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Ms Helen Silver
First Assistant Commissioner
Progress in Rail Reform
Productivity Commission
LB2 Collins St East
Melbourne Vic 8003

Dear Ms Silver

A copy of my further Submission to the Commission is attached. I would like to give evidence at the Adelaide Public Inquiry on May 20. Will be in touch later regarding times but would prefer early afternoon.

Yours faithfully

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1. Introduction

The Submission discusses methods appropriate (or inappropriate) to valuation of rail-specific infrastructure, in particular, routes used for transport of coal and minerals. It also stresses the importance of adequate allowance in rail pricing for productivity-induced cost savings. In the absence of significant market value for the assets, the choice of method of valuation rests essentially between deprival value, replacement cost and historic cost. In such a selection, characteristics of the assets play a significant role. These characteristics include:

a) longevity; and the associated probability that some components at least will never have to be replaced;

b) the preponderance of sunk costs;

c) the manner of accounting for replacement of "like by like"; and

d) depreciation practice in the public and private sectors.

2. Method of Asset Valuation

Deprival value is considered inappropriate, especially in the monopoly or quasi-monopoly supply conditions applicable. In the first place, there is the problem of estimating "future economic benefits foregone" in respect of long-life assets. It is noted that the Report of the Steering Committee on National Performance Monitoring of Government Trading Enterprises, October 1994, specifically rejects present value as inappropriate for long-term assets, emphasising that "it will be difficult to reliably estimate future cash flows. There are also difficulties in determining an appropriate discount rate" [Overview, p. 19]. Surprisingly, the Report does not make similar reservations in respect of deprival value for long-life assets.

The 1994 Report goes on to say that "there is also a circularity problem in the use of the net present value approach to valuation as the selected discount rate will, in fact, determine the rate of return on assets" [Overview, p. 20]. It is surprising that the Steering Committee does not make similar reservations in respect of deprival value. Ergas and King have directed attention to the "circular reasoning" defect inherent in deprival value, a weakness which is accentuated in conditions of monopoly or quasi-monopoly. Gaffikin and Johnstone, in a paper prepared for the Public Service Accounting Sector of Excellence, March 1996, are critical of deprival value as providing "opportunities for creativity and manipulation [p. 20]. They refer to "the most obvious weakness of the method as not its doubtful relevance but rather its inherent subjectivity and scope for discretion manipulation" [p. 19]. Further, it is difficult to follow the Steering Committee's statement that valuation at deprival value satisfies essential criteria of reliability and verifiability [Report, p. 22], especially in the case of railroads where there has been a conspicuous lack of transparency in the past.

The Steering Committee recognises that, under deprival value, "the value to the entity in most cases will be measured by the replacement value" [Report, p. 44]. When short-life assets are involved, it is possible to develop an arguable case for replacement cost, provided that full allowance is made for improvements in service potential. For assets having long lives (at least 50 years for rail infrastructure), the case is much weaker.

Track assets are long-life, with some such as earthworks and tunnels having almost infinite lives. Concrete bridges and conduits are virtually in a similar category. The National Freight Group Costing Convention, 1990, (NFG II) recommended that all non-renewable assets continue to be valued at historical cost but that "renewable" assets be valued at replacement cost. Surprisingly, it included ballast in the latter category; the argument for treating ballast as a "renewable" asset, when its progressive replacement (like by like) to ensure continuity of track standards is accepted as an expense item, is tenuous at best.

The other two items in the "renewable" classification were sleepers and rail. Timber sleepers have a "life" varying with climatic and traffic conditions. Their replacement by equivalent sleepers is an expense whilst, if the replacements are concrete (or steel) sleepers, the cost, as an upgrade, is capitalised, with the depreciated historical cost (WDHC) of the timber sleepers written out of the accounts. This distinction is not of significance on the export coal routes, where concrete sleepers, with a very long life, are laid.

The other "renewable" track category is rail. Again, replacement of like by like is treated as an expense and not capital expenditure. Life of rail on the Hunter Valley line is estimated by RAC as 30 years but BHP research in Australia and overseas is indicative of a much longer life, equivalent to 2,500MT [Mitchell and Madden 'How New Technology can Enhance Efficiency and Productivity in Freight Railways": Paper presented to conference organised by IIR, Sydney, 1994].

As regards signalling and communications equipment, it is doubtful whether anyone would seriously suggest that recent and expected trends in prices of computer and communications equipment indicate the need for revaluation for "maintenance of capital" [a CCA stated reason for revaluation] and to ensure an adequate base against which to measure return.

