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# **RAILROAD ACCOUNTING PRINCIPLES**

**FINAL REPORT**

**September 1, 1987**

**Volume 1—Summary of Report**



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## RAILROAD ACCOUNTING PRINCIPLES BOARD

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September 1, 1987

The President of the Senate  
The Speaker of the House of Representatives

The Railroad Accounting Principles Board is pleased to issue its report, as required by the Staggers Rail Act of 1980, 49 U.S.C. 11167. Volume 1 - Summary Report, contains Railroad Accounting Principles and explains how the principles apply to cost determinations made in regulatory proceedings before the Interstate Commerce Commission. Volume 2 - Detailed Report, discusses these matters in greater detail and elaborates on the factors the Board considered in reaching its conclusions.

This report is the culmination of more than two and one-half years of deliberations by the Board, during which time the Board received comments from the Interstate Commerce Commission, the railroad industry, shipper groups, and other interested parties. The comments contributed significantly to the formulation of the principles and recommendations contained in the report.

The general consensus on the report as a whole does not mean that the Board reached a unanimous opinion on every aspect of the report. For certain issues, individual Board members preferred different approaches. The Board believes, however, that its conclusions and recommendations will assist the ICC in determining railroad costs, and, therefore, is unanimous in its decision to issue this report.

A handwritten signature in cursive script that reads "Charles A. Bowsher".

Charles A. Bowsher  
Chairman



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# EXECUTIVE SUMMARY

In accordance with its congressional mandate, the Railroad Accounting Principles Board (RAPB) established eight Railroad Accounting Principles to govern the determination of costs for specific regulatory purposes. The RAPB also made several recommendations to the Interstate Commerce Commission (ICC) for implementing these Principles.

The RAPB believes that implementation of these Railroad Accounting Principles and its recommendations will help make railroad cost accounting for regulatory purposes more sound, consistent, and economically accurate.

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## RAILROAD ACCOUNTING PRINCIPLES

The RAPB has established four general Principles and four specific Principles which are summarized below. The full text of these Principles begins on page 9.

### General Principles

**Causality.** Costs shall only be attributed to cost objectives when a causal relationship exists (the cost would not have been incurred but for the requirements of the cost objectives).

**Homogeneity.** Cost information shall be organized in homogeneous cost pools.

**Practicality.** Cost and related information shall be feasible to obtain, efficiently determined, and material in amount.

**Data Integrity.** Cost and related information shall be valid, accurate, and verifiable.

### Specific Principles

**Entity.** The railroad entity shall comprise the activities of affiliated railroads and their railroad-related affiliates.

**Cost of Capital.** The cost-of-capital rate shall be a weighted average rate computed using the proportions of debt and equity as determined by their market values and their current market rates.

**Asset Valuation and Related Expense.** Assets shall be valued at either the value of resources forgone by the entity to acquire the assets (GAAP cost) or at the current market value, depending on the regulatory application.

**Productivity.** To measure cost changes accurately, indices used for railroad regulatory purposes shall incorporate changes in productivity as well as changes in input prices.

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## **EFFECTS OF PRINCIPLES**

The Principles adopted by the RAPB will affect the specific regulatory applications as follows:

**Revenue Adequacy.** Return on investment shall be calculated for the railroad entity as a whole, rather than for individual railroad companies. Transactions with others or reclassifications between railroad-related and nonrailroad-related status are to be recorded at fair market value. The net investment base shall consist of historic net assets less deferred tax credits, rather than net assets only. The calculated return on investment shall be compared with a nominal current market cost-of-capital rate for the railroad industry or, where appropriate, an individual railroad.

**Maximum Rate.** Where stand-alone costs are used, costs shall reflect assets at current market value at time of entry of the hypothetical competitor. A discounted cash flow method applied on an after-tax basis is preferred for determining return of and return on assets, although other methods which recognize the time value of money also may be used.

**Competitive Access.** To the extent costs are a factor, the relevant costs are the incremental costs over the time period for which access is granted.

**Abandonment/Surcharge.** Avoidable costs (including opportunity costs) shall be used.

**Minimum Rate/Long-Cannon Factor.** Avoidable costs shall be used.

**Rail Cost Adjustment Factor.** To measure cost changes accurately, the RCAF should include an appropriate productivity measurement.

**General-Purpose Costing Systems.** Cost variability should be determined using regression analyses and individual railroad cost elasticities. Individual railroad cost elasticities may be estimated from regression equations derived from nationally pooled data.

The use of nationally pooled data appears to be the only practical approach for regression analysis at the present time. However, as more individual railroad time series data are accumulated in the future, estimates of an individual railroad's cost elasticities may be possible using only that individual railroad's data.

Regression analyses should be updated periodically. Historic expense information shall be collected for the railroad entity and conform to generally accepted accounting principles with sufficiently detailed cost pools. Present R-1 reporting entities may be continued for practicality reasons.

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## **RECOMMENDATIONS**

While many of the ICC's current regulatory practices can remain intact, implementation of the Principles will require certain practices to be modified. The RAPB makes the following administrative recommendations to the ICC:

- The ICC should require independent accountants to comply with Statements on Auditing Standards No. 35 and the American Institute of Certified Public Accountants *Statement on Standards for Attestation Engagements* (and/or their successor pronouncements) when preparing reports using agreed-upon procedures.
- To the extent the ICC is unable to obtain financial reporting for railroad-related affiliates as described by the Entity Principle, transactions between railroads and railroad related affiliates shall be recorded at fair market value in the same manner as between the railroad entity and others.
- Within 18 months, the ICC should implement appropriate productivity measures after study and public participation.
- Further study of the Uniform Rail Costing System with appropriate public participation should be undertaken and completed within 18 months. The RAPB has identified some subjects for further study. The ICC should delay implementing the URCS until the studies are complete.
- General-purpose costing systems used by railroads should be reviewed not less than every three years for potential updating through a formal process permitting all interested parties to participate.
- The Congress should monitor implementation of the Railroad Accounting Principles. Within two years after the date of this report and annually thereafter, the ICC should report to the Congress on the status of implementing the Railroad Accounting Principles.





