thereby reducing the need for CPP [customised price path] applications and the overall cost of the regime)'. Powerco (2010, p.4) also stated 'the

proposed methodology is insufficiently forward looking, and makes no attempt to inquire into the circumstances facing the firm in the next regulatory period’.

In response the Commission has issued an Update Paper setting out a revised approach to determining starting price adjustments (Commerce Commission 2011). The Commission proposes to set starting prices so that suppliers may be expected to earn at least a normal rate of return over the regulatory period given assumed industry-wide growth rates in key output and input variables and using actual initial conditions observed for each business in 2009–10.

The Commission has engaged Economic Insights to review the Commission’s proposed analytical framework for making starting price adjustments within the context of Part 4 of the Act. In particular the review must assess the reasonableness of the proposed framework within the context of default/customised price–quality regulation under Part 4 of the Act.

The following section of this report examines the requirements of Part 4 of the Act, develops assessment criteria based on this, assesses the Commission’s approach against these criteria and assesses the reasonableness of key parameter choices made in illustrating the framework in Commerce Commission (2011). Conclusions are then drawn and comparisons made with alternative approaches to setting starting price adjustments in section 3.

#### About the author of this review

Denis Lawrence has undertaken numerous major energy supply industry regulation studies including: advising the Australian Energy Market Commission on its review of productivity–based regulation; advising the Commerce Commission on its price cap regulation of energy distribution; comparing the productivity of Australian and US gas distribution businesses; comparing the performance of New Zealand’s 29 electricity lines businesses and advising the Commerce Commission on appropriate X factors; comparing the performance of Australian and New Zealand gas distribution businesses for the Commerce Commission; comparing the productivity performance of the Australian state electricity systems with best practice in the US and Canada at both the system–wide level and for individual power plants; comparing the productivity, service quality and financial performance of 13 Australian electricity distribution businesses; and reviewing performance studies undertaken for regulators in NSW and Victoria. Denis has worked on productivity and regulatory issues for electricity utilities, regulators, state Treasury departments, international agencies and prospective investors.

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## 2 ASSESSMENT OF THE ANALYTICAL FRAMEWORK

### 2.1 Assessment criteria

The purpose of Part 4 of the Act is to promote the long-term benefit of consumers in the relevant markets by promoting outcomes that are consistent with those produced in competitive markets such that suppliers of regulated goods or services:

- ‘have incentives to innovate and to invest, including in replacement, upgraded, and new assets;
- ‘have incentives to improve efficiency and provide services at a quality that reflects consumer demands;
- ‘share with consumers the benefits of efficiency gains in the supply of the regulated goods or services, including through lower prices; and
- ‘are limited in their ability to extract excessive profits.’

Section 53K of the Act states that the purpose of default/customised price-quality regulation is to ‘provide a relatively low-cost way of setting price-quality paths for suppliers of regulated goods or services, while allowing the opportunity for individual regulated suppliers to have alternative price-quality paths that better meet their particular circumstances’.

The Act goes on to state that starting prices determined by the Commission should be based on ‘the current and projected profitability of each supplier’ and that they should not be used to recover any excessive profits from an earlier regulatory period.

Further generally desirable (albeit secondary) properties of starting price adjustments are that they promote price stability for consumers and are not unduly sensitive to parameter choices. Volatile prices make it more difficult for consumers to make informed consumption decisions and are thus more likely to lead to distortions in consumption patterns compared to prices that change more gradually. While section 53P(8)(a) of the Act provides for the Commission to set alternative rates of change for suppliers to avoid price shocks, a starting price adjustment method that subsequently led to more frequent changing between the DPP and CPP and associated increases in price volatility would be less desirable from the perspective of economic efficiency than a method that led to less changing and greater price stability.

Setting starting prices taking the projected profitability of each supplier into account inevitably involves forecasting future values of key parameters such as the growth rates of output and input quantities and prices. These forecasts inevitably involve a degree of uncertainty. A starting price adjustment methodology that is highly sensitive to the values of forecast parameters will be more dependent on the accuracy of those forecasts than one which is less sensitive to the values of key forecast parameters.

Based on these considerations in the next section we will assess the Commerce Commission (2011) analytical framework (‘the analytical framework’) against the following 10 criteria:

- provides incentives to invest and innovate

- provides incentives to promote efficiency
- shares benefits of efficiency gains with consumers
- limits the ability of suppliers to extract excessive profits
- is relatively low cost to implement
- is consistent with the current and projected profitability of suppliers
- is consistent with the DPP/CPD regulatory regime
- does not seek to recover excessive profits from previous regulatory periods
- promotes price stability
- is not unduly sensitive to parameter choice.