Capital expenditure on rail infrastructure translates preponderantly to "sunk costs", past and irreversible, and with little or no value other than in use on specific rail operations. Brealey and Myers [Principles of Corporate Finance (1984), p. 87] refer to sunk costs as "spilt milk", irrelevant to a decision to invest further in a project; many other economists have made the same point.

Rail infrastructure assets are irretrievably committed to their present use and hence have negligible market value. In such circumstances, there seems little (if any) justification on grounds of equity for revaluing the assets at replacement cost. The Centre for Transport Policy Analysis, University of Wollongong, has pointed out that "the orthodox result in welfare economics is that (for pricing purposes) they should not be priced at all" [Valuation of Assets in Coal Export: Some Underlying Principles (1989), p. 2]. However, the study concludes that considerations of efficiency and equity "suggest that the user should pay for the opportunities that the community had to forego at the time it committed itself to the investment" [p. 2]. Freebairn in a recent paper [Access to Rail Infrastructure, in Economic Record, September, 1998] reaches similar conclusions. Gaffikin, Johnstone, King, Freebairn and the US Railroad Accounting Principles Board refer to sunk infrastructure costs in essentially the same way.

Replacements of like by like are treated as an expense. In fact, up to 1989, SRA and QR applied no depreciation to infrastructure, giving as a prime reason that the infrastructure is at all times maintained to full efficiency [Advice from ARRDO to Victorian Railways, 1983]. These factors open up interesting aspects of treatment of depreciation as a cost, especially in cost-based pricing. Some in the coal industry have argued that, in such circumstances, depreciation is not justifiable as

a cost. When assets are valued at historical cost, I disagree with this argument; in the strict accounting sense, depreciation is a mechanism for spreading the original capital investment over asset life and there can be little disagreement with such a process, endorsed in Taxation Law and practice. Henderson[1] and Grierson ["Issues in Finance Accounting", 1988] refer to depreciation as meaning "in contemporary accounting, ... an allocation of the cost of an asset over its useful life" [p. 343]. They go on to say that depreciation "cannot be regarded as a source of cash for asset replacement" [p. 347] and add that "in contemporary accounting, depreciation is related to historical cost and not replacement cost" [p. 347]. AAS4 specified that depreciation is a process of allocation rather than a valuation adjustment.

In circumstances where components of rail infrastructure are being constantly and continuously replaced by like assets as an expense, the validity of current cost valuation is itself doubtful and application of depreciation to revaluation of yet more doubtful validity. With cost-based pricing, the customer is debited with the cost of such replacement through its inclusion in maintenance charges. With revaluation, he is required to meet depreciation (and return) on higher replacement cost asset values. In effect, the customer pays twice.
DPS 1.2 emphasises that "information presented in financial statements may be misleading unless recognition is given in these statements to the impact which changing prices have on the operations and affairs of the reporting entity" and it criticises historical cost accounting in that it fails to "systematically recognise" this concept. Accordingly, it is relevant to examine the impact of "changing prices" on costs of assets employed in the rail transport of coal. Although CCA papers refer in passing, almost parenthetically, to the possibility of prices falling, concepts and explanations of methodology are related almost exclusively to asset values as increasing and, consequently, to historical cost as an undervaluation.

In terms of any accounting system, an asset can be undervalued only if two conditions are fulfilled, the first being that the asset will, at some defined time, have to be replaced and the second that, if so, a replacement will cost more per unit of service potential. As indicated, most of the rail infrastructure represents "sunk capital", with all elements fully maintained to high standards, even those elements that have to be replaced having a high "life expectancy".

Additional costs may be incurred in the future through expenditure on spur lines to access new mines and, possibly, on extra crossing loops if traffic growth is substantial, but the essentials of the infrastructure will persist. Furthermore, any additional capital expenditure will be reflected accurately at acutal (historical) cost. Valuation at replacement cost is surely a valid concept only in conditions where there is actual or prospective replacement of existing assets within a conceivable time scale, and this is not a realistic option for coal rail infrastructure.

Incidentally, some coal and mineral routes will never require replacement as mines served will cease to operate prior to "expired life" of the rail infrastructure. Examples include routes serving Kambalda, Leonora, Leigh Creek, South Beachwater and, possibly, Blair Athol, Gregory and Newlands. In such cases, replacement cost has little or no meaning.