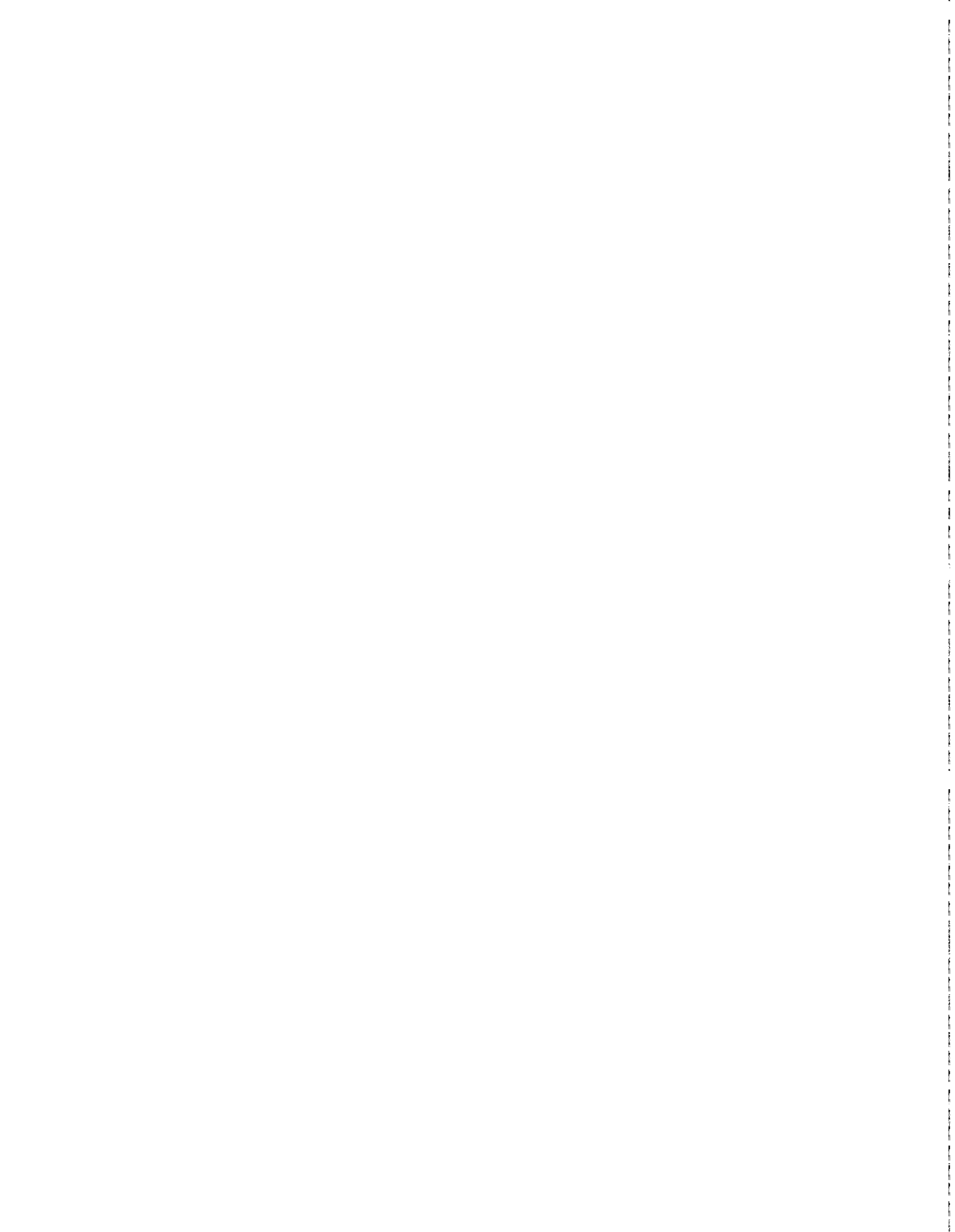
# RAILROAD ACCOUNTING PRINCIPLES

FINAL REPORT

September 1, 1987  
Volume 1—Summary of Report



RAILROAD ACCOUNTING PRINCIPLES BOARD



**RAILROAD ACCOUNTING PRINCIPLES BOARD**

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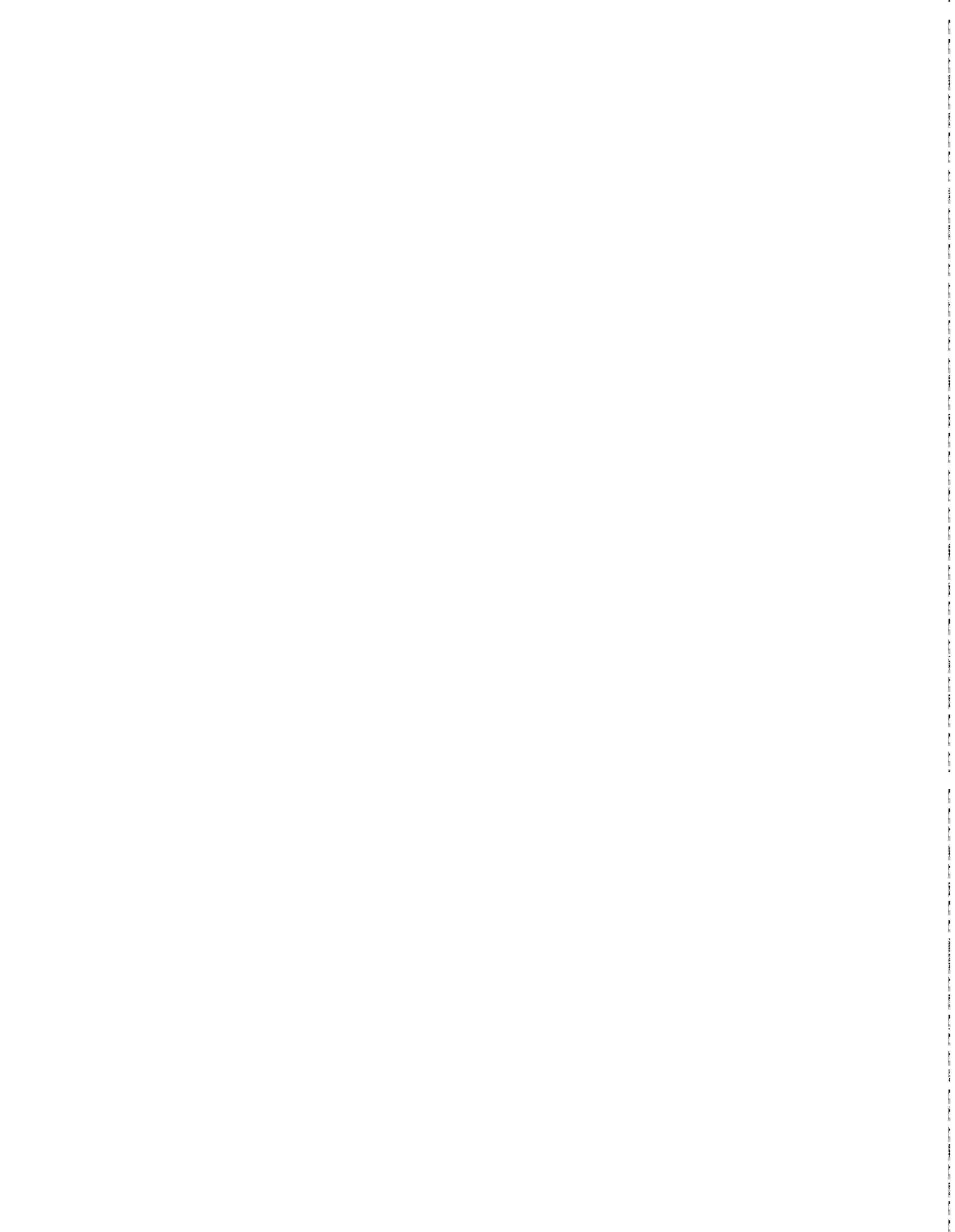
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# ACKNOWLEDGMENTS

The Board members wish to commend the staff of the RAPB for their professional dedication to achieving the RAPB's objectives. Their support was essential to the completion of the RAPB's mission.

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General Counsel

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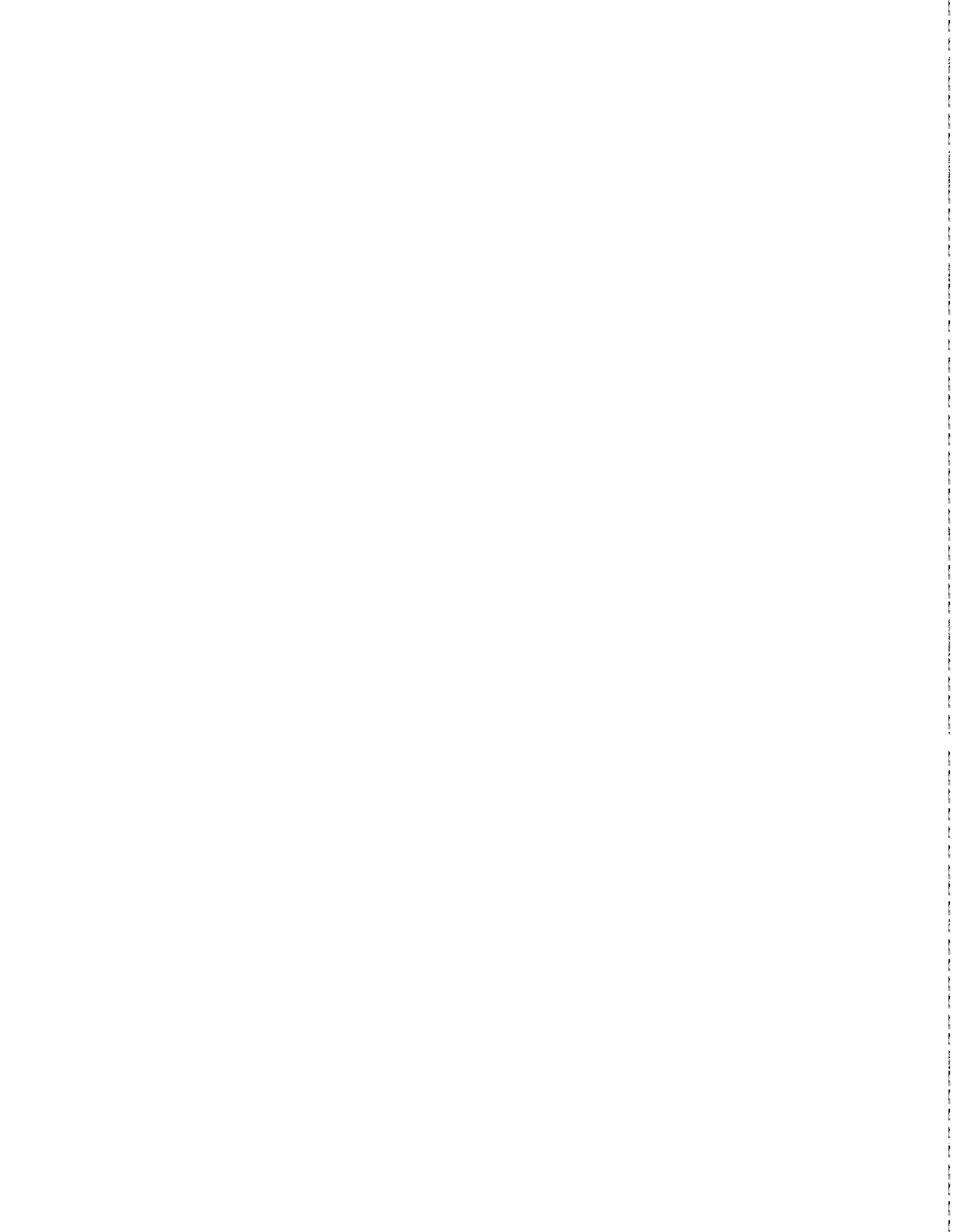
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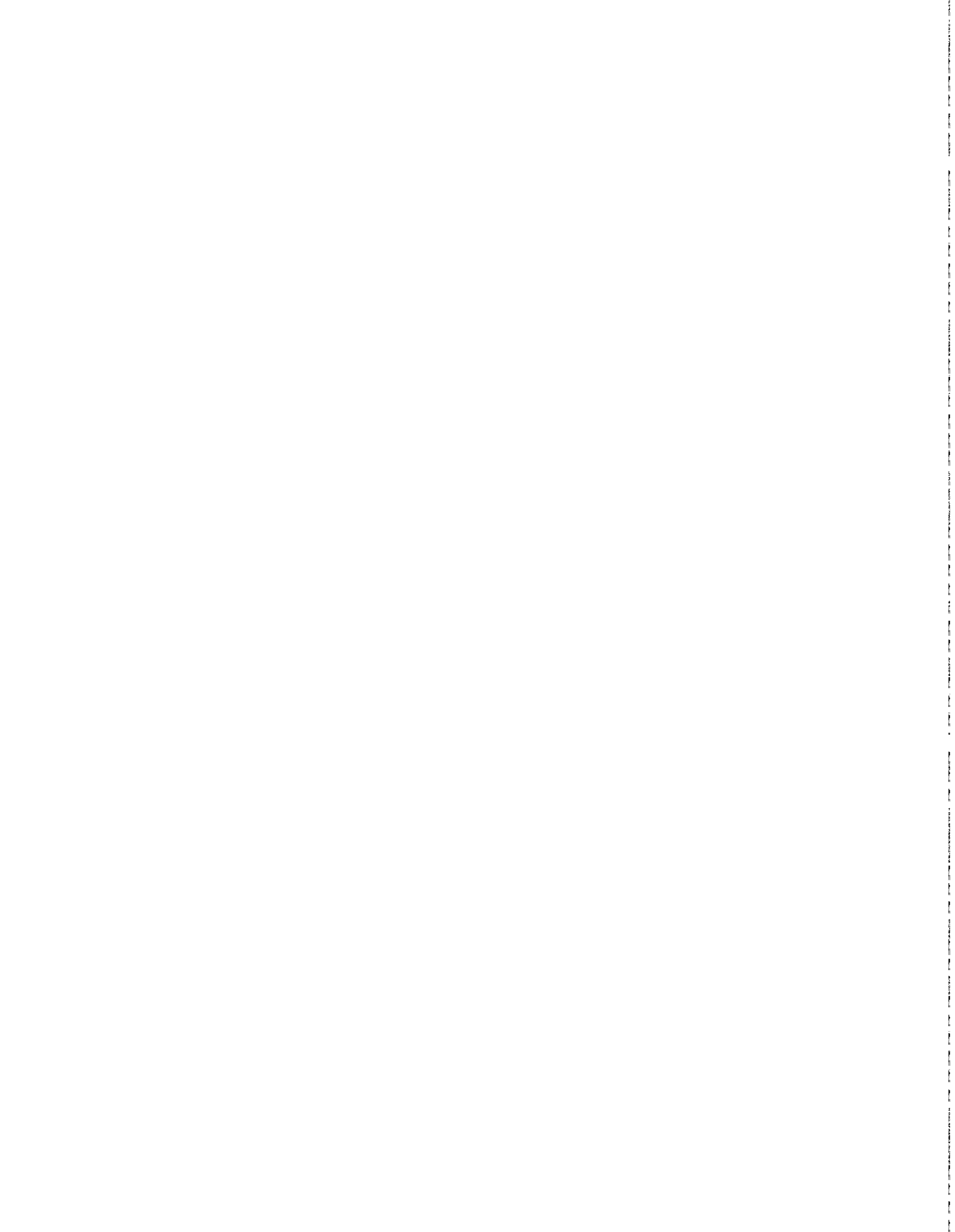
Lynn M. Harding  
Secretary

The Board also wishes to thank Milton J. Socolar, Arthur Schoenhaut, Rein Abel, and others at the General Accounting Office for their support of the Board's activities.



