WestNet's proposed costing principles

Submission prepared for Worsley Alumina

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1 Introduction

Worsley Alumina Pty Ltd (WAPL) was established in February 1980 following the discovery of deposits of bauxite ore in the eastern side of the Darling Range in the 1960s. WAPL's refinery commenced operations in 1984. The refinery has just completed an upgrade providing it with the capacity to produce 3.1 million tonnes of alumina each year.

WAPL's rail task involves the haulage of the following commodities:

- alumina;
- caustic;
- lime; and
- coal.

The purpose of this submission is to:

- highlight deficiencies in the Costing Principles prepared by WestNet; and
- suggest alternative principles where appropriate.

Worsley considers itself to be a potential operator on the rail network and as such the term "operator" is used to include both operators and proponents in this submission.

The remainder of this submission is structured as follows:

- section 2 considers the role of Costing Principles;
- section 3 considers general principles that should underpin the development of the regulator's evaluation of the Costing Principles;
- section 4 reviews the Costing Principles; and
- section 5 suggests inclusions to the Costing Principles.

2 Background – the role of the Costing Principles

The Costing Principles perform several functions under the Code, including:

- apportioning the costs of Australian Railroad Group (ARG) and its associates to WestNet and the other entities in the group;[1]
- guiding the quantification of price ceilings and floors under the regime for individual operators and route sections;[2]
- providing a basis for the attribution of revenue to the railway owner's own operations;[3] and
- providing guidance to an arbitrator who, under the Code, is required to give effect to, amongst other things, the Costing Principles.[4]

In practice, these functions make the Costing Principles one of the Regulator's key regulatory instruments. For example, the Costing Principles provide the vehicle for the regulator to influence the attribution of revenues to WestNet from the use of railway infrastructure by its associates.

This key role for the Costing Principles appears to have been largely overlooked in the Costing Principles prepared by WestNet – there is virtually no recognition on of their role in ensuring an appropriate assignment of costs for WestNet's associated entities' use of the network.

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1 Section 46 of the Code provides that the railway owner must comply with the Costing Principles in the keeping and presentation of the railway owner's accounts.

2 Section 46 of the Code and clause 10 of schedule 4 requires the floor and ceiling prices developed by the railway owner be consistent with the Costing Principles.

3 Section 8 of schedule 4 requires the revenue attributable to the railway owner's own operations on a particular route be determined in accordance with the Costing Principles.

4 Section 29 of the Code.

This oversight highlights a critical issue for the Costing Principles - they must be sufficiently detailed so as to not only give the Office of the Rail Regulator (who has significant information gathering powers in its own right) but also end users and operators confidence in the integrity and appropriateness of the cost allocation arrangements. The Costing Principles are a critical vehicle in providing confidence to users and potential operators in the integrity of the competitive above rail market.

It is also suggested that there is merit in looking beyond the Costing Principles to the competitive implications of these principles. For example, a further principle may involve an assessment of the scope for an access price to distort competition in either an above rail market or an end user market.

It is important that the access regime recognises that costing is only one element of the pricing regime. In other words, it is desirable that the regime incorporates measures to prevent distortions to competition in above rail or end user markets because failure to do so will undermine the accomplishment of the very goals that the development of the Costing Principles is designed to foster.

The key concern is that whilst the regime contains provisions that prohibit overt discrimination, it does not contain provisions which would ensure competitive neutrality in the downstream market. Such provision could be made by guaranteeing the application of the efficient component pricing rule (or the Competitive Imputation Pricing Rule as it was adopted in the Australasia Rail regime). Without similar provisions, the problem is that WestNet could comply with all of its regulatory requirements simply by quoting prices at the ceiling in all cases and exploiting its unique capacity to cross-subsidise the operations of its associate, including AWR, to gain effective control of the above rail market. This should be addressed through the Costing Principles. [5]

[5] It is understood that such a practice can be pursued with there being no discrimination between proponents and associates of WestNet.

3 Guiding principles for the assessment process

Given this critical role of the Costing Principles, it is suggested that they should be drafted with a view to achieving the following outcomes:

- achieving an appropriate allocation of cost to:
  - route sections; and
  - individual traffics operating on route sections;
- so as to:
  - ensure that operators and end users do not pay excessive prices for the use of the railway infrastucture;
  - ensuring operators are not placed at a competitive disadvantage relative to AWR and associated entities;
  - prevent cross subsidies in the rail system; and
  - provide confidence in the integrity of the arrangements through an audit process that reviews WestNet's cost allocation arrangements against the Costing Principles resulting in a published report on the findings.

The Costing Principles ultimately also provide a means of assigning the benefits of vertical integration to various interested parties.

4 Review of WestNet's Costing Principles

In this section, WestNet's proposed Costing Principles are reviewed. It begins with a general comment concerning the generality of the Costing Principles. The comments follow the relevant section of WestNet's Costing Principles.

Generality

WestNet's proposed Costing Principles are too vague to create any meaningful or enforceable rights for those seeking access to its network. This is because the rules that WestNet has proposed in relation to its Costing Principles can be interpreted (in any given

case) in a way that is favourable to WestNet's commercial interests and antagonistic to those seeking access to its network.

It is submitted that a more detailed approach to the Costing Principles is necessary. Section 46 provides that the Costing Principles are to be "a statement of the principles, rules and practices". It is submitted that it is significant that the Costing Principles encompass not only the *principles* to underpin the cost allocation process, but also the *rules* and *practices* that are to be applied and followed by the railway owner.

It is these rules and practices that have been ignored in WestNet's proposed Costing Principles. It is further submitted that the Costing Principles should set out detailed arrangements and practices to provide a definitive and auditable trail of cost allocation practices for the benefit of the regulator and end users and operators.

It is suggested that the Costing Principles should provide an auditable trail of cost allocation practices so as to enable an access seeker to unequivocally establish whether or not WestNet has complied with them in relation to information it provides and the prices it proposes.

Determination of capital costs

Introduction

The most significant pricing issue that arises under the Code concerns the mandating of the gross replacement value (GRV) for the purposes of calculating capital costs under the regime[6]. This section explores the ramifications from using the GRV approach.

The regime defines GRV as the lowest current cost to replace existing assets with the assets that have the capacity to provide the level of service that meets the actual and reasonably projected demand and are, if appropriate, modern equivalent assets.[7]

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[6] Clause 2 of Schedule 4 of the Code mandates the use of gross replacement value as the method for valuing the railway infrastructure.

[7] Schedule 4, Clause 2.

The key problem with the application of GRV is that it significantly distorts regulatory and, in turn, commercial, decision making. This is because the GRV method makes no allowance for consumption of the service potential embodied in railway infrastructure, both at a point in time and, potentially, over time.

This significantly complicates the regulatory environment for all interested parties. This is primarily because the regulatory regime cannot, without significant adaptation, properly align the asset owner's interests with a socially desirable set of objectives.

The key distinction between the conventional depreciated optimised replacement cost (DORC) and GRV approaches is that, properly applied, the DORC valuation represents that value at which the owner of the infrastructure is indifferent relative to the replacement of the existing infrastructure with new infrastructure (at the gross replacement cost for that infrastructure). In other words DORC discounts the replacement cost of the asset for accumulated depreciation.