## 2.2 Assessment against the criteria

### *Provides incentives to invest and innovate*

By setting starting prices that are consistent with each business's actual initial costs (using the input methodologies) and with providing a normal rate of return over the future regulatory period assuming industry average growth rates for outputs and the key input variables for each business, the analytical framework allows businesses to invest at rates consistent with the industry average. Each business also has an incentive to produce outputs with fewer inputs (ie to innovate) to give them scope to earn higher than normal returns. Those businesses that face substantially less favourable operating environments than the industry average (eg lower output growth rates and/or higher input growth rates) have the option to apply for a CPP to address business-specific circumstances and provide for higher required rates of investment.

The analytical framework meets this criterion.

### *Provides incentives to promote efficiency*

By setting starting prices based on actual initial costs for each business and assuming industry average growth rates for outputs and inputs for each business over the next regulatory period, the analytical framework provides a strong incentive for businesses to maximise efficiency. Each business has an incentive to improve its efficiency to the maximum extent to earn higher than normal returns over the regulatory period. That is, each business has an incentive to achieve a productivity growth rate higher than it has historically.

An alternative approach to setting starting prices within the framework would have been to assume output and input growth rates consistent with those observed historically for each business rather than for the industry average. However, such an approach would be more likely to be susceptible to gaming on the part of each business in an attempt to influence its future starting price adjustment. By using the industry average growth rates for outputs and inputs the analytical framework is consistent with the underlying intention of productivity-based regulation of decoupling actual expenditure and revenue growth. This provides suppliers with a strong incentive to outperform the assumed growth rates built into the price path while not allowing them to directly influence those rates.

The analytical framework meets this criterion.

*Shares benefits of efficiency gains with consumers*

The analytical framework provides for consumers to share in efficiency gains to the extent of the industry average overall productivity growth rate implicit in the forecast output and input growth rates. Businesses are able to retain the benefits of higher than forecast average productivity growth rates within the period. Conversely, those businesses that face adverse output and/or input growth rates compared to the rest of the industry on average have the option of applying for a CPP to provide a means for consumers to share in the higher costs of service provision.

The analytical framework meets this criterion.

*Limits the ability of suppliers to extract excessive profits*

By incorporating output and input growth assumptions consistent with forecast industry averages and actual initial costs calculated for each business using the input methodologies, the analytical framework limits the ability of suppliers to extract excessive profits. Businesses that achieve forecast industry average output and input growth rates will earn a normal rate of return. Those that are able to achieve higher than forecast average productivity growth will be able to earn a higher than normal rate of return within the period. It is this that provides the incentive to improve performance above average levels. However, to earn higher than normal rates of return for an extended period, businesses will have to correspondingly achieve higher than industry average rates of productivity growth over that extended period.

The analytical framework meets this criterion.

*Is relatively low cost to implement*

The analytical framework uses information on actual business costs for the most recent year available from the previous regulatory period plus forecasts of industry average output and input growth rates based largely on extrapolation of past growth rates. The information on actual business costs can be expected to be available from Information Disclosure Data (IDD) once the IDD are updated to incorporate the input methodologies. In the meantime the Commerce Commission is collecting this information directly from businesses. Because industry average output and input growth rates are used for all businesses for the upcoming regulatory period and these are based largely on extrapolation of past growth rates and other high level forecasts, there is no need to forecast these rates on a business-specific basis as would be the case under a full building blocks method, for example. The framework is also implemented using relatively simple spreadsheet methods without the need for specialist software or specialised statistical knowledge.

The analytical framework is, therefore, relatively low cost to implement and thus meets this criterion.

*Is consistent with the current and projected profitability of suppliers*

The analytical framework uses information on current cost levels for each business at the start of the regulatory period and sets the starting price adjustments using this information combined with forecast revenues and costs for the upcoming regulatory period based on industry average growth rates in output and input. This allows the starting price adjustment

for each business to be set to allow a normal rate of return over the upcoming regulatory period as a whole assuming it has the industry average growth rates in outputs and inputs. The framework therefore considers the upcoming regulatory period as a whole rather than focusing on a year at the start of the upcoming regulatory period or at the end of the preceding regulatory period as was the case with the ENA/TvZ proposal and the Commission's initial ROI band proposal. The analytical framework therefore appears to address the requirement for starting price adjustments to be consistent with current and future profitability of suppliers in a significantly more comprehensive way than either of the earlier proposals.