# CONTENTS

<u>VOLUME 1</u>	<u>Page</u>
Abbreviations	xiii
Introduction	1
Legislative Background	1
Specific Regulatory Applications	2
General-Purpose Costing Systems	5
CHAPTER	
1 Railroad Accounting Principles	7
Causality	9
Homogeneity	11
Practicality	12
Data Integrity	14
Entity	16
Cost of Capital	19
Asset Valuation and Related Expense	21
Productivity	23
2 Effects of Principles on Specific Regulatory Applications and General-Purpose Costing Systems	25
Revenue Adequacy	25
Maximum Rate	26
Competitive Access	27
Abandonment/Surcharge	28
Minimum Rate/Long-Cannon Factor	28
Rail Cost Adjustment Factor	29
General-Purpose Costing Systems	29
3 Effects of Principles on Existing ICC Practices	31
All Regulatory Applications	31
Specific Regulatory Applications	33
General-Purpose Costing Systems	33
Statements Of Individual Board Members	35

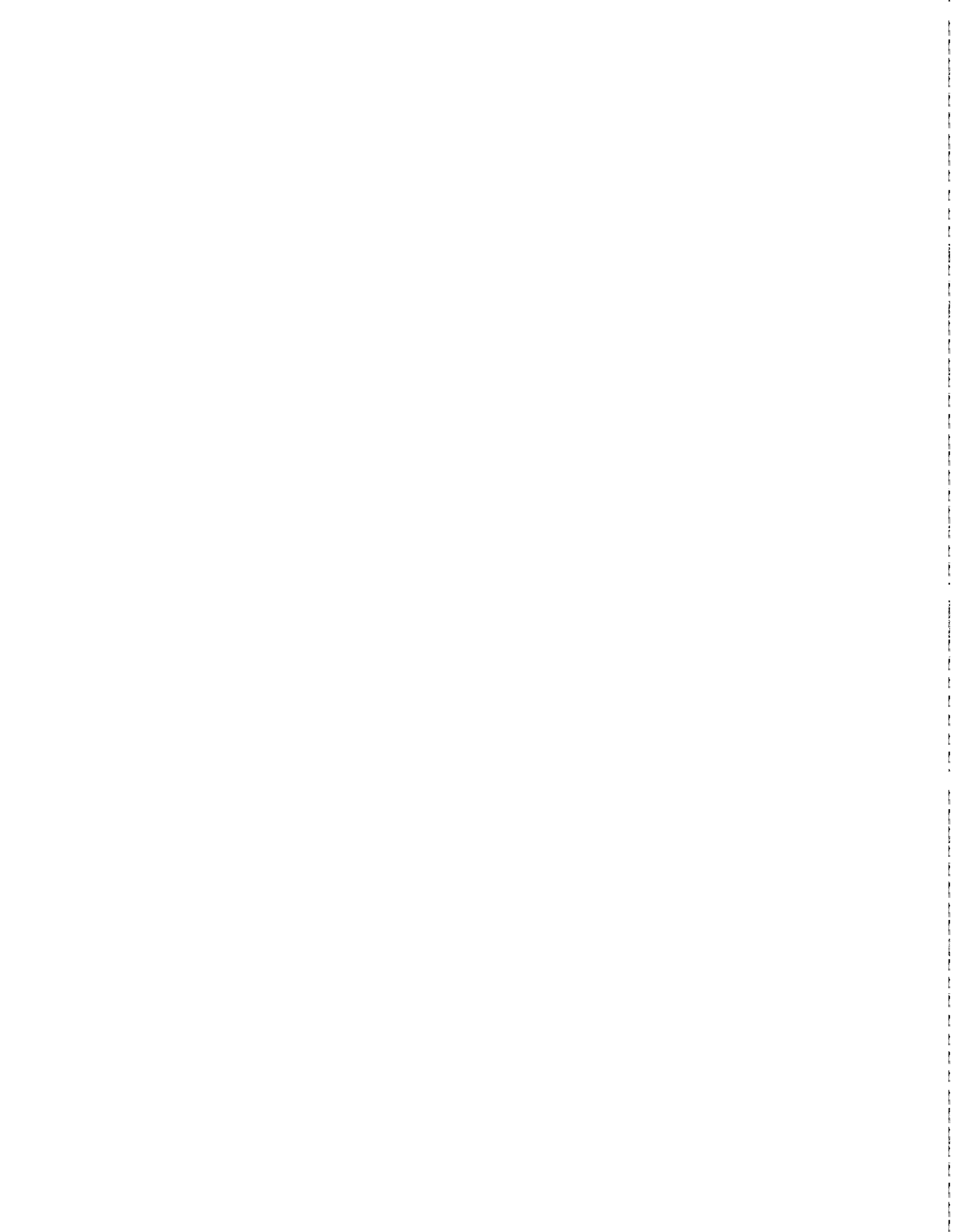




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# ABBREVIATIONS

AICPA	American Institute of Certified Public Accountants
GAAP	generally accepted accounting principles
GPCS	general-purpose costing systems
ICC	Interstate Commerce Commission
R-1	Railroad Annual Report Form R-1
RAPB	Railroad Accounting Principles Board
RCAF	Rail Cost Adjustment Factor
RFA	Rail Form A
SAS	Statements on Auditing Standards
SRA	Staggers Rail Act of 1980
USOA	Uniform System of Accounts
URCS	Uniform Rail Costing System
4-R Act	Railroad Revitalization and Regulatory Reform Act of 1976



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# INTRODUCTION

In accordance with its congressional mandate, the Railroad Accounting Principles Board (RAPB) has established eight Railroad Accounting Principles to govern the determination of costs for specific regulatory purposes. The RAPB describes those Principles and their application in this document.

This volume, Volume 1, identifies the Principles, briefly discusses the regulatory circumstances in which those Principles will apply, and outlines the effects those Principles are intended to have on existing Interstate Commerce Commission (ICC) practices.

Volume 2 discusses these matters in greater detail. It explains the main alternative principles considered by the RAPB during its deliberations and the factors which contributed to the conclusions reached by the RAPB.

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## LEGISLATIVE BACKGROUND

The Railroad Revitalization and Regulatory Reform Act of 1976 (4-R Act) was enacted by the Congress to improve the financial viability of the nation's railroads. This legislation made a number of sweeping changes in the railroad regulatory environment and emphasized the need for the ICC to use more accurate accounting and cost data.

In response to this need, the ICC revised and expanded its prescribed regulatory accounting system, the Uniform System of Accounts (USOA), in 1978. The ICC also began a program to replace its existing Rail Form A (RFA) costing system with a more sophisticated Uniform Rail Costing System (URCS).

RFA and the URCS are accounting allocation systems that use statistical techniques to generate variable unit costs from annual expense and operating information reported to the ICC. RFA was originally developed in 1939 using the USOA developed in 1907. Its underlying statistical studies were last updated in 1972. The URCS, which has not yet been approved for regulatory costing purposes, has its roots in the revised and expanded USOA and in statistical studies completed in 1982. The URCS is designed to facilitate more frequent updating of the statistical studies.

The Staggers Rail Act of 1980 (SRA) further reduced the scope of rail regulation. It was intended to provide the railroad industry with additional incentives for ensuring the railroads' long-term

viability while attempting to balance the needs of carriers, shippers, and the public where competition does not exist.

Certain important issues dealing with cost determination were left unresolved by the SRA. These issues long have been the basis for disagreement between shippers and the railroads.

The RAPB was created by the SRA in 1980 and was funded in 1984 (1) to establish a body of cost accounting principles to serve as the framework for implementing the regulatory provisions in which cost determination plays a vital role and (2) to make administrative and legislative recommendations it deems necessary to integrate the principles into the regulatory process.

According to the SRA, the ICC must implement and enforce the RAPB's Principles through the rulemaking process, which will afford interested parties an opportunity to participate. Because the ICC is ultimately responsible for cost principles, it must review the Principles in light of rulemaking comments from interested parties and reasonably explain the rules it adopts. However, as part of the rulemaking process, the ICC must accord substantial deference to the RAPB's Principles and to the rationale underlying those Principles.

During the past two and one-half years, the RAPB has considered various issues and proposed principles, relying on staff research, legal counsel, consultants, ICC proceedings, and public comment. The RAPB published a notice in the February 20, 1985, *Federal Register* inviting the public to comment on the issues the RAPB should address. The RAPB published a notice in the January 31, 1986, *Federal Register* inviting the public to comment on and propose solutions to a series of issues and questions contained in an RAPB discussion memorandum. The RAPB published a notice in the February 20, 1987, *Federal Register* inviting the public to comment in written form on proposed principles and recommendations contained in an RAPB exposure draft of this report. Finally, the RAPB held a public hearing on the proposed principles on April 30, 1987, in Washington, D.C., at which interested parties appeared and presented oral statements.

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## **SPECIFIC REGULATORY APPLICATIONS**

The Railroad Accounting Principles provide a framework for determining railroad costs for specific regulatory applications. The Principles apply primarily to Class I railroads, their affiliated Class II and III railroads, and other railroad-related affiliates. If, however, the ICC requires that other Class II or III railroads provide cost information like that provided by Class I railroads for specific regulatory purposes, the Principles also would apply.

The Railroad Accounting Principles do not provide guidance for every regulatory determination that the ICC must address. For example, they do not address allocations of cost (or apportionments of burden) that depend only on regulatory policy objectives.

The SRA provides that the RAPB take into account the specific regulatory purposes for which railroad costs are required. During the RAPB's deliberations, some commenters argued that the SRA did not grant the RAPB jurisdiction to provide for certain of the Principles' applications covered in this report. The RAPB has determined that the Principles and their applications provided herein are fully within the scope of its statutory mandate. (Supporting opinions of counsel may be found at Volume 2, Appendix.) The specific regulatory applications addressed by the Railroad Accounting Principles are described below.

### **Revenue Adequacy**

The ICC is required to determine annually whether individual railroads generate revenues that are adequate to cover total operating expenses and the cost of capital. Railroads that are revenue adequate are subject to greater regulatory control than those that are not.

The regulatory standard adopted by the ICC to measure revenue adequacy is whether return on investment equals cost of capital. The RAPB has focused its efforts on the cost elements of the regulatory standard and not on the regulatory policy issue of the appropriate standard for determining revenue adequacy.

### **Maximum Rate**

Railroads may not charge a captive shipper a rate exceeding a reasonable maximum level. One of the factors the ICC presently considers in determining whether a rate is reasonable is its relationship to cost.

The ICC considers a rate for large movements of coal to be unreasonable if it exceeds the costs that a hypothetical new competitor would incur to provide the needed service to the captive shipper and other designated shippers. These costs are referred to as stand-alone costs. However, in maximum rate reasonableness proceedings on other than large movements of coal, the ICC has accepted cost evidence based on other methodologies and has proposed regulatory standards other than stand-alone costs.

The RAPB has focused its efforts on stand-alone costs without addressing whether it is the appropriate regulatory cost standard for maximum rate reasonableness cases.

## **Competitive Access**

The ICC may establish reasonable rates that one railroad may charge another railroad for providing switching services or for using its tracks. In addition to considering the cost to the railroad providing access, the ICC also considers other factors.

Joint rate/route cancellations are sometimes considered within the purview of competitive access. However, variable costs used in such cases are typically developed from general-purpose costing systems (GPCS), are subject to movement-specific adjustments, and do not require separate specific application consideration.

## **Abandonment/ Surcharge**

A railroad may be allowed to abandon a branch line or add a surcharge to shipments to or from a branch line if the railroad is earning insufficient revenue from the line. According to the present ICC standard, branch-line revenues are sufficient if they equal or exceed (1) the cost that could be avoided by the railroad if it did not have to serve the branch line in question, including the opportunity cost associated with maintaining service, and (2) that portion of the railroad's nonbranch-line variable cost associated with the shipments originating or terminating on the branch line.

## **Minimum Rate/Long- Cannon Factors**

The ICC prohibits railroads from setting rates below a reasonable minimum level which the ICC has determined to be equal to directly variable cost. Also, the ICC is required to consider three factors, known as the Long-Cannon factors, in determining whether a rate exceeds a reasonable maximum level:

1. Traffic which does not contribute to going concern value.
2. Traffic on which revenues can be increased.
3. Traffic paying an unreasonable share of revenues.