For example, under a DORC valuation, partially life expired track is written down on account of the increased maintenance attention it requires and the requirement to replace the track being brought forward relative to new infrastructure. Neither of these considerations are relevant to the adoption of a GRV approach – it divorces the reality of actual track condition and age from that which can be used for regulatory purposes, and in doing so, induces significant regulatory distortions.

One example of this distortion is the disincentive created by the regulatory environment to infrastructure upgrades. Any regulatory environment that supports an asset value (based on GRV) that materially exceeds the economic value of the underlying asset results in significant asset wastage from any future upgrade.[8] In other words, the adoption of GRV artificially inflates asset wastage.

Since any operator or user of the railway infrastructure seeking to upgrade that infrastructure will have to compensate WestNet for the asset wastage associated with the upgrade, the adoption of the GRV approach will force users to pay higher charges than is

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[8] Asset wastage is the difference between the asset value following an investment and the sum of the investment and the asset value prior to the investment.

socially desirable. This inevitably creates a disincentive for users to invest in network upgrades.

There are many other distortions induced by the adoption of an asset value methodology that does not reflect underlying economic realities. These include:

- the discrepancy between maintenance costs that are actually and necessarily incurred by the railway owner, and those that would need to be incurred for new railway infrastructure – that is assets for which a gross replacement value method naturally applies; and
- the capacity of the track, including the proposed transit times and the allowable tolerances for speed restrictions being determined on the basis of those that would be expected in relation to new track (where there is little reason for there to be speed restrictions) and the track that actually exists.

What infrastructure is included

The Costing Principles indicate that formation assets form part of the railway infrastructure even though they do not fall within the definition of that term under the Railways (Access) Act 1998. All of the elements of railway infrastructure described in the legislation involve track super-structure (that is above the land). However, formation assets are part of the track sub-structure forming part of the earthworks. Moreover, clause 2 of Schedule 4 explicitly excludes "land" from railway infrastructure for the purposes of calculating capital costs. Accordingly, it is suggested that the reference to "formation" should be excluded from the Costing Principles.

It also appears that WestNet may be including asset values relating to infrastructure on the Kwinana to Kalgoorlie line that has not yet been completed. This is not appropriate.

In order to comply with the Costing Principles, it is necessary to separately consider the assets reasonably required to meet the projected demand of each customer in isolation as the ceiling price must be calculated on the basis of the access that is provided to the operator in

isolation as well (as to all of the entities that are provided access or part of a route).[9] The Costing Principles do not currently provide for a process to identify these assets.

It is suggested that:

- **formations be excluded from the asset base;**
- **only railway infrastructure required for an individual user in isolation be considered for that user; and**
- **only railway infrastructure that is necessary based on projected demand for all of the users on a route section be considered in the asset base for that route section.**

Modern Equivalent Assets

The problems that arise from the GRV approach are magnified by WestNet's proposed Costing Principles which provide that asset values may be determined by reference to a more expensive asset than actually exists. For example, the modern equivalent asset of railway infrastructure comprised of 40kg rail and timber sleepers would be valued on the basis of heavier gauge rail and concrete sleepers. This creates huge distortions in asset valuation:

- an undepreciated value being ascribed to a depreciated asset;
- a higher value is ascribed to the track than is reflected in the components forming part of the existing track infrastructure; and
- no account is taken of the obsolescence of the asset.[10]

It is therefore submitted that the regulator should not use its discretion to value railway infrastructure according to its modern equivalent asset unless it results in a lower GRV than would otherwise be the case.

Unit Rates

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9 Schedule 4, Clause 8.

10 Obsolescence in the context of GRV is considered below in the section on optimisation.

The Costing Principles provide no indication of the proposed unit rates to underpin the assessment of asset values. Moreover, the Costing Principles do not provide any indication of the method by which the unit rates will be assessed, such as:

- the appropriate basis for unitisation; or
- the size of the replacement exercise - if the entirety of the WestNet system were to be replaced, lower unit rates would apply than would be the case for an isolated track section due to the availability of scale economies for the former.[11]

As the Costing Principles are to provide the rules and practices for the determination of floor and ceiling prices, it is suggested that it is appropriate that they also set out the unit rates for asset values. In practice, this is no different to the regulator establishing the rate of return that is to apply to the network.

Accordingly, it is submitted that WestNet should propose, and the regulator independently assess and endorse or otherwise impose, unit rates for all assets comprising railway infrastructure. It is further submitted that this process should involve operators and end users through consultation processes.

The absence of transparency in relation to the GRV assessment is even more important for WestNet's communication assets – it would appear that WestNet is reserving for itself the right to value its existing assets on the basis of a completely different technology. As mentioned above, the new technology should only be applied as a basis for the GRV assessment if it results in a lower GRV than would be the case if it were applied to the existing assets.

It is suggested that unit rates for railway infrastructure be explicitly endorsed or determined by the regulator under the regime following an appropriate investigation and consultation process.

Design, construction and project management fees

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[11] Clause 4 of Schedule 4 provides that costs are to be considered in the context of the adoption of efficient practices in relation to the provision of railway infrastructure.

WestNet proposes a 34% surcharge for project management related fees. WestNet asserts that the following design, construction and project management fees are based on market based fees as a proportion of project costs:

- contractor's overheads of 12.5%;
- engineering and design of 16.5%; and
- a profit and risk margin for the contractor of 5%.

WestNet's Costing Principles do not provide any objective evidence to justify its claim.

By way of comparison, the Queensland Competition Authority's Draft Decision on Queensland Rail's draft undertaking reveals a study of replacement costs undertaken by independent engineering consultants, GHD Management. This study[12] provided the following estimates of these costs:[13]

- contractor's overhead and profit of $25,000 per kilometre, which constituted approximately 5% of the total cost of track construction;
- engineering, procurement and construction management, an activity which includes design, tender documentation, calling tenders, tender assessment and recommendations, contract award and contract documentation, contract administration including progress payments, quality inspections during manufacture, QA monitoring, final testing for tolerance and warranty period inspections and reporting, was assessed at $2500 per kilometre or 0.5% of the total cost of track construction; and
- contractor's costs and supply markups, where assumed supply of material is by the contractor, includes a markup to account for purchasing costs, supply management,

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12 GHD (2000) Valuation of Queensland Rail's Below Rail Assets for the Coal Network. The report is published as working paper No. 5, contained in Volume 4 of the QCA's report.

13 It is understood that the unit rates that were adopted by the QCA were similar to those developed independently by Booz Allen on behalf of IPART. However, the Booz Allen report has not yet been publicly released by IPART.

insurances, financial costs and various risks. These costs were estimated as a markup to purchase costs of 0.75% of rail costs, 2% of sleeper costs and 3.5% of ballast costs, a total cost of approximately $8000 per kilometre or less than 2% of total track construction costs.

The breakdown is contained in attachment 1. Without knowing precisely what project management costs relate to, it is impossible to directly compare these results. However, there would appear to be no basis for such the 34% surcharge proposed in the Costing Principles.[14]

In the absence of more rigorous costings provided by WestNet, it is submitted that similar rates to those adopted by the QCA should be applied.

Financing charge during railway infrastructure construction

It is recognised that regulatory processes allow financing costs during the construction phase as part of the gross asset value (which is normally subject to depreciation).