Proponents of CCA claim that business decisions are facilitated by information provided under the system, in that it provides data essential to "calculate a more meaningful rate of return as an indicator of an entity's performance". But decision making is not based solely on the form of

[1] Professor Scott Henderson is a past-president of the ASCPA

accounting records as management requires to know not only the current cost of replacing assets and the effect of consumption of resources but has also to evaluate prospective pricing strategies, revenues, costs and return over a period of years. These estimates and strategies must be developed in the light of "best possible" assessments, including trends in demand, existing and latent competition and the rate and extent of technological change. Anthony makes the pertinent comment that "managers are not stupid", consider all options and may price to recover only historical costs if "that is the best pricing policy, given the competitive conditions" [A Case for Historical Costs (1976), p. 71] and adds that, if the "best policy" is to price on another basis, they will act accordingly.

In competitive markets, cost, capital or operating and however measured, is not necessarily the sole determinant of pricing strategy. For example, a primary justification for new investment may ignore "sunk" capital as irrelevant to the decision and consider the criterion as expected return on the new investment, that is, "if it pays for itself" [Baumol (1977), p. 598]. Furthermore, pricing strategies will take account of levels of prices charged, or likely to be charged, by competitors, both in the short-term and over longer periods, market demand and other factors. It is not simply a matter of revaluing existing assets, postulating required rate of return and, importantly, cash flow, and fixing prices accordingly. However, a monopolist with an assured market may act accordingly in respect of provision of transport facilities for coal.

After discussion with a number of major companies, I have concluded that management would be neither advantaged or disadvantaged by current cost accounting or historical cost accounting in its decisions on investment and pricing. It is aware of current costs, capital and operating, but has to decide what will happen to those costs in the "forecasting period" and the likely effects of pricing strategies (possibly alternative strategies) on projected revenues and return. For the last, the absolute amount is the significant figure and it can be assessed against a number of criteria, including assets valued at historical cost or revalued and shareholders' funds.

I have endeavoured to ascertain the extent to which Australian public companies have applied current cost accounting by inquiries of and through accounting bodies, industry organisations, and major companies, which indicate that instances in private industry are few in number. This very limited acceptance is due in part to the attitude of the Australian Tax Office, which does not admit extra depreciation on revalued assets as a deductible amount.

Professor Scott Henderson has expressed the view that less than one per cent of public companies in Australia have adopted CCA and the ASCPA, AICA and the Australian Accounting Research Foundation were unable to provide names of companies. I have noted also that the acknowledged pioneer in the field, Philips, whose use of current cost valuation of assets pre-dated the accounting profession approach of the 1970's by decades, abandoned the concept in the early 1990's, stated reasons being cost and "undue time and effort"[2]. However, many Government trading enterprises have recently adopted at least some of the concepts, especially in respect of revaluation of existing assets.

In the 1980's, SRA valued infrastructure at historical cost. In 1989, Price Waterhouse, in a review carried out for SRA and the NSWCA found that SRA assessed its target "capital cost recovery" on rolling stock assets by applying real interest rates to replacement costs whilst for infrastructure,

[2] Advice from a senior executive of Philips (Australia) on 21 September, 1995.

nominal rates were applied to historical costs of infrastructure. *[Price Waterhouse Urwick Report on Capital Cost Recovery Methodology* (December, 1989), pp 6/7]. Price Waterhouse commented that "we believe that assets which are unlikely to be replaced by assets of a similar nature (such as infrastructure) should be measured at historical cost and that other assets (such as rolling stock) should be measured at replacement cost for capital cost recovery purposes" [Report, p2]. On page 3 of the report, Price Waterhouse find that "since SRA approach to capital cost recovery covers the elements noted, we find their methodology to be appropriate". The report concludes accordingly that "both historical cost and replacement cost have a role in price or price setting' [p 33], emphasises the view that "capital cost recovery on infrastructure (should be calculated) by reference to historical cost' [p 34] and supports this by adding that, as the asset involved will probably not be replaced by an asset similar in nature, historical costs are actual and verifiable and readily available and "the problem of finding an acceptable method of valuing assets and escalating values is avoided" [p 34]. However, by 1990, SRA had "changed its mind" on valuation of infrastructure, advising the Industry Commission Inquiry into Rail Transport that it favoured valuation of "non-renewable" elements at historical cost, and "renewable" assets (rail and sleepers) at replacement cost [Submission 98, pp 3, 15, 16], the dichotomy recommended in NFG II. Subsequently, SRA changed to replacement cost valuation of infrastructure.