The RAPB addressed only the ICC's minimum rate reasonableness requirement and the first Long-Cannon factor in terms of determining the minimum costs which must be recovered to contribute to the going concern value. Both of these determinations use the same costs. The two remaining Long-Cannon factors involve management pricing efficiency and cross-subsidy considerations where the role of cost is not clearly defined by current ICC policy. Consequently, subsequent references to "Minimum Rate/Long-Cannon Factor" pertain only to the first of the three Long-Cannon factors.

## **Rail Cost Adjustment Factor**

Railroads are permitted to seek recovery of inflationary cost increases with minimal regulatory involvement by indexing tariff

rates. They recover such costs using an index known as the Rail Cost Adjustment Factor (RCAF).

The RCAF currently is computed using a forecast index of industry-wide railroad input prices comprised of labor, fuel, materials and supplies, equipment rents, depreciation, and other expenses.

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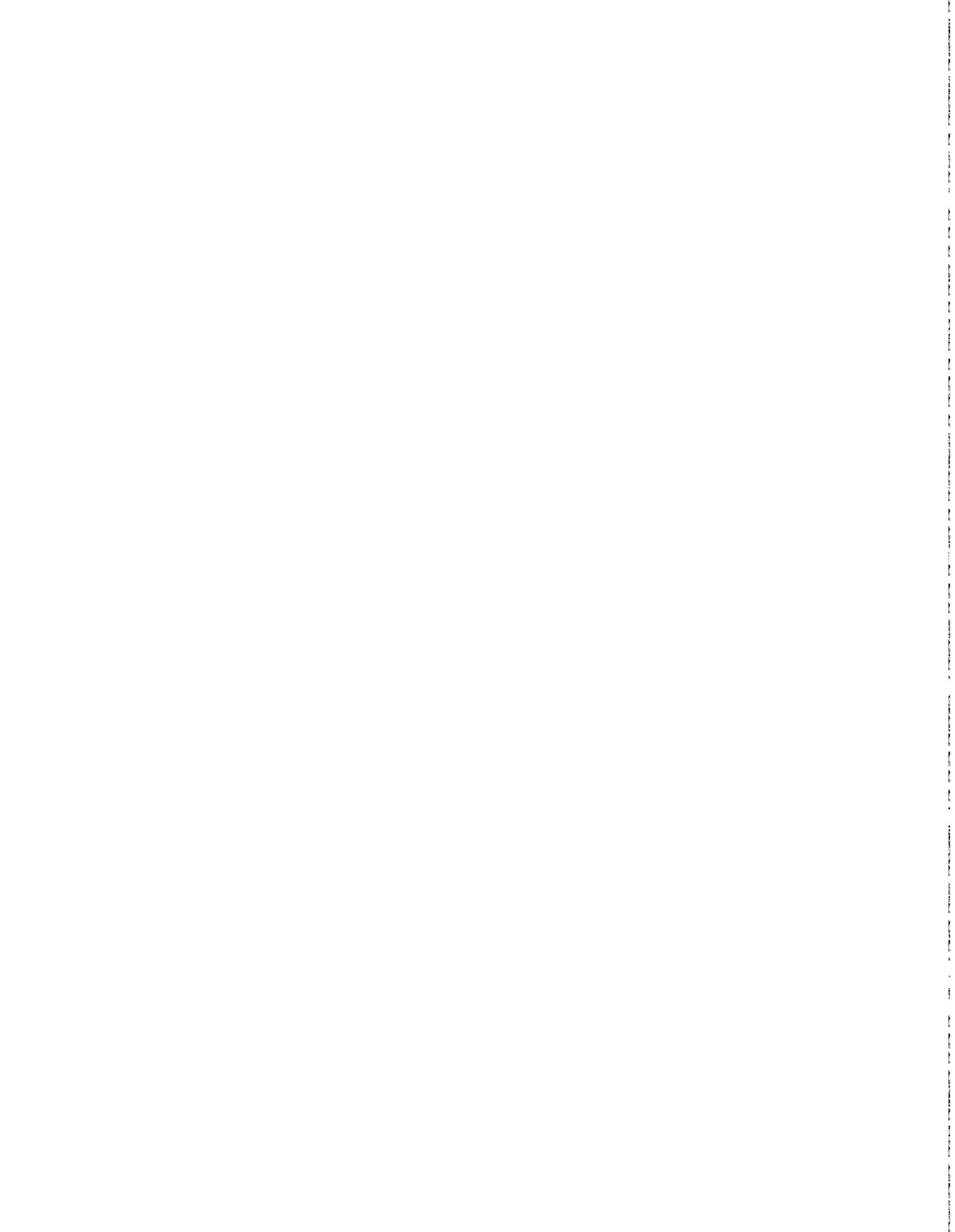
**GENERAL-PURPOSE  
COSTING SYSTEMS**

The ICC uses general-purpose costs as a regulatory device to estimate the variable costs that are used in certain specific regulatory applications. For example, the ICC has regulatory jurisdiction only over traffic whose tariff rates, compared on a percentage basis with the carrying railroad's variable cost for the traffic, exceed a statutory threshold. The statute requires the use of a GPCS to calculate variable costs.

GPCS may be used to estimate elements of movement costs in other proceedings, such as those involving maximum rate, competitive access, abandonment, and surcharge, when more detailed approaches are not cost-justified.

For GPCS, reported expenses are related to reported output by applying regression equations (such as those used in RFA and the URCS). Those expenses, in aggregate, reconcile to reported operating expense determined using generally accepted accounting principles (GAAP). However, a cost-of-capital amount is computed and included using estimated rates of variability.

The variable costs are then used to compute the variable unit costs of output. These variable unit costs are multiplied by the appropriate measures of output (called "service units") for the movements involved.





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# CHAPTER 1

## Railroad Accounting Principles

This chapter contains the eight Railroad Accounting Principles established by the RAPB. It divides the Principles into two categories: general and specific.

The general Principles, in order of consideration, are

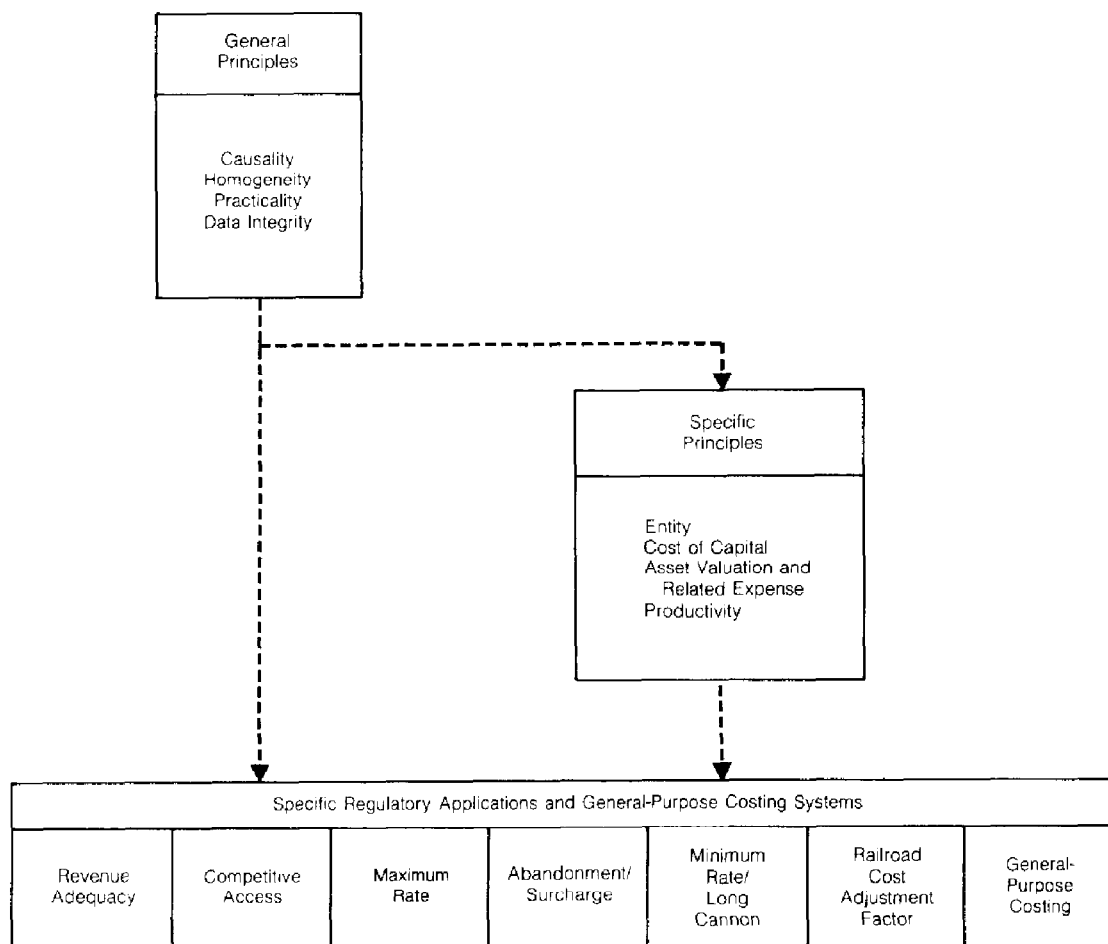
- Causality,
- Homogeneity,
- Practicality, and
- Data Integrity.

The specific Principles are

- Entity,
- Cost of Capital,
- Asset Valuation and Related Expense, and
- Productivity.

Applications of the general and specific Principles to all regulatory cost determinations considered by the RAPB are illustrated in Figure 1. However, all specific regulatory cost applications identified may not be described in the discussion of each Principle, since a Principle may not have a significant or discernible effect on the application being considered.

**Figure 1: Interrelationship of Railroad Accounting Principles and Regulatory Applications**



The Principles are interrelated. Those interrelationships should be considered because, in certain instances, applying the Principles individually could lead to contradictory results.

For each Principle, the discussion contains a statement of the Principle, a brief explanation of the Principle, and a description linking the Principle to the various regulatory applications to which it may apply.

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# CAUSALITY

## STATEMENT OF PRINCIPLE

Costs shall only be attributed to cost objectives when a causal relationship exists (the cost would not have been incurred but for the requirements of the cost objective). A cost objective is the result of the use of resources. It can take many forms, depending on the purpose for which the cost information is needed.

Existence of a causal relationship may be established through direct observation, engineering analysis, and/or statistical techniques.

For each regulatory application, the costs must represent the time orientation relevant to the particular application. These time orientations may represent past or future, and short-run, intermediate-run, or long-run.

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## EXPLANATION

The Causality Principle states that attributable costs are those costs that were caused by or were the result of the productive activities undertaken.

One significant factor differentiating the specific regulatory applications is time orientation (i.e., past or future, and short-run, intermediate-run, or long-run).

The Causality Principle is used to identify the costs required for the activity that is the subject of each regulatory application.

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## APPLICATION

### Revenue Adequacy

The current ICC policy for revenue adequacy compares the return on investment of the regulated entity (as provided by the Entity Principle) with returns from other investments available in the financial markets for the same time period. Thus, the nominal cost-of-capital rate must correspond to the same time period for which the return on investment for the entity is measured.