The Costing Principles provide that financing charges should be based on a real pre-tax weighted average cost of capital of 11% per annum to the construction cash flows until the completion of construction. This is materially higher than the weighted average cost of capital contained in the Code of 8.2%, a figure calculated during times of materially higher tax rates and interest rate charges than those that currently prevail.[15]

The Costing Principles provide that the assumed rate of construction on an origin to destination basis should be half a kilometre a day. This is approximately one third of the current rate of construction of the Australasia rail track of 1.5 kilometres per day.[16]

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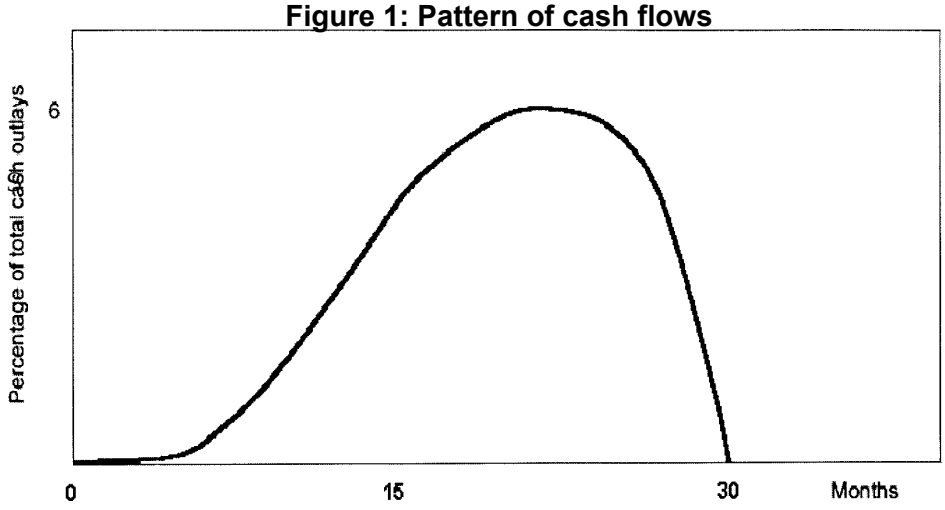
[14] Clause 4 of Schedule 4 explicitly indicates that costs are to be assessed assuming the adoption of efficient practices in railway provisioning suggesting that the assessment of these costs should take account of the benefits of scale economies available if the entire network were replaced.

[15] See the discussion of the appropriate cost of capital below.

[16] It is believed that the Australasia rail track is constructed over similar terrain to that which forms much of the WestNet network. Moreover, clause 4 of Schedule 4 explicitly indicates

Moreover, the financing charge can only be considered in the context of particular expenditure profile for a rail track. This expenditure involves a very significant lag between the commencement of works and the major expenditures which occur towards the end of the process. Consequently, an average construction rate per day must be comprehended in an environment where the bulk of capital expenditure is spent towards the end of the construction horizon as shown in figure 1.

Figure 1: Pattern of cash flows



Source: Queensland Competition Authority, Draft Decision on QR's Draft Undertaking, Volume 3 – Reference Tariffs, December 2000

It is suggested that there is merit in the adoption of a simple rule for the calculation of financing costs as it allows these costs to be calculated by simply grossing up the assessed GRV of the railway infrastructure. However, before such an assessment is made, it is

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that costs are to be assessed assuming the adoption of efficient practices in railway provisioning, suggesting that the assessment of construction times should take account of the benefits of scale economies in construction times.

important that the expenditure profile, construction rate, and weighted average cost of capital are resolved through appropriate processes, including consultation and independent assessment by the regulator.

It is submitted that the approach of a kilometre rate per day should be used for assessing financing costs. However, in assessing these costs:

- **the construction rate must be consistent with current benchmarks representing industry best practice;**
- **a WACC consistent with that applied elsewhere in the regime should be applied; and**
- **the WACC should be applied to a defined expenditure profile.**

Optimisation[17]

It could possibly be argued that the GRV concept precludes any optimisation in the asset valuation process. However, it is submitted that this is not the case. This is because the gross replacement value is expressed to be the *lowest current cost* to replace existing assets. Therefore, a GRV estimate must consider whether the existing assets could be replaced with different assets that could provide the service more efficiently than the current assets. To address this question properly requires an optimisation process.

Optimisation needs to take into account multi dimensional nature of output from the rail industry, the service quality differentiations required by customers and the tradeoffs between above and below rail operations to achieve system-wide efficiency.

Whilst the revenue earned by an integrated railway is primarily related to the amount of freight shipped, the below rail configurations substantially influence above rail costs. In the context of heavy haul operations, such as those that generate the bulk of WestNet's cashflows:

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[17] The following discussion is drawn heavily from the Queensland Competition Authority (2000), draft decision on QR's draft undertaking, Vol 3 – Reference Tariffs, pp.174 – 178.

- above rail operations, which are largely variable costs, accounting for approximately 60% of the total cost of operations; and
- below rail costs, including infrastructure and maintenance, account for the remaining 40% of total costs. The maintenance component is largely variable whereas the capital component is fixed in the short run.

There are broadly three inter-related objectives that drive total system costs for transportation services by rail:

- maximising payloads;
- minimising tare; and
- minimising cycle times.

In turn, this generates the parameters around which an optimisation process can be effected:

- track standard, which comprises:
  - track alignment;
  - track quality; and
  - track specification; and
- system capacity.

Track alignment – the alignment of the route is a composite problem minimising travel distance, grades, curves and construction cost.

The trade-offs likely to be encountered in the choice of route are:

- lower operating costs, track maintenance, signalling and overhead line costs associated with shorter route lengths;
- higher earthworks costs associated with shorter routes. Typically the shortest route will not pass through the most benign topography;
- lower fuel consumption and locomotive costs associated with flat grades which are in turn associated with longer routes; and

- high train speeds, lower maintenance costs and higher earthwork costs associated with flat curves which are in turn associated with longer routes.

Track quality – issues may involve an asset which is obsolete being replaced with a modern equivalent asset for valuation purposes. For example, to the extent that elements of a communications network could be replaced with more modern technologies suggests that it may be appropriate to value the asset on the basis of the improved technology so long as appropriate adjustment is made for the capacity differential between the two assets.[18]

Track specifications – there are two critical technical aspects of track standard which are relevant to the below-rail optimisation process. These are axle load, or rail strength and the gauge of the track.

Axle load is possibly the most important parameter since the use of the highest possible axle load brings about benefits in relation to:

- wagon design and load carrying capacity;
- payload to tare ratios; and
- train load per unit length.

The gauge of the track refers to the distance between the inner faces of the rail heads. Railways throughout the world operate on a variety of gauges ranging from 1 metre to 1.6 metres wide. The importance of the gauge size lies in its relationship to the overall size of the wagon and locomotive. Track gauge effectively limits the height of the wagon, because the centre of gravity is required to fall within limits dictated by lateral stability. This has implications for both the payload to tare ratio and the speed at which the train can travel.

A wider, taller and longer wagon will proportionately produce a wagon with higher payload to tare ratios. Thus, the trend in wagon design has been to increase the carrying capacity to as much as possible, consistent with the gauge size. However, in Western Australia where

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[18] Due to the distortions created by the GRV methodology, it is highly unlikely that it would be appropriate to optimise on the basis of track quality unless doing so reduces the asset base.

narrow gauge (1067mm) operates, the width and height of vehicles has been limited by gauge.