*Is consistent with the DPP/CPP regulatory regime*

Given that the Input Methodologies provide a potential alternative and divergent price path under CPPs compared to the DPP, the starting price adjustments methodology should ideally attempt to reconcile these two potentially divergent paths. If this is not done there is a risk that the businesses may 'flip flop' between the two alternatives depending on which was seen to present the most favourable returns (ie there would be an incentive to 'cherry pick' the two alternatives). This could lead to the Commission receiving an abnormally high number of CPP applications and would be counter to the intention of CPPs to provide a means of accommodating those EDBs with business-specific circumstances.

The analytical framework provides a way of using the starting price adjustments to reconcile the two potentially divergent paths available to businesses. It does this by using the input methodologies to calculate initial actual costs and to calculate the change in starting prices necessary to provide a normal rate of return over the upcoming regulatory period assuming industry average growth rates for outputs and inputs and recognising the rate of change (or X factor) incorporated in the DPP. This removes the incentive for businesses experiencing growth rates around the industry average to move to a CPP where they might otherwise be able to obtain higher returns because of the divergence of the DPP and CPP price paths.

The analytical framework is thus consistent with the DPP/CPP regulatory regime and provides a means of reconciling the potentially divergent price paths under the two components. This differs from more traditional approaches to setting starting prices typically used in purely productivity-based regimes by setting starting prices based on opening profitability only. These approaches would not reconcile the potentially divergent DPP and CPP price paths, except by accident.

*Does not seek to recover excessive profits from previous regulatory periods*

Because the analytical framework only looks at opening or initial revenues and costs and forecast revenues and costs over the upcoming regulatory period to set a starting price adjustment to provide a normal return over the upcoming period, it does not seek to recover excessive profits from previous regulatory periods or compensate for under-recovery from past regulatory periods. It thus meets this criterion.

*Promotes price stability*

To the extent that the analytical framework is successful in reconciling the potentially divergent DPP and CPP price paths it should promote price stability and the avoidance of excessive step changes for consumers by reducing the incentive for businesses to opt for a

CPP simply to obtain higher returns (rather than as a means of having exceptional circumstances recognised).

*Is not unduly sensitive to parameter choice*

The analytical framework has four principal forecast parameters that influence the size of starting price adjustments. These are the constant price revenue growth rate, the nominal opex and nominal capex growth rates and the CPI. As expected, the starting price adjustment results are relatively sensitive to both the constant price revenue growth rate and CPI assumptions because both directly affect all of the revenue side of the profitability calculation. However, the rate of CPI growth has been relatively steady in recent years and is likely to remain so going forward and the growth in demand for energy, while subject to climatic influences from year to year, is likely to remain relatively steady in at least the medium term. Therefore, despite the sensitivity of the results to changes in these revenue-related growth rates, the relative stability in the trend growth of these components points to this not being a major problem.

The starting price adjustment results are considerably less sensitive to changes in the nominal opex and capex growth rates. Opex makes up less than half total costs and so changes in its nominal growth have a less than proportionate impact on the results. And the impact of changes in the capex growth rate are further reduced by the fact that capital is a durable input and only the depreciation and opportunity cost of capex enters total costs in a particular year. Hence, while opex and capex both have significant discretionary elements, the results are relatively insensitive to changes in their assumed growth rates.

The other choice presented in Commerce Commission (2011) is whether, given the unusual circumstance of setting starting prices part way through the first regulatory period (rather than at the start of the regulatory period as would be the case in future), starting prices be calculated on the basis of the remaining 3 years of the regulatory period or on the basis of all 5 years of the regulatory period. The results presented in Commerce Commission (2011) are relatively invariant to this choice.

Overall the analytical framework scores relatively well on this criterion.

In summary, the analytical framework satisfies all of the 10 identified criteria and scores well on all of them. It is, therefore, a reasonable approach to setting starting prices within the context of Part 4 of the Act.

### **2.3 Reasonableness of illustrative assumptions and choices**

As noted above, four future industry wide growth rates play an important role in the analytical framework. These are the growth rates of constant price revenue, the CPI, nominal opex and nominal capex. Commerce Commission (2010) uses annual growth rates of 1.5 per cent, 2.3 per cent, 3.8 per cent and 3.3 per cent, respectively, for these variables.

The assumed illustrative growth rate for constant price revenue of 1.5 per cent is derived by deducting an estimated average historical gap of 1 per cent from the constant price GDP growth rate forecast by the Reserve Bank of 2.5 per cent for the period 2011 to 2014. It should be noted this growth rate is considerably lower than the growth rate for total output

quantity of 2 per cent for the non-exempt EDBs using the results of Economic Insights (2009) which covers the period 1996 to 2008. This total output measure includes energy throughput, customer numbers and overall system capacity. The growth rates for the three components are 2.1 per cent, 1.4 per cent and 2.8 per cent, respectively.

