OIL PIPELINE REGULATION: HAS THE FERC FINALLY SLAIN THE MINOTAUR?

*Leonard L. Coburn**

For fourteen years the oil pipeline industry has wandered in the labyrinth, paying its homage in the form of endless litigation to the bloodthirsty Minotaur.[1] The way out was blocked by the ill-considered Opinion 154 and the D.C. Circuit Court of Appeals.[2] With the issuance of Opinion 154-B on June 28, 1985, the Federal Energy Regulatory Commission (FERC) has cast itself as Theseus, the slayer of the Minotaur, who escaped from the labyrinth and ended the annual sacrifices.[3] The questions analyzed in this article are whether Opinion 154-B really is the weapon that will slay the Minotaur of litigation and whether the FERC has found the right path out of the labyrinth.

I. OPINION 154-B

Opinion 154-B was issued in response to the D.C. Circuit Court of Appeals' remand and mandate to reconsider the issues and publish an opinion within one year.[4] In issuing Opinion 154-B, the FERC again has laid out its views on how to regulate the oil pipeline industry, this time in sixteen pages rather than 394 pages.[5]

Following the lead of the D.C. Circuit Court of Appeals, the FERC adopted a cost-based methodology for establishing rates.[6] It did not settle upon a pure original cost (OC) methodology. Rather, the FERC opted for a trended original cost (TOC) methodology. In addition, it postponed its treatment of the rate of return appropriate for each pipeline to case-specific examinations of each pipeline system. It also indicated how to determine a pipeline's capital structure and how to treat taxes, relying upon the normalization methodology for accelerated tax depreciation. A substantial portion of the opinion is devoted to the rate base methodology, discussing it generally, mechanically, and transitionally. The opinion also deals with capital structure, rate of return, taxes, and other matters.

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*A.B. Cornell University, J.D. Northwestern University School of Law; Member, D.C. and Illinois Bars; Director, Office of Competition, U.S. Department of Energy. The views expressed herein are solely the author's and do not reflect the views of the Department of Energy.

[1]This proceeding began in 1971 when William Brothers Pipe Line Company, now Williams Pipe Line Company, filed new rates for pipeline transportation through its midcontinent pipeline system and the rates were challenged at the ICC by a group of shippers. The procedural history is detailed in Coburn, *Farmers Union II: Sisyphus Starts up the Hill Again*, 5 *ENERGY L.J.* 309 (1984), and O'Neill and Knapp, *Oil pipeline Regulation After Williams: Does the End Justify the Means?*, 4 *ENERGY L.J.* 61 (1983).

[2]Williams Pipe Line Company, No. OR79-1-000 [hereinafter cited as Op. No. 154], 21 F.E.R.C. ¶ 61,260 at 61,568 (1982), *reh'g denied*, 22 F.E.R.C. ¶ 61,086 at 61,133 (1983); Farmers Union Central Exchange, Inc., v. FERC, 734 F.2d 1486 (D.C. Cir. 1984), *cert. denied sub nom.*, Williams Pipe Line Co. v. Farmers Union Cent. Exchange, Inc., 105 S.Ct. 507 (1984) [hereinafter cited as Farmers II].

[3]Williams Pipe Line Company, Nos. OR79-1-000 & 022 (Phase I), Opinion No. 154-B, 31 F.E.R.C. ¶ 61,377 at 61,831 (1985).

[4]"FERC already has the benefit of an extensive record and should be able to issue a new order within the next twelve months." *Farmers II*, 734 F.2d at 1530.

[5]The slip opinion in Opinion No. 154 ran 394 pages. By its admission, Opinion No. 154 was ". . . the longest and the most elaborate that the Commission has ever issued. . . ." News Release accompanying issuance of Opinion No. 154, p. 6 (November 30, 1982).

[6]31 F.E.R.C. at 61,832; *Farmers II* at 1530.

A. Rate Base-General

The FERC emphasizes throughout its discussion about the rate base that it is adopting a cost-based rate base. It begins its discussion of the general rate base reasserting this proposition.[7] A footnote at the outset of this discussion reaffirms its use of the rate base on a system-wide basis.[8] The FERC contemplates that any new assets to the pipeline system will be added at original cost and then trended into the future.[9] It notes that it must deal with existing assets and defers that discussion to a separate section, which will be followed here as well.