In addition, a narrower gauge will, all else equal, limit the speed at which a train can travel in a safe and stable manner. Higher speeds are desirable from a cycle time perspective (to reduce the number of consists required for a given task).[19]

System capacity – in considering the design of a railway system, the operating parameters of the equipment on the infrastructure will result in the requirement to operate a certain number of trains per day for a particular task.

For a single track system with passing loops, a requirement is that the loaded and empty trains must be able to pass one another. The spacing of the passing loops is the single largest determinant of the capacity of the system. To the extent that the existing railway infrastructure provides capacity greater than is necessary to meet projected demand, such assets should be excised from the asset base for pricing purposes.

In addition, the length of the passing loop is critical. With heavy-haul operations, large economies are accessible through increasing train length to the maximum size commensurate with reliable and safe operations and having regard to terminal configuration and braking capabilities. Accordingly, an optimisation process may result in a finding that the track configuration is inefficient because the task would be able to be performed with less track if passing loops were longer.

It is suggested that the regulator undertake an optimisation exercise taking into account all of the parameters that can affect the efficiency of above rail operations, including:

- **alignment;**
- **track quality;**
- **track specification, including maximum axle load and gauge; and**
- **system capacity.**

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[19] Although higher speed may involve higher operating costs.

Economic Life

Normally, the assessment of the effective life of railway infrastructure involves estimating the shorter of the technical and economic life of the asset. The economic life of the asset is driven by the expected duration of the trade that the rail line enables (that is, the life of the mine or refinery that is served by the rail line).

Accordingly, the first step in the process would be to assess the economic life of the asset in order to assess whether it is likely to be the binding constraint on the effective life of the asset.

In relation to the technical life of the asset, rail track is a composite asset involving several different components that in turn exhibit different aging characteristics. The assessment of the effective life of the composite asset must comprehend these characteristics.

One method for assessing the effective (technical) life would be to assess the weighted average life of the asset, based on the life of the various components weighted by an appropriate factor, such as value. For example, rail on curves will have a shorter life than concrete sleepers – the weighted average of these components could be used. If the economic life is assessed to be less than the technical life, then the former should prevail.

In addition, it is important to ensure that the assessment of economic life also takes into account the treatment of maintenance expenditure. To the extent that asset replacement is treated as maintenance expenditure (as suggested in section 3.4 of the Costing Principles), it is important to ensure that the regulatory environment does not allow the recovery of the same expenditure twice (once through depreciation and again through maintenance expense). This issue is considered in the context of the annuity below.

Allowable return

It is noted that the Code provides that the default real pre-tax rate of return will be 8.2%. However, since this cost of capital calculation was performed there have been some important developments, including that:

- tax rates have reduced; and
- real interest rates have also reduced.

The effect of both of these parameters is to reduce the relevant pre-tax nominal weighted average cost of capital by approximately 60 basis points. There would also appear to be no

justification for the lower rate of return applying to passenger traffic and this discrepancy should not result in higher access charges for freight customers. Moreover, NECG has serious reservations about the equity beta that was applied in the analysis. This will be the subject of a separate paper submitted to the regulator.

It is suggested that the regulator review the rate of return that is applied under the regime to take account of the effects of reduced real interest rates and reduced tax rates. It is also suggested that the regulator review each parameter that forms part of the assessment of the cost of capital.

The annuity calculation

The provision of the Code which addresses the assessment of the economic life of the railway infrastructure can be interpreted in two ways:[20]

- as an "evergreen" GRV; or
- as an annuity over a defined period with a deemed termination value.

One factor that complicates the assessment of these alternatives is that the regime does not explicitly provide for regulatory resets, as is conventionally the case. Accordingly, for the purposes of the discussion of the evergreen GRV, it is assumed that the regulator periodically reviews the ceiling and floor prices for the railway infrastructure and for each of the routes comprising the railway infrastructure.

In such a case, it would be odd if WestNet sought a return on its assets if the future recalculation of ceiling prices was on the basis of the GRV of the then assets comprising the system.[21]

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[20] Clause 2 of Schedule 4.

[21] Clause 8 of Schedule 4 of the Code.

Accordingly, considerations of depreciation and economic life should be interpreted by reference to the other parameters forming part of the regime, in particular, the possible replenishment of GRV whenever ceiling prices are reviewed. In other words, the annuity should be determined by the salvage value effectively applying under the regulatory arrangements (which would be a GRV valuation).

If the opening value of assets is to be the GRV in the next regulatory period, then to allow any depreciation (other than through recognition of declining replacement costs over time) would produce an outcome where customers pay twice for the service that is provided.

Alternatively, if the annuity is to be performed at the start of the regime, and the annual payment from the annuity for pricing purposes is to be based on a termination value rather than the GRV of the assets at the time, then the appropriate basis for assessing that value is not the salvage value but the DORC of the assets at the time.

The lease arrangements are irrelevant to the economic value of the asset at the end of the lease. Irrespective of what value has been agreed by WestNet and the Government as the transfer price at the end of the lease, of far greater significance would be any obligation upon WestNet under the lease documentation to maintain the network in serviceable condition during the term of the lease.

In any event, so long as maintenance of the network is allowed in the underlying cash flows, there is no justification for writing the asset down below its economic valuation at the end of the term, which is provided by the DORC valuation.

In addition, the approach proposed in the Costing Principles by WestNet provides that the cash flows in each year are received at the end of the year. Clearly this will not generally be the case. Accordingly, unless access charges are to be paid annually in arrears, it is recommended that an adjustment be made to the annuity because of the timing difference between the actual and the assumed receipt of cash under the annuity calculation.

It is suggested that depreciation under the annuity calculation of capital costs be limited to the expected reduction in the GRV at the next review period.

It is suggested that, to the extent that there is a timing difference between the expected receipt of Westnet's cashflows and the assumptions implicit in the model calculating a capital cost annuity, the effects of that timing difference are explicitly incorporated into the assessment of total costs for pricing purposes.

Contributed assets

There is no reference to contributed assets in WestNet's Costing Principles. This is in direct contrast to other regulatory processes in Western Australia such as the arrangements for network revenue determination in the electricity industry. Here, express provision is made for the recognition of assets contributed by users. For example, the document published by Western Power, entitled *Policy and Guidelines for treatment of past capital contributions by contestable customers,* dated November 1999, contains several principles to guide the assessment of past capital contributions.

Translating these principles to WestNet suggests:

- specific capital contributions should be recognised for pricing purposes;
- reductions in prices should be calculated in a manner consistent to that applied to calculate prices for the use of the network; and
- WestNet should provide reasonable assistance to the identification of specific capital contributions, although beyond some period, customers should accept responsibility for the identification of capital contributions.

Accordingly, it is suggested that where an end user or operator can identify a specific asset it has contributed then the GRV of that asset should be excised from the asset base for the purposes of calculating ceiling prices and access charges for that customer.

It is suggested that contributed assets be recognised for specific contributions that are identified by users and that the recognition be calculated on the same basis as applies to the pricing of the use of the network.