To translate from total output quantity to constant price revenue we need to assume the three components used are good proxies for the items EDBs actually charge for and that the shares used reflect shares in total revenue. Little reliable or consistent information is currently available on actual revenue shares. The three items EDBs actually charge for can be broadly classed as variable energy use charges, fixed charges, and demand and capacity reservation charges for large users. Throughput will be a reasonable proxy for variable energy use volumes and customer numbers will be a reasonable proxy for fixed charge volumes. System capacity may be a reasonable proxy for demand and capacity reservation volumes but there is currently little information available on the charges large users pay. But if we assume the variables used in the total output index are reasonable proxies for corresponding constant price revenues then the Commerce Commission (2011) choice of a 1.5 per cent growth rate appears very conservative in favour of the businesses.

Further evidence for this proposition can be found in the productivity study submitted by the ENA (PEG 2009). This study uses a three output specification including energy throughput, customer numbers and non-coincident peak demands covering the period 1999 to 2008. It obtained a higher output growth rate of 2.3 per cent for this period with component growth rates of 2.4 per cent for throughput, 1.6 per cent for customer numbers and 2.5 per cent for non-coincident peak demands.

We accept that some conservatism is warranted in setting the constant price revenue growth rate given the impact of the global financial crisis and recent natural disasters, including the Christchurch earthquake. However, we consider the growth rate of 1.5 per cent is at the lower bound of likely growth rates and represents a choice that favours the businesses.

The other growth rate that has a significant impact on the analytical framework's starting price adjustment results is that for the CPI. Again, this is because this growth rate affects all of revenue received, as does the constant price revenue growth rate. Commerce Commission (2011) assumes a CPI growth rate of 2.3 per cent derived from the March 2011 Monetary Policy Statement and excluding the effects of the October 2010 increase in the goods and services tax as done in the input methodologies. Using official estimates of the future inflation rate and ensuring consistency of treatment with the input methodologies appears to be the most reasonable option available.

Commerce Commission (2011) assumes a future annual nominal opex growth rate of 3.8 per cent. It derives this by assuming that future opex partial productivity will be constant and so the quantity of opex would grow by 1.5 per cent per annum, the same rate as that assumed for future constant price revenue. Combined with an extrapolation of the labour cost index growth rate of 2.3 per cent, this produces the assumed nominal opex growth rate of 3.8 per cent.

The assumed 3.8 per cent annual growth rate compares with an annual growth rate of 1.9 per cent in the data used in Economic Insights (2009) covering the period 1996 to 2008. However, nominal opex fell by over one fifth between 1996 and 2000 before again increasing

from 2000 to 2008. The productivity study submitted by the ENA reported industry nominal opex as increasing by 1.7 per cent annually between 1999 and 2008. This compares with a corresponding annual increase of 3.8 per cent for the same period in the Economic Insights (2009) database. The difference appears to be mainly due to the ENA sponsored study's decision not to adjust for the aftermath of the Auckland CBD outage which gives it a higher opex starting level in 1999.

There is thus a range of information available on past nominal opex growth rates. The choice of an illustrative annual growth rate of 3.8 per cent is well within the bound of past growth rates. The assumption it is based on – that future opex partial productivity will remain constant – appears to be a relatively conservative one in favour of the businesses, especially when compared with the opex partial productivity growth rates of 2.5 per cent for non-exempt EDBs for 1996 to 2008 using the results of Economic Insights (2009) and of 3.2 per cent for the industry for 1999 to 2008 using the results of the study submitted by the ENA.

Commerce Commission (2011) obtains its annual nominal capex growth rate of 3.3 per cent from Asset Management Plans submitted by the EDBs. This is a reasonable approach in the context of the initial starting price adjustments as data on actual capex expenditure are not available from IDD sources prior to 2004. Rather, the capex reported in the earlier IDD are valued at the unit rates nominated for asset valuation purposes which may not bear a close resemblance to actual expenditure by each EDB. Economic Insights (2009) derived an approximate capex series from point asset valuation estimates. This produced an annual nominal capex growth rate of over 8 per cent for the period 1996 to 2008. But using information submitted by the EDBs in their Asset Management Plans is likely to be a preferred source of information for initial application of the analytical framework as it is direct rather than indirect information and is not dependent on point asset valuations which may not provide a basis for fully like-with-like comparisons. Improved IDD is likely to provide a better capex growth rate information source for applications of the analytical framework in future regulatory periods as continued use of asset management plan information could provide an incentive for gaming.