Opinion 154-B states that TOC and OC are similar except for the treatment of inflation, with TOC making the adjustment in the rate base, while OC makes the adjustment in the rate of return.[10] The FERC relies on the United States Department of Justice (Justice) when the FERC states that TOC results in the same discounted value of earnings stream as does OC; that is, the net present value of both is zero.[11] The FERC concludes that since both methodologies rely on OC and both yield the same net present value, TOC is an acceptable cost-based alternative to OC.[12]

Even though OC and TOC are functionally equivalent except for the treatment of inflation, the FERC prefers TOC because TOC will help newer pipelines with higher rate bases compete with older pipelines with lower rate bases and with other modes of transportation, citing Dr. Stewart Myers.[13] Additionally, the FERC states that TOC mitigates the front end load problem. The FERC's earlier Opinion 154 dwelt on the front end load problem and concluded that TOC was preferable to OC, but that the valuation methodology avoided the problem altogether.[14] As a result, the FERC reaffirms what it said in Opinion 154; however, it goes on to discuss the problem again.[15]

The front end load problem arises with OC methodologies because in the first year the rates are based on the full value of the assets. In each ensuing year, rates are based on the asset value less depreciation. As Table IV indicates, rates are highest in year one and lowest at the end of the asset's life. This is not a particularly serious problem if the pipeline has no competition from any other transportation or from older pipelines. But if there is competition, then the newer pipeline may not be able to recover its full earnings in the early years. Since the rate base continues to decline, there is no way to recoup the lost early-year earnings in later years. As a result, a pipeline could lose substantial earnings. With TOC, the rate base increases during the early years. Cash flow initially starts at a lower point than with OC. The pipeline can defer some early year earnings and recoup them in later years. Thus, FERC says

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[7]31 F.E.R.C. at 61,833.

[8]*Id.* n.18.

[9]*Id.*

[10]*Id.* at 61,834.

[11]*Id.*

[12]*Id.* at 61,835.

[13]*Id.* Dr. Stewart C. Myers appeared as expert witness on behalf of Marathon Pipe Line Company. His testimony set out the principles for using TOC. *See* Exhibit 21-1 and Myers, Kolbe, and Tye, *Inflation and Rate of Return Regulation,* 2 RESEARCH IN TRANS. ECON. 83 (1985)(forthcoming).

[14]Op. No. 154, 21 F.E.R.C. at 61,628-30.

[15]31 F.E.R.C. at 61,834-35.

that a newer pipeline can recoup these earnings as inflation increases the rates of the newer pipeline's competition.[16] Therefore, with TOC there is less of a front end penalty.

Citing Dr. Myers, the FERC concludes that with TOC, the time pattern for the recovery of the cost of equity comes closer to duplicating the pricing in unregulated enterprises.[17] Because of TOC's flatter time pattern, ratepayers are treated more equitably over time (intergenerational equity). All this means is that ratepayers in the early years pay about the same as ratepayers in later years. With OC, early year ratepayers pay much more in rates while ratepayers in later years pay much less. OC causes much more intergenerational inequity.

FERC defers the question of what inflation index to use.[18] The FERC deflects Justice's concern by saying that as long as the rate base is trended by some inflation index it is merely a mechanical procedure to determine which one. This search for the appropriate rate base index is deferred to the case-specific proceedings.

Finally, the FERC decides that it is only fair to trend the equity portion of the rate base and not the debt portion so that the equity holder will not benefit from a write-up of the rate base with respect to assets financed by debt.[19] After all, reasons the FERC, if the imbedded cost of debt is used and then trended, the pipeline's owners are being compensated twice for inflation, once in the imbedded cost of debt and once again by trending those assets by an inflation factor.

B. Rate Base-Mechanics

The Commission then goes into a rather elaborate discussion of the mechanics of TOC so that anyone not familiar with its operation can see how it works.[20] (See the Appendix for specific examples of how TOC operates based upon Opinion 154-B and Dr. Stewart Myers' testimony.)

Essentially, with TOC, the inflation component is put into the rate base rather than put into the rate of return. With OC, the rate base is a pure net depreciated original cost. That is, the original cost of the asset is depreciated on a straight line basis so that the rate base declines over the life of the asset. With TOC, the rate base is increased by the amount of inflation, while it also is depreciated over time (the depreciation also is inflated by the inflation component). This results in a rate base that increases during the initial years of the asset and eventually turns downward until the asset is totally depreciated. (In the Appendix, Table III demonstrates the time path of the two rate bases.) With TOC, the rate of return is only the real rate of return, that is, all inflation is removed. In OC, the rate of return includes both a real rate and inflation.