Determination of operating costs

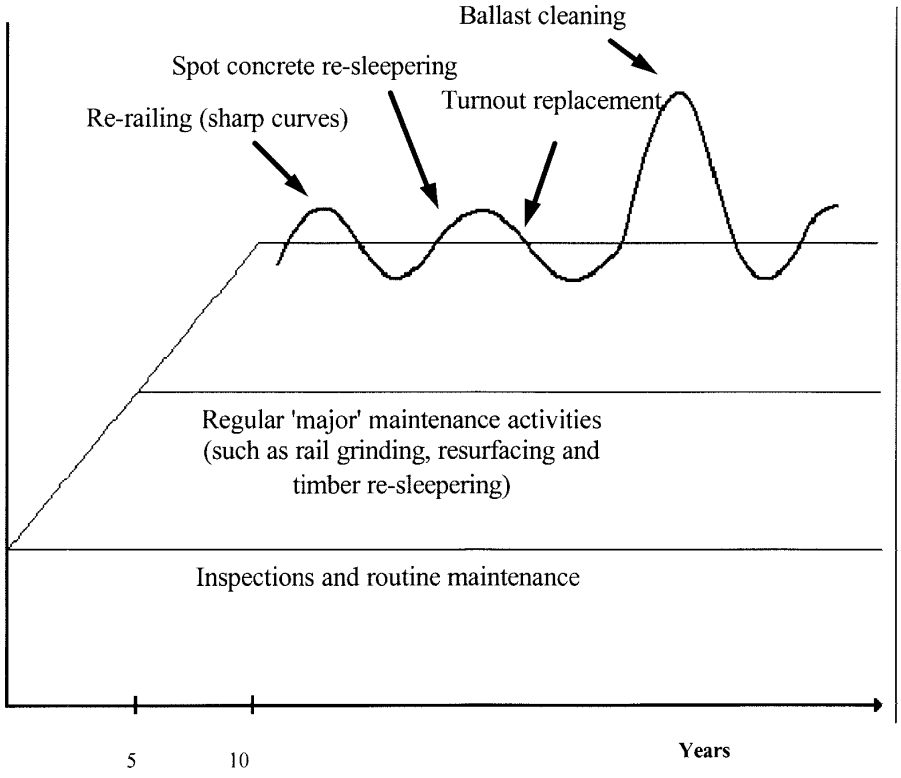
Introduction

One of the most significant distortions created by the adoption of the GRV approach is that there is a discrepancy between maintenance costs actually and necessarily incurred by WestNet and the level of maintenance cost that would be consistent with the adoption of the GRV methodology. This is because the maintenance requirements for rail infrastructure vary with time and the condition of the infrastructure.

Typically for new infrastructure (such as that produced by applying the GRV method) a regime of inspections and routine maintenance is required. Over time, more intensive

maintenance of the infrastructure is required, including resurfacing and rail grinding. Eventually, replacement of the infrastructure becomes necessary, including replacement of rail on curves, rail replacement on tangent track, re-sleepering and ballast replacement and cleaning. The timing of when this work needs to be performed depends upon usage patterns, infrastructure condition and the quality of the original construction of the track. This is illustrated by figure 2 below.

Figure 2: Time profile of maintenance activity



Adapted from: Queensland Competition Authority, Draft Decision on QR's Draft Undertaking, Volume 3, Chapter 13 – Asset Valuation and Depreciation, December 2000

The Costing Principles appear to recognise that the adoption of the GRV method dictates that maintenance costs are to be consistent with new track, rather than those that WestNet actually incurs. Depending upon whether the annuity calculation for capital costs is based on an "evergreen" GRV assumption or whether it is assumed that there is a "one-off" GRV valuation adopted at the commencement of the regulatory regime, the assessment of maintenance costs needs to reflect the underlying assumptions.

WestNet asserts that the assets have neither salvage value nor any cost of disposal. However, the terminal value under the annuity should be based on the then optimised deprival value of the assets, having regard to the assumed original asset condition implicit in the GRV and the maintenance regime implicit in the cash flows for modelling floor and ceiling prices.

It is understood that much of the maintenance work on the relevant infrastructure is contracted out. At one level, this facilitates the assessment of efficient cost as the contracting out process would suggest that costs are consistent with efficient cost, so long as:

- for contracts let several years ago, there is continuous improvement built into maintenance rates to take account of the fact that real maintenance costs are reducing over time and hence historical rates may not reflect contemporary efficient rates;[22]
- the work program was appropriate for the condition of the infrastructure;
- the packages of work that were the subject of the tender were of sufficient scale to be efficient – both in terms of the period of the contract and size of the parcel; and
- the integrity of the contracting out processes can be established.

Moreover, WestNet provides no justification for the asserted efficiency of the in-house provision of services, such as track inspections and signalling and communication maintenance. It is necessary that this be independently verified by the regulator under the Costing Principles. Costs should be subject to efficiency benchmarks.

It is suggested that the Costing Principles only allow the recovery of efficient maintenance costs that would be consistent with new railway infrastructure.

Definition of operating costs

The difficulty with the definition of operating costs is that there is no transparency to the assessment. Moreover, there is no explanation of how those costs are divided amongst users of a route section. Considerably more detail is required of the discussion of maintenance

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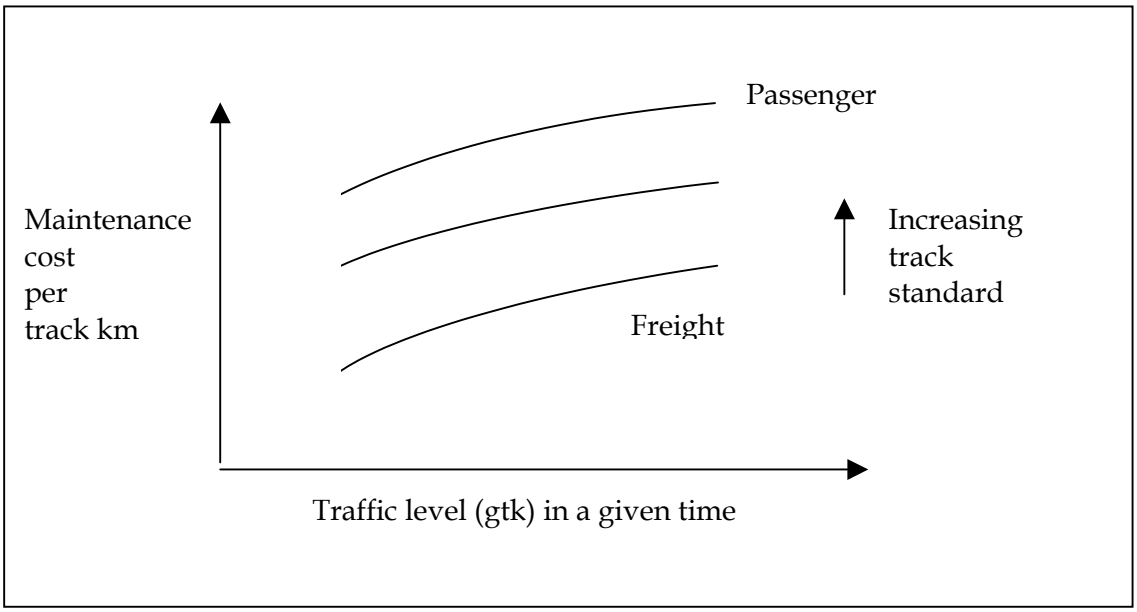
[22] Contractor rates typically fall be approximately 1% per annum in real terms.

costs in order for users to make an informed assessment of the approach that is applied. For example, WestNet has asserted that it has calculated the cost of maintenance by assessing the characteristics that drive the operating costs by an individual route section that forms part of the origin and destination of the access proponent.