### Maximum Rate

When the stand-alone costing concept is used in maximum rate proceedings, costs used should be directly attributable to the entity representing the hypothetical competitor. The time

orientation is the period of time that the hypothetical competitor would expect to retain its traffic.

**Competitive Access**

Competitive access may be granted for varying periods of time (including perpetuity). Therefore, to the extent costs are a factor, the incremental costs of the railroad granting access to or performing services for a competing railroad over the relevant time period are the appropriate costs. However, other factors may be considered by the ICC in evaluating competitive access issues.

**Abandonment/  
Surcharge**

Relevant costs are those that can be avoided by eliminating a branch line, including the opportunity cost associated with maintaining service on the line.

Information (including cost) is used to estimate and compare the cash flows resulting from continuing service with those of discontinuing service. Such comparisons should be made for identical time periods.

**Minimum Rate/Long-  
Cannon Factor**

Relevant costs are those that would be avoided if the movements did not take place. Such costs should be determined by analyzing the time period during which the service is to take place and the best alternative use for the assets used in the movement.

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**GENERAL-PURPOSE  
COSTING SYSTEMS**

Causality for specific movement costs in GPCS may be established by relying on estimates of changes in total costs (or portions thereof) which occur in the same manner as changes in output. Such cost variability is normally estimated through the use of a statistical technique known as regression analysis.

Three criteria should be used to establish variability relationships through regression analysis: (1) logical explanation of a causal relationship between expense and output, (2) results that are statistically significant, and (3) judgment and experience in interpreting the results of the analysis.

The relevant time period for GPCS is an intermediate term, i.e., one that recognizes some variability in capacity costs.

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# HOMOGENEITY

## STATEMENT OF PRINCIPLE

Cost information shall be organized into homogeneous cost pools. A homogeneous cost pool is a group of costs which are governed by essentially the same set of determinants and which respond to changes in output in essentially an identical manner.

Some homogeneous cost pools may consist of costs of interchangeable resources. Resources are considered interchangeable if they can be substituted for one another without loss of efficiency. In any such case, the costs of the resources shall be assigned to cost objectives on the basis of the average cost of the interchangeable resources.

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## EXPLANATION

Homogeneity provides guidance on the level of detailed cost information that is required for estimating costs accurately. Specific price information is neither necessary nor desirable for every unit to be costed. Furthermore, the selection of one interchangeable resource rather than another is a function of chance and does not indicate, per se, a causal relationship with output.

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## APPLICATION

### Maximum Rate and Competitive Access

Cost information shall be determined and assigned directly to the hypothetical competitor or the party seeking access.

### Abandonment/ Surcharge

The branch line serves as a cost objective, with its costs directly collected. However, because costs of moving traffic off branch may be interchangeable (homogeneous) with costs of moving other railroad traffic, average variable costs should be used for the off-branch portion of the abandonment or surcharge costs.

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## GENERAL-PURPOSE COSTING SYSTEMS

For GPCS, various expenses (or groups of expenses) for the entire entity may be considered interchangeable. As an example, such expenses may include fuel, compensation for labor (by function), and car ownership and maintenance (for specific car types).

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# **PRACTICALITY**

## **STATEMENT OF PRINCIPLE**

Cost and related information shall be feasible to obtain, efficiently determined, and material in amount. To be feasible, information must be physically possible to obtain at an acceptable level of accuracy. To be efficiently determined, information must generate benefits that exceed the costs of providing it. To be material in amount, information must have such a bearing on the issue at hand that its absence would lead to a significantly different outcome.

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## **EXPLANATION**

The Practicality Principle provides limited flexibility in applying the Railroad Accounting Principles so that, if approved by the ICC, a less expensive method may be used to estimate costs when the results are not significantly different than would have been achieved through strict conformance with the Principles.

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## **APPLICATION**

### **Revenue Adequacy**

Revenue adequacy requirements may be satisfied through the use of condensed supplemental schedules, rather than through a requirement for full, consolidated reporting.

Despite the theoretical attractiveness of using the current market value of assets with a real cost-of-capital rate, the use of historical cost for assets and a nominal cost-of-capital rate is more practical because of (1) the difficulties of accurately measuring and removing the inflation component from the nominal cost-of-capital rate and (2) the great amount of judgment required to implement the process by which the historical costs of assets for an entire railroad entity are restated.

The Entity Principle requires segregation and separate reporting of railroad-related activities and nonrailroad-related activities of affiliated railroads and their railroad-related affiliates. However, when it is impractical to segregate information about the railroad-related activities from information about the nonrailroad-related activities of affiliates, the affiliates should be included or excluded in total on the basis of whether the affiliate is or is not predominantly railroad-related.

**Abandonment/  
Surcharge**

For practical considerations, information (including cost information) used in cash flow analysis may be limited to single-year estimates when the effect of cost incurrence and avoidance occur uniformly over time. When the effects are estimated to change significantly in subsequent time periods, a method must be selected which recognizes the time value of money, such as a discounted cash flow approach.

**All Other Applications**

General-purpose costing may be used to estimate certain costs (such as off-branch costs) or certain components of costs (such as locomotive repairs or administrative overhead costs) if the costs are not materially different from those that could have been obtained through more detailed and specific studies.

Because general-purpose costs relate to the intermediate-run, they may be used in various regulatory applications. Elements of general-purpose costs may be used in estimating either the long-run or short-run costs.

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**GENERAL-PURPOSE  
COSTING SYSTEMS**

Since the purposes for which general-purpose costing is used are limited, the considerable additional cost of more detailed reporting may outweigh the benefit of increasing accuracy. Therefore, periodic, but not annual, review may be required to determine whether additional detail is needed.

The present quantity and diversity of Class I railroads reporting to the ICC appears to provide adequate data for general-purpose costing. Therefore, additional reporting (such as geographic cost pools or more frequent reporting) does not appear to be justified at this time. Additional reporting requirements may become justified, however, if the number of reporting railroads decreases to such an extent that the level of statistical confidence is unacceptable, the costs of gathering such information decrease substantially, or the regulatory uses for general-purpose costing increase.

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# DATA INTEGRITY

## STATEMENT OF PRINCIPLE

Cost and related information should be valid, accurate, and verifiable. To be valid, information must represent what it purports to represent. To be accurate, information must be free from significant error and conform to applicable standards. To be verifiable, historical cost information must be supported by underlying source records; judgmental information must include the factors supporting the judgment.

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## EXPLANATION

The Data Integrity Principle may require that information regularly reported to or used by the ICC shall be reviewed to ensure its verifiability, accuracy, and validity. The information submitted in adversarial proceedings before the ICC may be analyzed by the parties using discovery and rebuttal procedures to determine its accuracy and validity. In determining accuracy, specific standards, such as ICC regulations, may apply.

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## APPLICATION

### Revenue Adequacy

The ICC requires that an independent public accountant submit a report filed as part of the Railroad Annual Report Form R-1 (R-1) to ensure the integrity of the information reported to the ICC. The independent public accountant should comply with Statements on Auditing Standards (SAS) No. 35 and the American Institute of Certified Public Accountants (AICPA) *Statement on Standards for Attestation Engagements* (and/or their successor pronouncements) regarding reports prepared using agreed-upon procedures.

### All Other Applications

In general, to assist in verification for each proceeding, the data presented must

- disclose all key assumptions, methodologies, and allocations used, and the support for them;
- explain the relevance of the data to, and assumptions used in, the issues; and
- identify the data sources used.



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**GENERAL-PURPOSE  
COSTING SYSTEMS**

As with the revenue adequacy application, the ICC requires that an independent public accountant submit a report filed as part of the annual R-1 to ensure the integrity of the key financial and operating information reported to the ICC. The accountant should comply with SAS No. 35 and the AICPA *Statement on Standards for Attestation Engagements* (and successor pronouncements) regarding reports prepared using agreed-upon procedures.

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## **ENTITY**

### **STATEMENT OF PRINCIPLE**

The railroad entity shall comprise the activities of affiliated railroads and their railroad-related affiliates. Affiliation is defined in conformance with generally accepted accounting principles.

The railroad entity shall measure and report information about railroad-related activities in conformance with generally accepted accounting principles, unless otherwise provided by specific Railroad Accounting Principles. Railroad-related activities are those provided in support of railroad operations. When nonrailroad-related activities are included in the entity, they shall be segregated and the information reported separately.

Any railroad-related transaction between the railroad entity and others (including affiliates that are not railroad-related), or any reclassification between railroad-related and nonrailroad-related status within the entity, shall be recorded at the fair market value at the time of the transaction or reclassification. Railroad-related gain or loss shall be recognized at the same time.

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### **EXPLANATION**

This Principle provides the framework for determining the activities and related transactions to which the Railroad Accounting Principles apply. Regulatory purposes, and therefore the Entity Principle, only require information about railroad-related activities, although the railroad entity may provide additional information.

The determination of how to include the railroad-related activities shall be made in accordance with the Data Integrity and Practicality Principles. Certain nonrailroad-related activities may be included in the entity for data integrity reasons. The nonrailroad-related (nonoperating) activities of a railroad may be segregated and reported using procedures such as those prescribed by the ICC.

When it is not practical to segregate the railroad-related from nonrailroad-related activities of an affiliate, the entire affiliate should be either included or excluded on the basis of whether it is predominantly railroad related or not. An affiliate is any party (including the subsidiaries) that directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with a railroad. It is predominantly railroad

related if it could not continue to exist but for the revenue derived from or the support provided for railroad operations.

This Principle is not intended as a vehicle for increasing asset values through repetitive transactions between related parties.

The recognition of gain on reclassification does not violate GAAP, so long as the gain on intercompany transactions is eliminated from the consolidated financial statements of the GAAP reporting entity. The RAPB believes that this requirement is necessary to measure accurately the economic effects that could have been achieved if only railroad-related activities were included in the entity.

To conform with the Causality and Homogeneity Principles, entities for specific regulatory purposes may be smaller than the railroad entity as a whole.

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## **APPLICATION**

### **Revenue Adequacy**

The entity for determining the revenue adequacy of the railroad enterprise as a whole is the combination of activities of affiliated railroads and their railroad-related affiliates.

To measure the revenue adequacy of the railroad entity, financial reporting must identify both the assets used in railroad-related activities and the revenues and expenses that result from their use. This reporting requirement can be met with the filing of a condensed, combined balance sheet and condensed statement of operations. It need not include additional detailed statistics and other information included in the R-1.

To portray accurately the economic effect on the railroad entity, transactions with all related parties outside the railroad entity should be at fair market value. The resulting gains and losses shall be included in measurements of return on investment for revenue adequacy purposes.

### **Maximum Rate**

When stand-alone cost is used in maximum rate proceedings, the entity comprises activities associated with the transportation network required by the hypothetical new competitor to serve its designated customers.

### **Competitive Access**

For incremental competitive access costs, the entity comprises activities and facilities of one railroad for which another railroad is seeking use.

**Abandonment/  
Surcharge**

The entity comprises the activities associated with trackage and related assets (hereinafter referred to as the branch line) for which the abandonment or surcharge is sought and that part of the railroad entity affected by those activities.

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**GENERAL-PURPOSE  
COSTING SYSTEMS**

For GPCS, the entity comprises the activities associated with homogeneous railroad operations. Under current circumstances, the Practicality Principle permits a railroad to continue using the existing reporting entity.