In terms of any accounting system, an asset can be undervalued only if two conditions are fulfilled, the first being that the asset will, at some defined time, have to be replaced and the second that, if so, a replacement will cot more per unit of service potential. Most of the rail infrastructure represents "sunk capital", with all elements fully maintained to high standards, with even those elements that have to be replaced having a "life expectancy" of at least 50 years. As already indicated, replacements of "like by like" are costed as maintenance.

CCA has also raised the possibility of cumulative understatement over asset life, even when depreciation is related to current cost, the concept of the "back log" [DPS 1.2, p. 15]. On the face of it, there seems to be a confusion between depreciation as a means of allocating cost of an asset over its working life with the need to provide funds for its eventual replacement, or to amortise original cost in the case of a "non-renewable" asset. Henderson and Grierson, in the context of CCA statements on the "back log", comment that "depreciation does not have as its objective the accumulation of funds for asset replacement" [Issues in Financial Accounting (1988), p. 657]. In fact, the "back log" concept seems to ignore the fact that deprecation, as a non-cash cost, results in cash flow available for investment, inside or outside the business. It is concluded that the possibility of "under provision" may be disregarded in the context of coal rail assets. Support for this conclusion but in a more general application, comes from Wright, who has expressed the view that "in most circumstances, (accumulated amounts) would be sufficient to provide for the replacement of the firm's assets" [Wright, K.F.: Current Value Accounting and the Depreciation Gap: in *The Australian Accountant* (August, 1988), pp. 380-4].

3. Attitudes in the USA

Views of Anthony, as published in 1976, have been frequently referred to previously. Whilst freely admitting that he is an advocate of historical cost, he raises an interesting point when contending that "the burden of proof should be on those who propose a change. Replacement cost advocates have offered no evidence to support their position" [p. 78]. He also quotes Wriston as saying that "the intellectual exercises (CCA theory) which are now starting to move from drawing room

dialogues to the market place appear to be entirely self-propelled in the sense that ... there is just no demand for a new accounting system from those who must use the product". Wriston also emphasises that "investors are currently (1976) confused by the current over recording of short term swings, which tend to obscure the long term trends of the business" [Wriston, W.B. in Financial Executive (September, 1976) p. 13].

The views of the US Railroad Accounting Principles Board on asset valuation are of particular interest from several aspects, first, because of its membership, second, because of its role in determining principles of railroad accounting and third, because its findings were binding on the Interstate Commerce Commission, as the arbiter of disputes on charges for rail and other utility services. Its membership included the US Comptroller-General, the Professor of Economics at Yale, Professor of Accountancy at Columbia, the Executive Vice President of the American Association of Railroads and the President, Shell Mining Company. Constituted in 1984 to "establish a body of cost accounting principles" for regulatory cost determinations and to "make administrative and legislative arrangements to integrate these principles into the regulatory process" [p. 2], the Board reported to Congress (which endorsed its Report) in September, 1987. The Report was lengthy and detailed and I shall refer only to recommendations on valuation of assets and measurement of cost of capital.

In its deliberations, the Board analysed alternative methods of asset valuation and, in particular, methods of valuing at current cost, namely, market value, reproduction cost, replacement cost and net liquidation value, as well as historical cost. Each of these was examined from aspects such as practicality, verifiability and objectivity, compensation for price level changes and capital requirements [pp 39-40]. The Board did not consider market value as a viable option for valuation of highly specialised rail assets, and it also rejected reproduction cost as lacking reality in an area where technological change is proceeding rapidly and assets have long economic lives and net liquidation valuation was considered to be an exercise lacking reality in most instances. The Board therefore concluded that the choice rested between replacement and historical cost [p 41.42].

In examining replacement cost valuation, the Board defines it as value determined either directly or by some form of indexation and concludes that use of replacement cost "violates the data integrity principle, especially if indexation is used" [p 42]. Under that principle, cost and related information should be "valid, accurate and verifiable" and, to meet those standards, information must represent what it purports to represent (validity), be free form significant error (accuracy) and include "all factors supporting the judgement" (verifiability). The Board comments that, except in rare instances "where replacement cost conforms precisely with the replaced asset in performance and cost, those considerations are not met with valuation at replacement cost" [pp 42/43]. However, measurement at historical cost is considered by the Board to be valid, accurate and verifiable, as the information is readily available in relation to actual construction/acquisition costs.

Furthermore, as market rates of return vary in nominal terms with changes in nominal rates of interest, investors are compensated for "general price level changes through (the) increased cost of capital rate" [p 42]. The Board also dismisses the "argument advanced for current cost asset valuation that (only) its use will provide capital adequate to replace the assets of the enterprise" [p 43], with that rebuttal related to considerations already discussed.