However, there is no description of the process by which those costs are estimated or ascribed to particular route sections. The Costing Principles do not contain a requirement for maintenance costs to be ascribed to individual route sections, nor do they provide a basis upon which this may be done.

The Costing Principles require that maintenance costs be assessed for individual route sections but also that they be estimated for individual traffics. Where traffic along a route is relatively homogenous (that is, freight with a given axle load and speed) this does not present particular difficulties. Whilst maintenance costs increase at a decreasing rate with increase in usage in a given period (that is, they do not increase with usage on a linear basis - depicted in figure 3 below), they may be estimated reasonably accurately.

Figure 3: Relationship of maintenance cost and track usage



However, passenger and freight traffic are not complementary. Consequently, passenger traffic imposes higher maintenance costs on a route section carrying freight traffic for several reasons:[23]

- passenger traffic requires an intrinsically higher track standard (refer figure 3);
- maintenance is intrinsically more expensive to perform on track carrying passenger traffic as the scheduling inflexibility impacts upon the duration of maintenance windows and the need for corrective maintenance to be performed more quickly than would otherwise be the case.

Accordingly, it is suggested that the Costing Principles need to set out this process and provide rules by which these maintenance costs can be estimated. The method for the study of maintenance costs could involve the following steps:

Step 1 - Establish the level of maintenance

The first step involves resolution of the level of maintenance that is attributable to line segments. The adoption of the hypothetical GRV methodology in turn is likely to require a consistent approach to be adopted for the level of maintenance. This would require that a model be developed of the appropriate timing of maintenance work for new track given the traffic levels that are forecast. This maintenance model could then be contrasted with the actual levels of maintenance that are forecast for the system.

Step 2 – Estimate efficient costs

Once the level of maintenance is established, the efficient cost of undertaking that maintenance work can be estimated. In practice, this step may involve an assessment of contracting out arrangements in the manner outlined above and an application of the relevant rates for works deemed appropriate under the first step.

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[23] In addition, if the floor price is to include an allowance for capacity consumption (as it is submitted that it should at least for heavily trafficked lines), it must be remembered that passenger traffic typically consumes greater capacity than freight traffic because of its relatively inflexible timetable and need for an uninterrupted path.

Step 3 – Attribute line segment costs to traffics

Once the efficient maintenance costs are estimated, the extent to which those maintenance costs that are derived for line segments can be attributed to the particular traffics. This attribution will enable ceiling and floor prices to be assessed. This requires a "with and without" test to be applied to total maintenance costs for each of the traffic types is isolation and with the other traffic.

It is suggested that the maintenance plan underpinning the assessment of operating costs should be attached to the Costing Principles (based on the maintenance works that would be appropriate for new track). The maintenance plan could also set out the proposed unit rates to apply to each activity mentioned in the plan or the total expenditure for a route section for a period.

Whilst it is acknowledged that this would be a more invasive regulatory approach than would conventionally apply to a regulated business, the position that the regulator finds itself in under the Code is also highly unusual. This is because it is not regulating on the basis of actual expenditure, but rather on a model that would be appropriate for new track.

However, if for any reason, actual maintenance costs are deemed appropriate to consider for regulatory purposes, it should be incumbent on WestNet to produce a specific maintenance plan that indicates work levels necessary to achieve a pre-defined standard in order to build up an explicit position on maintenance costs per kilometre, rather than simply rely on WestNet's judgement.

Moreover, WestNet should be required to aggregate costs on a route section basis and account for those costs accordingly. This should be accomplished through a requirement that work performed on WestNet's network be accompanied by a work order that identifies the work that was performed and the route section that it was performed on. This is particularly important given the capacity for maintenance costs for AWR's lines (for example, sidings, terminals) to be inadvertently allocated to WestNet.

In terms of the recoverability of costs for derailments from users, it is important that a consistent basis is applied for ARG and third party operators. Moreover, it would be relevant to consider the extent to which track conditions contributed to incidents - to the extent that it contributed greater than would be the case for new track, the additional costs should not be reflected in access charges. In other words, since users are paying for new track (via the GRV

valuation) they should be provided a level of service and track standard that is consistent with new track.

It is suggested that route section maintenance costs be assessed on the basis of identifiable maintenance plans and work orders that identify route sections that receive maintenance activity. The assessment of operating costs should be based on those costs that would necessarily be incurred by an efficient provider for new railway infrastructure.

Allocation of operating costs

It is suggested that there is no reason for infrastructure management costs (the costs associated with managing infrastructure maintenance contracts and internal provision of maintenance services) to be treated as anything other than a maintenance cost. This logic would suggest that the allocation of these costs should be a function of the maintenance effort required for a route section (which in turn is a function of the maintenance expenditure for that line). It should also be noted that the reduced maintenance costs associated with the GRV valuation should also be reflected in infrastructure management costs.

Instead, WestNet has applied an approach in which such costs are attributed to overheads in the first instance. This approach tends to minimise the transparency of the cost allocation process.

Moreover, it is suggested that management time devoted to performing various activities could be more accurately estimated by undertaking a periodic survey of activity (where time spent on individual activities is recorded for, say, one month). This would provide more accurate information for the allocation of management costs.

The adoption of Gross Tonne Kilometres as a means of allocating costs maximises the allocation of costs to heavy haul traffic; which does not reflect underlying cost causation. It is important that specific cost drivers are applied for each major cost item and for those costs to be allocated accordingly. This is especially the case where a route section carries freight and passenger traffic. The cost drivers for the allocation of costs is considered in response to section 4.2 of the Costing Principles below.

It is suggested that the allocation of operating costs be achieved through a transparent series of cost reflective allocators. Only costs accepted by the regulator as being prudently incurred should be subject to the cost allocation process. Management surveys could be performed to gather information to inform the cost allocation process.

Cyclical maintenance costs

It is necessary, if cyclical maintenance costs are adopted, for there to be a sinking fund to ensure that in periods where actual spend is less than allowed revenue earnings for each route section (due to forecast higher spends in the cycle in later years) that amount be carried forward to future years. Otherwise, double recovery of cost could be facilitated.

This could, for example, occur where the cyclical maintenance period straddles two reviews of ceiling prices – with the prices for the first period assuming greater expenditure in the second period, but where no adjustment is made in that second period for the revenue that has already been earned in anticipation of the maintenance to be performed in the future.

Moreover, the comments about the application of GRV valuations are relevant here. For example, the proposals with respect to the replacement of worn rail in tight curves could be interpreted as suggesting that WestNet's intention is to recover all maintenance costs, regardless of track quality, despite the use of the GRV asset valuation approach for each regulatory review period.

Again, if an evergreen GRV is used, then there would be no case for rail wear (such wear never occurring sufficiently to justify replacement within the period). Alternatively, if a "once off" GRV is to be adopted, then the rail wear and other maintenance would be determined on the basis of new track from the commencement of the regime.

It is suggested that any allowance of cyclical maintenance costs be accompanied by a sinking fund arrangement and certification by the regulator that amounts allowed for but not spent are carried forward to future years.

Overhead cost

Definition of overhead cost

Corporate overheads normally fall into two categories:

- those of a general corporate management nature where there are considerable difficulties in identifying individual costs that are either specifically above or below rail; and

- those of a more direct nature (such as infrastructure maintenance discussed above), which are able to be allocated.