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# **COST OF CAPITAL**

## **STATEMENT OF PRINCIPLE**

The cost-of-capital rate shall be a weighted average computed using the proportions of debt and equity as determined by their market values and their current market rates.

The current market rate shall be the nominal rate of return required by investors in railroad enterprises in the relevant period.

A nominal rate is a rate that includes the effects of inflation.

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## **EXPLANATION**

The cost-of-capital rate is an annual percentage rate that represents the return required to attract and retain capital in amounts adequate to provide a sound rail transportation system in the United States.

The cost-of-capital rate shall be an industry-wide rate or an individual rate, depending on the specific regulatory application, determined in accordance with the Causality and Practicality Principles.

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## **APPLICATION**

### **Revenue Adequacy**

The nominal industry-wide cost-of-capital rate generally is appropriate to determine the revenue adequacy of individual railroad entities.

### **Maximum Rate**

The nominal cost-of-capital rate should reflect the risk to the hypothetical competitor. This rate may be either the individual cost-of-capital rate relevant to the hypothetical competitor or, for practicality reasons, the industry-wide rate for railroads.

### **Competitive Access**

The nominal cost-of-capital rate may be either the industry-wide rate for railroads or the individual cost-of-capital rate of the incumbent entity.

### **Abandonment/ Surcharge**

A nominal cost-of-capital rate, either industry-wide or individual, should be used to estimate the railroad's opportunity cost of

capital. The opportunity cost represents the return that could have been earned if the branch line had been liquidated and the proceeds reinvested in another activity chosen by the railroad.

Because a current nominal rate is used in conjunction with a current market value asset base, year-to-year changes in the market value of branch-line assets should be included as capital gains (or losses) in the earnings generated from continuing operations.

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## **GENERAL-PURPOSE COSTING SYSTEMS**

While the current nominal cost-of-capital rate is appropriate for determining general-purpose costs, the Interstate Commerce Act specifies use of the embedded cost of debt in certain situations for which GPCS may be used. Therefore, legislation may be needed to permit use of the economically more accurate nominal cost-of-capital rate in those situations.

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# **ASSET VALUATION AND RELATED EXPENSE**

## **STATEMENT OF PRINCIPLE**

Assets shall be valued at either the value of the resources forgone by the entity to acquire the assets (GAAP cost) or at the current market value, depending on the regulatory applications. The method for valuing assets in each application shall be determined by the Causality Principle.

Where the GAAP cost reasonably cannot be viewed as a meaningful regulatory measure of value, other measures of value may be used.

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## **EXPLANATION**

Resources are obtained by sacrificing other resources. This sacrifice represents the measure of the entity's cost to be used in determining the net investment base and corresponding expense for each regulatory application. Consistent with the Causality Principle, the time orientation (past or future) for measuring asset value will differ for different applications. Consistent with the Practicality Principle, less accurate estimates for asset valuation may be acceptable.

Other measures of value (e.g., predecessor cost) may be used to cover situations in which GAAP cost is not a meaningful regulatory measure of value, such as when inappropriate values result from dispositions and acquisitions of assets or through the structuring of transactions.

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## **APPLICATION**

### **Revenue Adequacy**

GAAP cost should be used to report asset values and related expense for determining revenue adequacy. However, alternative measures of value (e.g., predecessor cost or a modification) may be used if the ICC determines that GAAP cost does not produce meaningful regulatory results in certain situations. Other measures may be more appropriate when GAAP cost is either depressed or overvalued from the underlying economic value as a result of government action or regulatory policy.

For each railroad entity, the net investment base for computing return on investment is the net investment in railroad-related

assets less its related deferred tax credit balance. This reduction recognizes that deferred tax credits represent capital provided at zero cost. The net investment base serves as the denominator in computing the return on investment earned for debtholders and shareholders.

The RAPB has concluded that depreciation accounting is more economically accurate than retirement-replacement-betterment accounting. It received comments questioning an implementation issue: the fairness of permitting expenses to be recognized twice for regulatory purposes. The ICC should review this question (with public participation by all interested parties) and determine the appropriateness of this approach or an alternative.

**Maximum Rate**

If stand-alone cost is used, the asset valuation should be current market value, excluding special entry and exit barrier costs, at the time of entry of the hypothetical new competitor.

Stand-alone cost for the hypothetical competitor generally should be measured by the projected annual after-tax cash flow that, when discounted using the nominal cost-of-capital rate, equals the asset value at the time of entry. Depreciation and deferred taxes are noncash expenses and, therefore, would not be deducted from gross cash receipts in the annual cash flow computation.

**Competitive Access**

For competitive access costs, the asset valuation should be the current competitive market value of the incremental assets required for providing joint use with, or service by, the incumbent railroad.

**Abandonment/  
Surcharge**

Because the relevant costs are opportunity costs, the asset cost should be determined using current market value. However, under the Practicality Principle, assets and corresponding expenses not specifically identifiable with the line segment subject to the abandonment or surcharge may be valued at acquisition cost less accumulated depreciation.

**Minimum Rate/Long-  
Cannon Factor**

Assets are valued at opportunity cost. However, under the Causality Principle, when a movement uses short-run idle capacity, those assets are valued at zero cost.

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**GENERAL-PURPOSE  
COSTING SYSTEMS**

The annual asset costs should be determined using depreciation accounting. GPCS may use GAAP for reasons of practicality. However, more meaningful measures of value may be preferred and used for specific regulatory purposes.



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# PRODUCTIVITY

## STATEMENT OF PRINCIPLE

To measure cost changes accurately, indices used for railroad regulatory purposes shall incorporate changes in productivity as well as changes in input prices.

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## EXPLANATION

The total change in cost from one period to another occurs due to (1) changes in output from a base level (output change), (2) changes in the prices of goods and services used to produce the output (input price change), and (3) changes in the consumption of goods and services required to produce each unit of output (productivity change).

Productivity change is computed by dividing the change in a measure of output from one period to another by the accompanying change in input. It should measure the long-term trend in productivity.

Exclusion of a productivity component in cost indices implicitly measures productivity change as zero. Inclusion of an appropriate productivity component leads to greater economic accuracy in the long term than measuring productivity as zero.

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## APPLICATION

### Maximum Rate, Competitive Access, and Abandonment/Surcharge

When indices of changes in cost are used, they should include an appropriate measure of productivity changes. The productivity measure may be either a national average or an individual measurement. The appropriate measure, based on the integrity of the information furnished by the parties in the proceeding, should be decided by the ICC.

### Rail Cost Adjustment Factor

The RAPB believes that an appropriate productivity adjustment is necessary for the RCAF to measure cost changes accurately and that the ICC should implement an appropriate productivity adjustment to the RCAF.

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## GENERAL-PURPOSE COSTING SYSTEMS

When indices of changes in cost are used, they should include an appropriate measure of productivity changes. The productivity

measures should reflect the change in productivity of the individual cost elements associated with the rail movements as closely as is practicable. The appropriate measure, based on the integrity of the information furnished by the parties in the proceeding, should be decided by the ICC.

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# CHAPTER 2

## Effects of Principles on Specific Regulatory Applications and General-Purpose Costing Systems

This chapter illustrates the combined effects of the Principles on each of the regulatory applications and on GPCS. While the preceding chapter was organized by principle, this chapter is organized by application, including general-purpose costing, with references to the appropriate Principles.

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### SPECIFIC REGULATORY APPLICATIONS

#### Revenue Adequacy

The ICC has established that a railroad has adequate revenue to cover expenses and attract capital when its return on investment equals or exceeds the cost-of-capital rate.

The appropriate railroad entity for the financial reporting used to determine return on investment is the combination of affiliated railroads and their railroad-related affiliates. The objective is to measure all of the revenues, expenses, and assets as a single unit for the railroad-related portion of complex conglomerate organizations (Entity Principle). The determination of how to report the activities of specific affiliated companies may be affected by the Practicality Principle.

To account properly for transactions with affiliated nonrailroad-related organizations and to prevent distortion of the return earned by the railroad-related entity on its investment, transactions with all parties outside the railroad entity must be recorded at fair market value. For example, if a railroad's parent

corporation owns 75 percent of a fiber optics company and the fiber optics company receives an easement from the railroad to use the railroad's right of way for its fiber optics lines, the granting of the easement must be recorded at fair market value in the financial statements of the railroad entity (Entity Principle).

Income and the net investment base are the two components of return on investment. Income should be prepared in accordance with GAAP except for one departure, the reporting for less than a fully consolidated entity. The net investment base should consist of railroad-related net plant and equipment assets on a GAAP basis less cumulative deferred tax credits; and the working capital component of the investment base should be developed using a formula to determine the railroad-related portion (Asset Valuation and Related Expense, Entity, and Practicality Principles).

The cost-of-capital rate generally shall be a nominal industry-wide rate calculated using current market rates for debt and equity. The current market rate to be used for comparison is the rate of return required by investors in railroad enterprises during the time period for which the return on investment is calculated (Causality Principle). For example, a return on investment calculation based on 1984 results should be compared with a cost-of-capital rate determined for 1984. The weighting for debt and equity components of the rate shall be based on the proportional market values of debt and equity (Cost of Capital Principle).

The cost-of-capital rate should be the industry-wide rate, except where a railroad is shown to face materially different economic circumstances (beyond the control of railroad management) than those of the industry. In such cases, the cost-of-capital rate should be an individual cost-of-capital rate, if practical.

## **Maximum Rate**

The ICC is empowered to determine rate reasonableness. In the past, the ICC has used measures utilizing variable or fully allocated costs, among other factors, to establish reasonable rates. Presently, the ICC has determined that, for cases involving large movements of coal, stand-alone costs are appropriate to determine simulated competitive market prices. The ICC has proposed the use of different methodologies to approximate the competitive market prices for other traffic.

Stand-alone costs are those that a hypothetical new competitor would incur (excluding any special entry or exit barrier costs) over the period during which the hypothetical competitor would provide the needed service. The costs can be established either through use of engineering costs of new facilities and/or through observation of the cost behavior of existing facilities. For

example, crew wages for a hypothetical competitor could be established by either detailed identification of crew requirements and the rate of pay for each position or by the current cost incurred by the existing carrier (Causality and Practicality Principles).

In preparing stand-alone costs, three major capital cost elements must be calculated: (1) assets must be valued at the current market value at the time of entry, (2) the annual return of and return on assets should be determined by estimating the annual after-tax cash flows that, when discounted using the appropriate after-tax nominal cost-of-capital rate, recover the original asset value, and (3) the financial risk of the hypothetical new competitor should be represented by the cost-of-capital rate employed, although the nationally determined rate may be used if a more specific rate is impractical to calculate (Cost of Capital and Practicality Principles).

While a discounted cash flow approach is preferable in most cases, other approaches may be used if they provide for recovery of all costs that would be incurred by the hypothetical new competitor, including a return of and return on investment commensurate with the hypothetical competitor's financial risk.

The *Railroad Accounting Principles* apply to any of the costing methods selected by the ICC for maximum rate purposes. As most non-stand-alone-cost alternatives proposed to the ICC consist of variations or adjustments to costs derived from GPCS, the Principles do not require a separate explanation regarding their application to GPCS when used in maximum rate cases. A description of the Principles' application to GPCS is contained in the last section of this chapter.