As already mentioned, the recommendations of the RAPB, when endorsed by Congress, were binding on the ICC. In a decision of March 22, 1989, (5ICC 2d 344), the Commission stated that

"the problems in estimating the current replacement value of assets are inherently so difficult that we have rejected it in (this and) other contexts, as has the Railroad Accounting Principles Board" [p. 20].

The Interstate Commerce Commission's fundamental accounting and regulatory policy governing the reasonableness of railroad rates, charges, and revenue adequacy utilized the following capital charge components:

- Asset values at their original cost;
- Depreciation based on that original cost, less estimated salvage; and
- A current nominal rate of return.

Although the Commission, from time to time, considered making revisions to this fundamental accounting and financial policy, it did not do so for at least the past 75 years.

All U.S. railroads were required to maintain their financial records in accordance with the *Uniform System of Accounts for Railroad Companies*, as prescribed by the ICC.

This system of accounts, which consists of the traditional financial statements of Income Statements, Balance Sheets, and Sources & Uses of Funds statements, provided the basis not only for financial reporting by the U. railroads for regulatory purposes, but for other regulatory purposes including the determination of the adequacy of the revenues of each railroad and calculations of the costs of providing services for specific commodities, shippers, and line segments.

The ICC's *Uniform System of Accounts* defined the asset value to be recorded in each railroad's property accounts as historical or original cost, according to the following instruction:

> "2-1 *Items to be charged*. (a) To the road and equipment property accounts shall be charged the cost of purchasing land, the cost of purchasing and constructing buildings, facilities and equipment, and the cost of additions and betterments to property. "Cost" means the amount of money actually paid for property or services...."
> (49CFR Ch. X, Part 1201)

The ICC's *Uniform System of Accounts'* instructions for depreciation accounts is reproduced in Appendix A. As an examination of this Appendix will confirm, the depreciation rate is applicable to the historical cost of the asset less its estimated salvage value.

4. Conclusion on Appropriate Method of Valuation

I have concluded that, for valuation of rail-specific infrastructure assets used in transport of coal, historical cost is the preferred option. In arriving at that conclusion I have considered the advantages claimed by proponents of current cost accounting for valuation at replacement cost and, in particular, concepts of capital maintenance, operating capacity and quality of information for decision making and for shareholders. My research indicates that, for rail-specific infrastructure assets at least, the objectives innate in these concepts are fulfilled by historical cost valuation. Furthermore, the latter has specific advantages in that data is valid, accurate and verifiable. The

costs are factual and not dependent on assessments of relative service potential nor use of indexation to revalue existing assets, assessments which may not reflect actual variations in asset prices. Even the most ardent proponents of CCA admit replacement cost introduces elements of uncertainty, especially when some form of indexation is applied to deduce replacement values, an inescapable procedure with long life assets. For rail infrastructure with a life of at least 50 years, indexation may be a crude form of assessment of variations in construction costs to reassess values of what represents largely, if not wholly, sunk capital.

These are negatives for replacement cost valuation of coal rail assets, however applied, but there are also positives for valuation at historical cost, objectivity, reliability and verifiability being obvious characteristics. There is no subjectivity involved, valuations are reliable in the sense that they represent actual expenditures and, as such, they are verifiable. For long life assets, including sunk capital, these are considered significant advantages especially for assets with characteristics as outlined.

Furthermore, there is no need for time-consuming and possibly costly procedures to arrive at alternative costs, which must in most instances (for rail-specific infrastructure assets at least) involve subjective assumptions and even speculation. The continuing use of nominal cost of capital in evaluation of target returns on assets valued at historical cost ensures that the need for greater return on assets (or investment) during periods of high inflation is indicated and targeted. I have also considered advantages claimed for CCA as regards suitability of information for decision making and have concluded that adherence to historical cost does not impair the ability to make sound economic and business decisions on new investment. In fact, the revaluation of infrastructure, embodying a preponderate degree of sunk capital, would be an unusual departure from economic principles.

Freebairn, Gaffikin and Johnstone, the Wollongong University Institute of Transport, King and Price and Waterhouse have supported historical cost as the appropriate method of valuation for rail infrastructure. It is noted that the Productivity Commission's Report on the Black Coal Industry and the draft Report on Rail Reform refer to the ACCC as preferring replacement cost when "gold plating" occurs in investments; this is not the case for rail infrastructure. My recollection is that the ACCC's comment was made in the context of investment in air terminal complexes. It is also my understanding that the ACCC considers method of valuation on a "case by case" basis; my approach is consistent with such a procedure.