From the list of costs set out in section 4.1, it is suggested that (i) and (ii) fall into the first category, (viii), (ix) and (x) have elements of both (for example, lodgement fees with ASIC are not assumable to causative allocation, but legal fees for a specific matter can be) and the remainder fall into the second category.

The Costing Principles should set out detailed allocation arrangements for each of the cost categories of overhead cost and detail the analysis WestNet has undertaken of these cost relationships.

For example, in the case of the first category, working expenses may be used as an appropriate allocator, whereas specific allocators could be developed for other overheads of a direct nature. For example, in the case of payroll expenditure, staff numbers are likely to be an appropriate driver. IT help desk costs are likely to be driven by computer numbers and so on.

In the absence of specific allocators being developed for ARG costs, there is a risk that a disproportionate share of these costs will be assigned to WestNet, increasing the cost of service provision for WestNet's customers and providing AWR with an inappropriate competitive advantage in the above rail market.

Accordingly, it is suggested that for each expenditure category, WestNet should identify a causal basis for the allocation of those costs to WestNet and then allocate those costs to specific route sections on that basis (rather than on a gross tonne kilometre basis).

Moreover, it is expected that there would be additional costs undertaken by associates of WestNet that need to be considered in the context of the cost allocation arrangements. For example, there is no mention of work trains in the Costing Principles, even thought these are likely to be provided by an above rail provider. Similarly, there is no mention of the allocation of telecommunications costs to ARG and AWR, even though their operators are likely to use such assets.

Given ARG's vertically integrated structure, it is particularly important that the costs associated with the provision of services between the businesses are transparent to at least the regulator.

It is suggested that a specific basis be adopted for the allocation of costs between ARG and WestNet and in turn to individual route sections.

Allocation of overhead cost

The Code requires a fair and reasonable apportionment of non-line segment specific costs to be estimated and applied across WestNet Rail's and WAGR's network. It is therefore appropriate that an allocative approach be adopted for the estimation of these costs (as opposed to the theoretical alternative of estimating the stand alone costs for these functions).

However, the Costing Principles do not explain how costs are allocated to WestNet or how costs are allocated to other functions in the first place – there is simply an amorphous consolidation of management costs.

WestNet's assertion is that management functions cannot be allocated to specific functions and that devising and that implementing an appropriately transparent and simple methodology is impractical. This is curious in light of the fact that, historically, WestNet's predecessor, Westrail, was highly regarded in the industry for the integrity of its cost allocation processes. It is also contradicted by the reality that QR has done exactly this for its regulated below rail network.

Moreover, WestNet's proposed allocation of costs on the basis of gross tonne kilometres will effectively assign the bulk of expenditure to the most densely trafficked lines. There is no sense in a stand alone cost ceiling for the provision of these services. This is important because a stand alone service for a particular route section would have a fraction of the management overhead that may be applied on a system-wide basis. If greater than the stand alone management input is attributed to a route section via WestNet's proposed allocation policies, then the result is that the Costing Principles will fail to identify an excessive price.

Accordingly, it is suggested that it still may be appropriate to explore the stand alone cost of the provision of these services on account of the need for the costs to be consistent with the "efficient cost" benchmark. The Code makes it clear that only efficiently incurred costs should be allowed in the assessment of ceiling and floor prices, including the practice of operating a particular route in combination with others routes for the achievement of efficiencies.[24]

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[24] Schedule 4, Clause 4.

The importance of this component of the Costing Principles is highlighted by its role in the ongoing regulatory environment. The infrastructure owners will be required to maintain their accounts in accordance with these principles. These Principles therefore provide the Regulator with the means of assessing the appropriate apportionment of cost for the purpose of the ongoing financial information that it is provided.

It should also be noted that the Principles will be a key means of providing confidence to the competitive integrity of the above rail market.

It is suggested that the assignment of overhead costs could involve a four step process:

Step 1 - Categorisation

The first step involves identifying costs that are unequivocally either above or below rail. For example, train control and associated scheduling costs are below rail. Other costs are obviously above rail, such as train running costs. However, there are some costs that are both – such as the provision of work trains for maintenance purposes. Accordingly it is necessary to categorise these costs to establish the extent to which costs must be apportioned between above and below rail functions.

Step 2 – Identification of allocation rules

The second step involves establishing allocation rules for those costs that involve an above and below rail element. An example of these costs may be corporate overhead costs. Allocation rules for these costs would be developed that provide a reasonable relationship to the underlying cost drivers (for example, costs associated with administering payroll based on staff numbers).

In some cases, it may be appropriate to consider internal trading arrangements for cost allocation purposes. For example, in the provision of work trains, a more transparent means of attributing cost may be to assess the cost of internally provided services against those prevailing in the market.

This step therefore results in the below rail costs being identified, which in turn enables those costs to be assigned to particular line segments or regions.

Step 3 – Assign to line segments

The third step would take the below rail costs and assign those costs to specific line segments. The process is likely to involve similar allocation rules that were used for the

previous step. It will also be necessary to develop allocation rules for those costs that are clearly below rail (for example, train control costs may be allocated on the basis of train kilometers).

Step 4 – Assign to traffics

In the final step, the costs that are allocated to line segments are attributed to various traffics that operate on those line segments. This will facilitate calculation of ceiling and floor prices for the traffics traversing the relevant line sections. In this regard, it should be noted that passenger traffic is likely to require far more intensive management effort than freight traffic. This contradicts WestNet's assertion contained in the Costing Principles.

In practice, it is therefore suggested that for the Costing Principles to perform their role, it may require that the rules for the apportionment of cost be detailed.

It is suggested that specific allocators and allocation rules be developed for WestNet's overhead costs and the assignment of any costs to WestNet from elsewhere in the ARG group.

Other matters

Ceiling variation

WestNet proposes an annual CPI adjustment to remove inflation risk. It is suggested that CPI does not provide an accurate reflection of the cost drivers for WestNet's business. Whilst CPI may form part of the escalation formula, it is suggested that other components could include steel prices (as is the case with Worsley's existing rail contracts) or construction indices produced by the Australian Bureau of Statistics.

It appears that WestNet is proposing a 3 yearly review of its floor and ceiling prices. However, it argues that this review should be based upon "unit costs at that time". This contrasts with the implications of adopting a GRV valuation and its impact on assessed costs for pricing purposes.

If an "evergreen" GRV is to be adopted, there will never be a case for any allowance to be made for depreciation of the network in determining ceiling prices. If a "once off" GRV is adopted, then the allowance for depreciation in determining ceiling charges would be consistent with the asset consumption for new track.

There is no adjustment for productivity gains. It is also unclear how variations from forecast demand are addressed in the regulatory regime. The situation is complicated by the absence of the overpayment rules that would clarify whether a price or a revenue cap was proposed by WestNet.[25]

It is suggested that ceiling variations and other aspects of the Costing Principles not be considered in isolation from the overpayment rules, so that they can be considered by the regulator in tandem.

Calculation of regulatory ceiling

Clause 8 of Schedule 4 sets out the test for ceiling prices. This test is based on the stand alone cost test. The suggested amendments to the Costing Principles set out above will facilitate the estimation of the ceiling price for a particular traffic (that is, for an operator) as well as the total costs attributable to the route.