## **Competitive Access**

The Causality Principle led the RAPB to address only incremental costs, those costs that could have been avoided by the railroad providing access had competitive access not been granted. Competitive access costs should be sensitive to the time period for which access is granted. When long-run access is granted, costs should include the incremental capital costs associated with the provision of the facilities required for access. Direct observation of the incremental costs for the portion of the railroad for which competitive access is sought is preferred (Causality and Homogeneity Principles). GPCS components may be used if the costs obtained are expected to be substantially the same as those obtained from direct observation (Homogeneity and Practicality Principles).

Railroads must value assets used in providing competitive access at current market values (Practicality and Asset Valuation and Related Expense Principles). The railroad whose facilities are

used for access should apply its nominal individual cost-of-capital rate. However, if the computation of a railroad-specific cost-of-capital rate is impractical, the railroad may apply the industry-wide rate (Cost of Capital Principle).

### **Abandonment/ Surcharge**

The appropriate costs to be considered in abandonment and surcharge applications are those costs (net of revenues) that could be avoided by eliminating the branch line. To the extent practical, costs that are incurred on the branch line should be identified by direct observation (Causality Principle). Costs which could be avoided by elimination of branch-line traffic, but which are incurred off the branch line, generally can be estimated using average variable costs from GPCS (Homogeneity Principle). Cost projections may be limited to one-year estimates when the effects are not expected to vary significantly from year to year (Practicality Principle).

Costs should include opportunity costs, the alternative return that could have been earned by liquidating the branch line and reinvesting the proceeds elsewhere. These costs are calculated by applying either the industry-wide or individual nominal cost-of-capital rate to the current market value less applicable disposal costs (net liquidation value) of the assets employed in the branch line (Asset Valuation and Related Expense Principle). They include changes in asset values expected in the forthcoming year as capital gains (or losses) to determine the net income generated from continuing operations on the branch line and avoid double counting the effects of inflation (Cost of Capital and Causality Principles).

### **Minimum Rate/Long- Cannon Factor**

The relevant costs are those which are avoidable if the traffic subject to minimum rate considerations does not move (Causality Principle).

Components of GPCS may be used in lieu of more detailed costs if the resulting estimates would not be materially different from the more detailed costs (Practicality Principle).

Capital costs are determined on the basis of

- the time period during which the traffic is expected to move and
- the best alternative use for the assets used in carrying the traffic.

For example, the relevant costs for traffic that moves for two weeks and uses idle capacity are those costs which could be avoided in two weeks. Thus, in this example, costs for minimum rate/Long-Cannon purposes would not include capital costs. On the other hand, costs for traffic which would be expected to

move for ten years (for example, under contract) would include capital costs (Causality Principle).

### **Rail Cost Adjustment Factor**

The RAPB believes an appropriate productivity adjustment is necessary for the RCAF to measure cost changes accurately.

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### **GENERAL-PURPOSE COSTING SYSTEMS**

General-purpose costs are average variable costs which have an intermediate time orientation. Such costs typically include as variable costs a portion of capacity-related capital costs (Causality Principle).

GPCS use variability to measure the changes in cost that occur in response to changes in output.

Intermediate-run variability is estimated using regression analyses, with the regression analyses being reviewed and tested periodically by the ICC to keep them current since changes may occur in technology, techniques, and cost behavior over time. The review of the regression equations should include public participation through a formal process (Data Integrity Principle).

The RAPB considered four methods of determining variable cost: cost elasticity, cost coefficients, and two methods of percent variable. It recommends use of the cost elasticity method. Either the cost elasticity or cost coefficient method estimates accurately how costs change with respect to changes in output (Causality Principle). The RAPB has rejected use of the cost coefficient method for practicality reasons, due to its incompatibility with RFA and the URCS. The percent variable methods are acceptable for use with linear regression equations, as they produce results similar to those of the cost elasticity method. However, the RAPB prefers the cost elasticity method because the percent variable methods do not measure accurately how costs change with respect to output changes in nonlinear equations.

Continued testing should include alternative regression equation forms and independent variables, even though they may not presently be in use. Three criteria should be used to select regression equations: (1) a logical explanation of causal relationships, (2) results that are statistically significant using current econometric techniques, and (3) judgment and experience necessary to interpret the analysis (Causality Principle).

The expense information shall conform to GAAP and be collected in sufficient detail to identify homogeneous cost pools for regression analysis, with the following exceptions:

- The income tax provision is not used.
- The variable portion of total expense is identified using regression analysis, with only the variable portion of expense allocated or assigned to service units.
- The current cost-of-capital component is added as an expense item.
- GAAP cost may be used by GPCS for reasons of practicality. However, more meaningful measures of value may be preferred and used for specific regulatory purposes.

When indices of cost changes are used to update unit costs from one year to a more current year, indices should include an appropriate adjustment for productivity (Productivity Principle).

Theoretically, the entity for GPCS shall be the same as the entity for revenue adequacy (Entity Principle). However, the present R-1 reporting entity may continue to be permitted (Practicality and Homogeneity Principles).

Because significant research has identified traffic density as a causal factor for determining certain railroad costs, the RAPB recommends that the ICC conduct additional statistical research to measure the effect of traffic density on costs (Causality, Homogeneity, and Practicality Principles). The RAPB has considered two proposals for measuring this effect: (1) collection of certain costs and outputs by geographic cost centers and (2) statistical techniques.

The additional expense of reporting geographic cost center information is not justified at this time. However, should the number of Class I railroads decrease significantly due to consolidations, geographic cost centers might become necessary.

Some independent research also suggests that alternative statistical methods for measuring the effects of density on cost may yield more accurate cost information.

Consequently, the ICC also should investigate the accuracy of these methods for possible future regulatory use. In doing so, the ICC should test alternative regression equation forms and alternative independent variables as well as analyze the most appropriate method of variable unit cost determination.

To maintain current information, the ICC should periodically review GPCS for potential updating through a process permitting all interested parties to participate.



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# CHAPTER 3

## Effects of Principles on Existing ICC Practices

This chapter summarizes changes in certain existing ICC practices which will result from implementing the proposed Railroad Accounting Principles. It outlines the changes below in two categories: (1) changes affecting all regulatory applications in which the affected information is used and (2) changes affecting only certain specific regulatory applications. This chapter also contains administrative recommendations to the ICC.

### **Recommendation**

The Congress should monitor implementation of the Railroad Accounting Principles. Within two years after the date of this report and annually thereafter, the ICC should report to the Congress on the status of implementing the Railroad Accounting Principles.

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### **ALL REGULATORY APPLICATIONS**

#### **Data Integrity**

Information used for regulatory purposes shall be supported by sufficient information to be verified. In the case of regularly reported information, the ICC currently requires reports from independent accountants.

### **Recommendation**

The ICC should require independent accountants to comply with SAS No. 35 and the AICPA *Statement on Standards For Attestation Engagements* (and/or their successor pronouncements) when preparing reports using agreed-upon procedures.

### **Entity**

Information about railroad-related activities of affiliated railroads and their railroad-related affiliates is to be segregated and reported separately from information about nonrailroad-related activities in (1) financial and operating reports to the ICC and (2) costing for regulatory purposes. However, costing information for railroad-related activities of affiliates need not be at the same level of detail as the information reported for railroads in the entity. Specifically, information concerning any transactions with parties outside the railroad entity and any reclassifications between railroad-related and nonrailroad-related status will be recorded at fair market value. Present ICC practice: (1) excludes railroad-related affiliates not directly owned by the railroads, (2) requires 50 percent or greater ownership to establish control, (3) uses a different test for determining whether an affiliate is predominantly railroad related, and (4) does not recognize gain or loss in railroad operating income from sale or reclassification of railroad operating assets.

### **Recommendation**

To the extent the ICC is unable to obtain financial reporting for all railroad-related activities of railroad-related affiliates as described by the Entity Principle, transactions between the railroads and their railroad-related affiliates shall be recorded at fair market value in the same manner as between the railroad entity and other parties.

### **Productivity**

An appropriate productivity adjustment is to be included in all input price indices designed to measure economically accurate cost changes. Currently, only unadjusted price indices are used.

### **Recommendation**

Within 18 months the ICC should implement, after study and public participation, an appropriate productivity measure in indices which measure cost changes.

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## **SPECIFIC REGULATORY APPLICATIONS**

### **Revenue Adequacy**

Net investment in assets is to be determined according to GAAP using depreciation accounting, unless the ICC determines that GAAP cost cannot be viewed as a meaningful measure of value. Currently, certain assets of some railroads are valued at predecessor cost even if their values have been restated for GAAP purposes due to mergers or acquisitions.

### **Maximum Rate**

In computing stand-alone costs, the preferred approach is a discounted cash flow analysis for the life of the services provided by the hypothetical competitor. Although no specific ICC costing guidelines exist for these applications, accrual accounting methods for a single year have been accepted in past cases as reasonable approximations.

### **Competitive Access**

Where costs are a factor, incremental competitive access costs should be consistent with the time period for which access is granted. For long-run access, incremental capital costs of the facilities used, based on current market valuation of assets and application of nominal cost-of-capital rates, should be included. Currently, the ICC has no established cost guidelines for competitive access costs.

### **Abandonment/ Surcharge**

The nominal cost of capital is to be used for computing the opportunity cost for a branch line. This approach requires that holding gains (or losses) from retaining the line in service be estimated and included in income. Current practice is to use a real cost-of-capital rate and ignore holding gains. Also, estimates of future costs should be used. Current practice is to use several years' historical cost for determining avoidable cost.

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## **GENERAL-PURPOSE COSTING SYSTEMS**

While more meaningful measures of value may be preferred for specific regulatory purposes, the net investment base used for GPCS is to be the same as the net investment base used for revenue adequacy. Currently, it is calculated using retirement-replacement-betterment-based investment in assets with no adjustment for deferred tax credits.

A market cost-of-capital rate should be used in place of the embedded cost-of-debt rate currently required by statute. Even though the use of the embedded debt rate for capital cost calculations is required in certain situations by existing law, the market cost-of-capital rate is a more economically accurate measure. Therefore, the Congress may wish to consider amending 49 U.S.C. 10709(d)(1)(A) to repeal the required use of the embedded cost of debt in those situations.

The RAPB has determined that cost variability should be measured by individual railroad cost elasticities. Currently, the ICC uses national cost elasticities in RFA.

### **Recommendation**

While the URCS is a positive step toward developing economically accurate GPCS, the ICC, with appropriate public participation, should further study the following areas and others it may identify:

- Testing of alternative regression equation forms (linear and nonlinear) and alternative independent variables.
- Testing of both size and density independent variables for significance, rather than relying on size deflation.

Implementation of the URCS should be deferred (for a maximum of 18 months) until the studies and analysis of related public comments have been completed. Productivity adjustments for URCS, however, should be developed and implemented as soon as possible.

### **Recommendation**

GPCS should be reviewed not less than every three years for potential updating through a process permitting all interested parties to participate.

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**STATEMENTS OF  
INDIVIDUAL  
BOARD MEMBERS**

Statement of Chairman Charles A. Bowsher and Members  
Charles W. Bath, Jack L. Mahaffey, Merton J. Peck,  
Gordon Shillinglaw, and Ronald S. Young

The Board initially proposed in its Exposure Draft that acquisition cost be used to value assets. In its Final Report, the Board established that GAAP cost be used to value assets. The Board reconsidered its asset valuation approach after considering comments that acquisition cost is not appropriate for poolings. The Board also considered comments favoring predecessor cost.