5. Escalation and Productivity

In circumstances where future increases in unit costs, e.g. wage rates and prices of materials and services, are inevitable, rail costs exceed best practice levels and productivity is improving, due allowance for both costs increases and cost savings is of great importance. This is especially the case in circumstances of monopoly or quasi-monopoly supply, where market forces do have limited impact.

An approach to escalation which has found favour is to apply a CPI minus X type of indexation, where X represents a proportion of productivity-induced cost savings. This procedure has two significant defects. First, productivity savings have to be assessed in advance and, inevitably, they will be understated. Secondly, the supplier retains, probably for many years at least, part of the

benefits from the cost-savings, inevitably increasing his profitability; during periods of high inflation, this increase will be substantial.

There are two paramount considerations, first, that productivity should be shared[3] and, second, that the sharing should mimic the situation which would apply in a competitive environment. In that situation, a supplier achieving superior efficiency would have an advantage over his competitors for a limited, although possibly not brief, time period. Accordingly, the passing-on by the rail supplier of the full benefit to him of cost-savings arising from greater productivity after a prescribed period is the preferred option, as providing the supplier with an incentive because he will enjoy the benefits of his initiatives for a time, with the user benefiting in full in due course[4]. Such a procedure has been operative in the USA since 1989, as a result of an ICC initiative.

The RAPB, in its analysis of means of measuring cost charges accurately for "railroad regulatory purposes" in the USA made a "Statement of Principle" that the indices "shall incorporate changes in productivity as well as changes in input prices" [RAPB Report (1987), p. 52]. Furthermore, the RAPB recommended that the ICC "implement an appropriate methodology to measure and incorporate productivity into input indices" [p. 54].

Over the objection of Consolidated Rail Corporation (Con Rail) and the Association of American Railroads, the ICC decided to include a deflator for railroad productivity gains in calculating approved adjustments to freight rates and, in the second quarter of 1989, began adjusting the RCAF for "changes in productivity, lagged by two years". In so doing, the Commission adopted a modified version of the Caves-Christensen-Diewert measure of TFP. The ICC considered that a decision to "lag" the adjustment for productivity by 2 years would avoid "dampening unduly" the railroads' incentive to achieve productivity, by replicating the position of a supplier who, in a "pure" competitive market gains a temporary advantage through improved efficiency. In recognition of the "lag", the whole of the cost benefit was to be passed on to the customer so as to "even-out" short term "inconsistencies". The ICC also decided that "the annual measurement of industry-wide productivity (should) be based on a five year moving average"[5] [ICC: "Railroad Cost Recovery Procedures = Productivity Adjustment - (20/03/89), p. 2].

The US Department of Energy has commented that the ICC has established a "sophisticated" measure of changes in total factor productivity, which "accounts for changes in the mix of rail traffic and inputs", adding that "using this productivity adjustment formula, the ICC has slashed the carriers' requested rate increases as much as two thirds in a single quarter" [Innovative/Alternative Transport Modes for Movement of US Coal (1990), p. 44].

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[3] Between supplier, user and work force, the last reflected in greater supplier input costs.

[4] Of interest is that I was closely associated with a procedure for sharing of productivity gains 45 years ago. The PMG Department had entered into arrangements with manufacturers for supply of exchange equipment and cable from local factories. Prices believed to be adequate to give the companies a predicated X per cent return on funds "actually and necessarily employed" were fixed for 2 years. If that return was found to have been exceeded, prices for the next two years were reassessed. As a contract condition, PMG cost investigators under my direct control had full access to company records, staff and premises.

[5] The American Association of Railroads and others appealed against the ICC decision and questioned its authority to make such a ruling (1991). After hearing extensive evidence from the American Association of Railroads and a number of its member companies, the Federal Court of Appeal found that "the Commission did not exceed its statutory authority by including railroad productivity gains in the RCAF" [United States Federal Court of Appeal, District of Columbia Circuit - Decision of July 24, 1992, pp. 221/230].

Measures of rails productivity in the USA and the manner of their application have been discussed at length, because they represent practical procedures for adjusting for productivity gains, not on a basis involving estimates of future gains, inevitably using “safe”, low estimates, but on adjustments related to achieved productivity gains. In those adjustments with the 2-year lag, there is incentive to the supplier in that he benefits for that period and, concurrently assurance to the user that he will, in the ultimate, benefit from the total gain, replicating the situation that would apply in a contestable market.