Calculating the regulatory ceiling on the basis of the system as a whole is unsustainable and not supported by the underlying regime. The Code is based on the cost ceiling being calculated for an individual route section and individual traffic on that route section. This is because the Code seeks to ascertain the stand-alone costs of provision of a service for a user or group of users, as this cost should avoid the incentive to bypass the network.

Failure to consider ceiling costs on a route basis will result in those route sections where WestNet possesses market power being overpriced. In effect, those parts of the network that do not recover their ceiling will have that shortfall recovered from users of the network who are able to pay in excess of ceiling rates.

It is suggested that the calculation of the ceiling be performed on a route section and traffic basis.

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[25] A regulatory regime which assigns volume risk to customers is best known as a revenue cap, whereas one that assigns the volume risk to the infrastructure owner is a price cap. Under the former, prices are periodically revisited and adjustments made to reflect any over or under recovery in the preceding period. No such intra-regulatory period adjustment is made in the case of price caps. Accordingly, the adoption of price caps requires detailed attention be given to demand forecasts provided by users.

Calculation of Regulatory Floor

WestNet propose to adopt one Regulatory Floor. However, the concept of a Regulatory Floor, which is based on incremental costs, has no meaning on a system wide basis. Floor costs should be calculated for every individual traffic which could fall below covering its incremental cost. This is especially the case for passenger services due to the differing infrastructure requirements this traffic presents.

Again, determination of the Regulatory Floor needs to be considered by applying specific principles, rather than listing a number of factors and leaving resolution of these matters to WestNet's discretion.

One particular matter requiring consideration relates to attributing capacity costs to floor prices. This is a particular concern with passenger services that often have priority over freight services. It is suggested that these capacity charges be based on the costs to operators whose cycle times increase on account of accommodating the passenger service. Alternatively, the regulator could estimate the additional infrastructure required to accommodate passenger traffic whilst maintaining freight cycle times that would apply absent passenger traffic. In practice, capacity related costs are likely to be higher than the remaining costs comprising the floor.

It is suggested that the calculation of the Regulatory Floor be performed on a route section and traffic nature basis (that is distinguishing freight from passenger traffic).

5 Additional matters for the Costing Principles

The Costing Principles contain no accountability mechanisms to confirm WestNet's adherence to them. The issue therefore arises as to whether or not the practices and rules governing WestNet's cost allocation and revenue attribution should be the subject of a period review and audit.

In relation to the audit, the following issues are relevant:

- the scope of the audit;
- the timing of accounts prepared in accordance with the Costing Principles;
- director's certification that accounts have been prepared in accordance with the Costing Principles;

- the appointment of the auditor;
- WestNet's obligations in relation to the audit;
- the process in the event that the auditor issues a qualified report; and
- the frequency of audits.

The scope of the audit

It is suggested that the scope of the audit needs to extend beyond that traditionally undertaken as part of audit processes because of the nature of the regime. For example, it is necessary that the auditor investigates and forms a view on the appropriateness of the allocation processes undertaken by WestNet, and the appropriateness of the allocators themselves. The audit should also attest that appropriateness of the access charges for each route section and certify that ceiling price limits have not been breached for each route section and for each traffic traversing each route section.

Aspects of the process related phase of the audit process could assess the veracity of surveys and the completion of work orders. It should also be the auditor's role to suggest improvements in the Costing Principles so as to enable the regulator and WestNet to continuously improve the Costing Principles over time.

Accordingly, it is suggested that the scope of the audit should include:

- ensuring that the process is contained and the Costing Principles have been followed;
- attesting that WestNet's allocation of costs and assets is consistent with the Costing Principles;
- attesting to the appropriateness of access charges relative to ceiling prices for each route section; and
- attesting to the reasonableness of the values contained in the statements.

Timing

It is suggested that financial statements and supporting documentation, including a breakdown of revenue attributed to AWR, should be prepared for an auditor within six months of the close of the financial year to provide WestNet with the opportunity of

ensuring that its existing statutory reporting obligations are completed prior to finalising its accounts in accordance with the Costing Principles.

Certification by directors

The considerable significance of the Costing Principles in the regulatory framework suggest that it would be appropriate that at least one director and the chief executive certify that the Costing Principles have been complied with. This is similar to the arrangements applying in other jurisdictions in Australia for regulatory account keeping.

The appointment of the auditor

It is suggested that the integrity of the audit process would be irretrievably damaged if WestNet were to appoint the auditor and, accordingly, this function must be left with the regulator.

Assistance to be provided

The Costing Principles should oblige WestNet to provide any assistance that the auditor requires, particularly relating to the provision of information in a timely manner (that is, in accordance with any timeframe set by the auditor). It is also important that the auditor have complete access to WestNet's financial and information systems.

Implications of a qualified audit report

Whether or not WestNet agrees with the qualified audit report, it should present, as notes to financial accounts, the implications of the qualified report and how it affects both the financial accounts and any ceiling and floor prices it has set in the previous year.

Frequency of audit

It is suggested that the audit be undertaken on an annual basis, unless there are particular issues that arise during the course of the year that require attention. For example, it may be appropriate that the auditor review a survey undertaken of management time during the course of the year.

It is recommended that the Costing Principles include an audit process that:

- **requires the scope of the audit to include and assessment of whether:**
  - **the processes contained in the Costing Principles have been followed;**

- **the allocation of costs and attribution of revenue is in accordance with the Costing Principles;**
- **ceiling prices have not been exceeded for each route section and each traffic traversing that route section;**
- **attesting to the reasonableness of the values contained in those statements;**

- **contains an obligation on WestNet to present financial statements prepared in accordance with the Costing Principles within 6 months of the end of the financial year;**
- **provides that these accounts would be certified by at least one director and the chief executive;**
- **provides for the regulator to select the auditor to audit WestNet's compliance with the Costing Principles;**
- **confirms that the auditor would be provided full access to WestNet's information systems, with the degree of access forming part of the auditor's report to the regulator;**
- **obliges WestNet to provide any information the auditor requires within any reasonable timeframe nominated by the auditor;**
- **acknowledges that WestNet must comply with the regulator's requirements in response to a qualified audit report in accordance with the regulator's timeframes; and**
- **acknowledges that an audit may be conducted at any time.**

Attachment 1 – QCA assessment of unit replacement cost for track

Item	Quantity per km		Unit rate	$
Rail				
Rail	120	tonne	$900	108,000
Factory Welding	72.9		$75	5467
Field Welds	6.11		$400	2444
Transport	18,000	tonne km	$0.10	1,800
Sub Total				**117,711**
Sleepers				
Supply	1500		$65	97500
Transport	67 500	tonne km	$0.10	6 750
Sub Total				**104,250**
Ballast				
Ballast Supply	1500	cu.m.	$11	16,500
Transport	382500	tonne km	$0.10	38,250
Sub Total				**54,750**
Track Laying				
Lay	1000	m	95	95,000
Direct costs of material and labour				**371,711**
Preliminaries incl. Camp				36,500
Rail Markup	0.75%			883
Sleeper Markup	2%			2,085
Ballast Markup	3.50%			1,916
Survey				2500
Construction Management				4,000
Overheads & Profit				25,000
Total Contract Price				**444,595**
Owner's costs				
EPCM				2,500
Owners Costs				2,000
TOTAL COSTS PER KM				**449,095**