Another important item in the analytical framework is the initial conditions for each business. As presented, the analytical framework proposes taking actual costs and revenues (calculated using the input methodologies) for 2009–10. For most EDBs disclosed ROIs were lower in 2009–10 than they were in the preceding two years. To the extent that the lower ROIs in 2009–10 were due to higher costs in that year rather than lower output or other factors, then the resulting starting price adjustments would be likely to be lower than using the average of costs over the last three years, for example. However, the lower disclosed ROIs for 2009–10 could also be due to other effects such as the impact of CPI changes on revaluation terms which do not directly affect the cost terms used in the analytical framework. If this were the case then there would be little, if any, impact on using the costs from 2009–10 compared to, say, an average of the costs over the last three years.

It is important to note that an approach to setting starting price adjustments based on analysis of ROIs (such as the statistical approach proposed by TvZ) will be more sensitive to a wider range of influences beyond EDB control (such as the interaction of CPI and revaluation terms) than the analytical framework which simply utilises information on initial costs and

forecast growth in revenue and nominal opex and capex. Correspondingly, there is likely to be less need to utilise statistical methods in implementing the analytical framework although they could play some roll in future applications once the quantity and quality of data required to support such exercises increases. The use of 2009–10 initial conditions is likely to be a reasonable approach in the context of the initial starting price adjustments. If anything, it would be conservative in favour of the businesses in the event that the lower ROIs for that year were due to higher costs rather than other factors.

In future applications of the analytical framework, however, relying on one year – which is known in advance – for information on the initial conditions could allow gaming on the part of the businesses who would have an incentive to increase their reported costs in that year. This issue would need to be addressed in more detail prior to applications of the analytical framework for future regulatory periods.

Commerce Commission (2011) also discusses whether the analytical framework should be applied over the remaining three years of the regulatory period – and, hence, be entirely forward-looking – or applied over the whole of the regulatory period, even though two years of the current regulatory will have elapsed by the time changes could be made. The latter approach involves potential clawback of excessive returns earned in the first two years of the regulatory period (or compensation for under-recovery during those two years). This choice reflects the unique circumstance of the initial starting price adjustments being applied part-way through the first regulatory period rather than at the start of the regulatory period as would be the case for subsequent starting price adjustments. The Commission has called for submissions on these options but has drawn attention to potential impacts on future decision-making if the five year with clawback option were to be adopted.

Economic Insights is of the view that it would be preferable to implement the analytical framework on a purely forward-looking basis (ie the three year option rather than the five year option) given the unique circumstances of the current reset. This has least potential to distort EDB decision-making while giving all stakeholders the opportunity to become familiar with the framework and its implementation free of clawback considerations before implementation of a normal forward-looking five year application at the start of the next regulatory period.

### 3 CONCLUSIONS

This report has reviewed the analytical framework for starting price adjustments in Commerce Commission (2011) using 10 assessment criteria derived principally from Part 4 of the Act. The analytical framework satisfies all of the 10 identified criteria and scores well on all of them. It is, therefore, a reasonable approach to setting starting prices within the context of Part 4 of the Act.

In particular, the analytical framework is consistent with the DPP/CPP regulatory regime and provides a means of reconciling the potentially divergent price paths under the two components. This differs from more traditional approaches to setting starting prices typically used in purely productivity-based regimes by setting starting prices based on opening profitability only. These approaches would not reconcile the potentially divergent DPP and CPP price paths, except by accident.

The TvZ local level model, the alternative constant level model proposed in Economic Insights (2011) and the ROI band approach proposed in Commerce Commission (2010) all look at the issue of starting prices adjustments from a productivity-based regulation perspective. However, in determining what the most appropriate methodology for determining starting price adjustments is, the Commission has to take the broader regulatory context into account. This involves recognising that businesses have recourse to a building blocks-based CPP option as well as the productivity-based DPP.

Given that the Input Methodologies provide a potential alternative and divergent price path under CPPs compared to the DPP, it is necessary for the starting price adjustments methodology to attempt to reconcile these two potentially divergent paths. If this is not done there is a risk that businesses may ‘flip flop’ between the two alternatives depending on which was seen to present the most favourable returns (ie there would be an incentive to ‘cherry pick’ the two alternatives). This could lead to the Commission receiving an abnormally high number of CPP applications and would be counter to the intention of CPPs to provide a means of accommodating those EDBs with business-specific circumstances.

To address this broader regulatory context it will be necessary to undertake simplified building block analyses and determine a basis for reconciling potentially divergent DPP and CPP paths. The analytical framework fulfils this requirement.

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