By requiring GAAP cost, assets acquired by purchase or reorganization are revalued at current market value; assets involved in a pooling retain the net book value of the pooling entities. However, the Board recognized that under certain circumstances GAAP cost may not be appropriate and, therefore, provided for the ICC to use other measures, including predecessor cost, as determined on a case-by-case basis.

We believe that the final report adequately explains the Board's position on the asset valuation issue. During the Board's deliberations over two years, the arguments of all interested parties regarding asset valuation--including all of those raised in Mr. Briggs' separate statement--were presented to and carefully considered by the Board. The significant issues are discussed in detail in Volume 2, Chapter 7 of this report. It is our view that the language in the chapter explains the permissiveness and need in certain instances to use predecessor cost to value assets for regulatory use. The Asset Valuation and Related Expense Principle would not materially alter the ICC's present practice on asset valuation: following GAAP whenever possible, with application of the predecessor cost concept being the exception to the rule.

Throughout its deliberations, the Board has recognized that no single principle can be viewed in isolation from the other principles or from their collective use in the various regulatory costing applications. For example, the Board adopted competitive market asset valuation--GAAP cost--consistent with competitive market cost-of-capital rates adopted by the Board and used by the ICC. In our opinion, the Board has established a set of interrelated accounting principles which lead to consistent and practical applications in determining railroad costs.

Separate Statement of Richard E. Briggs  
Member, Railroad Accounting Principles Board

The final report of the RAPB represents a comprehensive review of a myriad of complicated and frequently technical cost accounting issues related to the Federal system of economic regulation of railroad activities. Some of those issues have been debated for decades without total resolution.

To obtain a broad basis for its deliberations, the Board solicited comments from railroads, shippers, government agencies, economists, accountants and other interested parties on three separate occasions, reviewed a welter of ICC proceedings and conducted some special studies. In the main, the principles, recommendations and observations presented in the final report should materially improve the cost accounting theories applied by the Interstate Commerce Commission (ICC) and enhance their economic accuracy. These advances should imbue future decisions of the ICC with greater credibility and integrity.

While not every member of the Board concurred in each principle or recommendation, there was general consensus in numerous areas. The other members of the Board are to be applauded for the diligence, perspective and expertise they rendered.

There are two plausible sides to some of the issues the Board addressed and ultimate resolution of these issues can properly be left to the ICC. My main point of departure from the final report concerns the decision not to prefer, as a matter of principle, the use of predecessor costs for the valuation of assets in revenue adequacy determinations.<sup>1/</sup> True, the report allows the ICC considerable leeway in the future to use predecessor costs where the ICC finds that the use of predecessor costs is preferable for reasons of economic accuracy or for other regulatory policy reasons. Nevertheless, it is extremely unwise for the Board to adopt its asset valuation principle for revenue adequacy, even on a contingent basis.

<sup>1/</sup> These comments should not be construed as my endorsement of all the remaining portions of the final report. The Board's interpretation of its scope of authority, for example, seems to me to be overly expansive, particularly with respect to revenue adequacy.

To my knowledge, the Commission's practice of using predecessor costs for valuing assets in revenue adequacy determinations had never been a major point of contention until the RAPB's Exposure Draft. None of the original submissions to the Board directed attention to this subject in any depth. None of the existing regulatory agencies uses such a practice.

The Board's Exposure Draft elicited substantial evidence in opposition to the Board's principle from railroads, the Department of Transportation, economists and some other interests. In truth, no other basic recommendation by the Board drew as much opposition and so little support. Under these circumstances, the Board's novel departure warrants very close scrutiny.

Within the strictures of this statement, it is not possible to present the substantial arguments on this question in great detail. Those points are covered in depth in the responses to the Exposure Draft and will be explored by the ICC in formal proceedings. In brief, however, this RAPB recommendation, whatever its accounting symmetry, represents unsound regulatory and economic policy. If applied by the ICC, this change from normal regulatory practice could lead to extremely undesirable results for shippers and railroads alike.

Potential acquirers of marginal railroads would face more stringent limitations on their future earnings on purchased assets -- a fact that would depress the assets' sale value and further reduce their earnings potential. Moreover, a purchase of a marginal company will permanently excuse that company's shippers from having to pay for the assets written down as a result of the purchase. As a result, "fire-sale" prices will be locked into the regulatory structure and there will be no opportunity for either the new or old owners to recapture the value of "prudent" investments as there is today under common regulatory practice. The inevitable result would be the diminution of available railroad assets and services.

Contrary to the GAAP notion of comparability, railroads which are not the subject of future purchases will have the same type of assets measured on a different basis (original cost). Nevertheless, those companies may well be disadvantaged by the rates of recently acquired rail competitors which would be artificially constrained by the Board's methodology.



The Board recommendation is, moreover, a double-edged sword. If the purchased railroad is financially strong, continued inflation will have driven the current values of its assets well above the depreciated original costs of its long-lived investments. The acquisition price will, therefore, be higher and the new owner would have the ability to raise rail rates to higher levels than would be allowed under current ICC practice. Shippers which have paid once for the impact of inflation could then be called on to pay twice for the same escalation in values. This is the same type of double count for inflation which the Board assiduously avoided in its pronouncements on abandonment and cost of capital questions.

Establishing the values of a rail company on the basis of investor judgments introduces the element of regulatory circularity which has been disapproved previously by the Supreme Court. See FPC v. Hope Natural Gas Co. - 320 U.S. 591, 601 (1944). While the Board recognized the existence of this problem in its deliberations, it underestimated its potential on this issue. Indeed, an essential predicate of the Board's position on this question appears to be that the effect of regulation on railroad earnings is immaterial. But if this were the case, the Board's efforts would also be immaterial -- there would have been no need for its long struggle to establish coherent regulatory accounting principles. In fact, this essential predicate is missing; regulation continues to have a very material effect on railroad earnings.

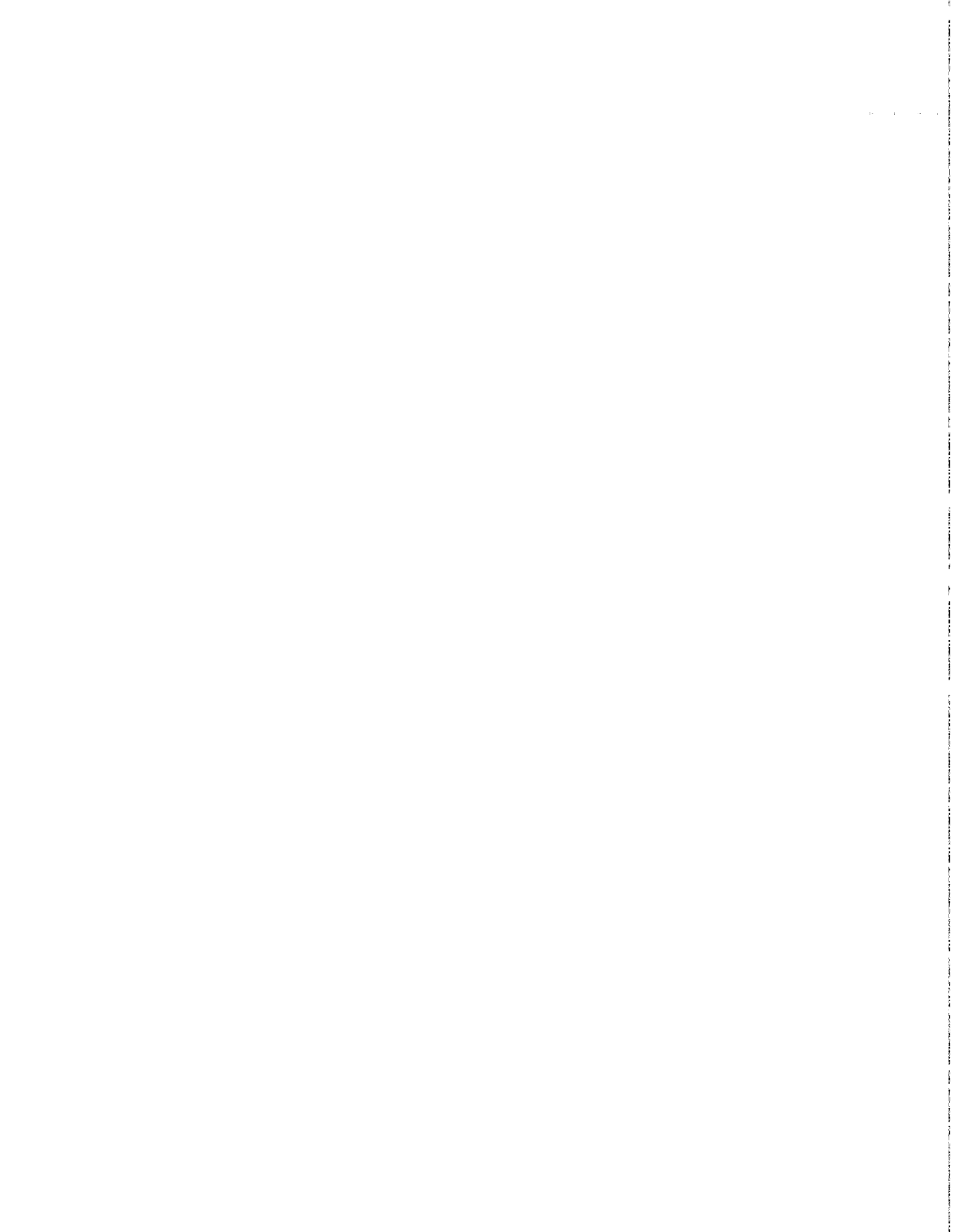
Regulatory policies govern such factors as rates, entry and exit, interchange of freight cars, mergers, loss and damage, contract requirements, labor costs and trackage rights. Adverse policies can have a huge impact on railroad earnings. In their reach, these regulatory controls affect far more than the 10 to 20 percent of rail traffic which is subject to maximum rate regulation. If those policies force a railroad's earnings significantly below the current cost of capital, then the value of that company will shrink. If a purchase then takes place, the lower acquisition cost will reduce the carrier's investment base, reduce its expenses because of lower depreciation and, correspondingly, increase its income. The more constricting the regulatory policy, the more likely it is that the carrier will be adjudged revenue adequate -- unless bankruptcy overtakes it first.<sup>2/</sup> This circularity can be avoided by using either historic or replacement costs as the Board did in other areas.

<sup>2/</sup> This threat is hardly an idle one. If acquisition costs were used several years ago, it would have made the Boston & Maine, one of the nation's weakest railroads, the railroad with the highest rate of return.

The same artificial impairment would occur if competitive, rather than regulatory, pressures resulted in depressed earnings that were reflected in a lower acquisition price. If future competitive pressures lessened or the demand for rail service improved, the Board's principle would permanently cap maximum earnings below the levels necessary to provide a reasonable return on their original cost or on the current values of those individual investments.

Under either scenario, the vicissitudes of acquisition pricing would be omnipresent and contrary to the Board's causality principles. Values of rail properties have varied by as much as 50 percent in the space of only several years as the result of shifting winds on Wall Street without any significant long-term changes in the railroad industry or its markets. These prices -- whether high or low -- would be permanently ingrained into the regulatory system.

The Board's final report will allow the ICC to avoid these pitfalls and continue use of predecessor costs. However, the potential problems outlined herein could have been avoided had the Board rejected the endless entanglements inherent in its principle.



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