C. Rate Base-Transition

The starting rate base is an important element in the transition from the present methodology to the new methodology. Depending on how the new rate base

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[16]*Id.* at 61,835.
[17]*Id.*
[18]*Id.* at 61,834-35.
[19]*Id.* at 61,835 n.37.
[20]*Id.* at 61,833-36.

is determined can make an enormous difference to a pipeline company. The industry and Dr. Myers argued for using the most recent valuation based upon the existing methodology. Shippers and others argued that the starting rate base should be the net depreciated OC.[21]

The FERC voiced a concern about adopting either of these approaches, especially the valuation approach.[22] It worried that the valuation approach was so flawed that using the latest valuation somehow would bias future rate bases. Yet, it worried about long-term investor reliance on the valuation methodology. The Commission also was cognizant of the disruptive effects that adopting a pure depreciated OC rate base would have on the industry.

So the FERC adopted an approach that it calls a "middle ground that is fair in light of investor expectations but without perpetuating the serious flaws of the previous method."[23] The starting rate base is a hybrid. It is made up of the debt ratio times the net depreciated OC plus the equity ratio times the reproduction portion of the valuation rate base. The reproduction portion of the valuation rate base is depreciated by the same percentage that the book OC rate base has been depreciated.

The FERC views this as fair, since it incorporates a trended component in the starting rate base while it avoids the double counting inherent in trending the debt component. The FERC says that this starting rate base will more closely approximate the TOC rate base that would have existed had the ICC not written up debt. The FERC was attempting to avoid any windfalls to equity holders from the ICC's previous practice of writing up the debt component as part of the valuation methodology. The FERC leaves open to challenge by an interested party in the case-specific proceedings whether this starting rate base is fair in the context of a specific pipeline.

D. Capital Structure

The starting rate base depends upon the ratio of capital and equity in order to determine how much of the OC and reproduction cost should be allowed.[24] The FERC faces the dilemma of using the existing capital structure of the pipeline, or its parent, or some hypothetical capital structure. Borrowing from its regulation of natural gas pipelines, the FERC adopts its recently expressed policy concerning natural gasoline pipelines, namely, using actual capital structures rather than hypothetical capital structures.[25]

But this does not end the inquiry into the appropriate capital structure, since the FERC leaves open the question of whether to use the pipeline's capital structure or its parent's. The FERC indicates those situations where it may be appropriate to use the parent's capital structure: where a pipeline has no long-term debt, where a pipeline issues the long-term debt to its parent, or where a pipeline issues long-term debt guaranteed by its parent. But where a pipeline issues long-term debt not guaranteed by its parent, then the pipeline's capital structure should be used.[26]

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[21] *Id.* at 61,835.
[22] *Id.* at 61,836.
[23] *Id.*
[24] *Id.*
[25] *Id.*, (citing Arkansas Louisiana Gas Co., 31 F.E.R.C. ¶ 61,318 at 61,724 (1985).
[26] 31 F.E.R.C. at 61,836.

E. Rate of Return

After a pipeline has determined its starting rate base and the capital structure to use, the pipeline then confronts the all important issue of its rate of return. Opinion 154-B provides only general guidance in this area because the FERC has decided to leave the rate of return to case-specific proceedings.[27] Of course, the FERC will examine the risks and corresponding cost of capital and equity associated with each pipeline. The FERC does not overlook the pipeline's competitive situation, since competition will play an important role in the rate of return determination. The case-specific proceedings will be the place to examine increased risks and any non-cost factors such as investment incentives in deciding upon the rate of return. Curiously, the FERC indicates in a footnote that a pipeline can argue for additional compensation for any guarantees of the pipeline's debt.[28]

F. Taxes

The FERC also resolves how it will treat the tax question. Tax policy is important to pipelines, since it can assist in making investment decisions. Thus, accelerated depreciation has an important economic component.[29] But, accelerated depreciation for taxes causes problems for regulators. Should all the benefits of the accelerated depreciation be flowed through to the ratepayers? Should the tax benefits be kept by the investors? Or is there some other way to deal with the problem? In Opinion 154, the FERC expressed a preference for tax normalization rather than tax flowthrough, but left the ultimate choice up to the pipeline.[30] In Opinion 154-B, the FERC bit the bullet and decided that normalization and not flowthrough should prevail.[31] The FERC adopted this approach because it facilitated the comparable earnings analysis, that is, the ability to compare oil pipelines with other types of investments. The FERC reiterated one of the few elements of Opinion 154 approved by the Court, that is, that an oil pipeline must exclude all deferred tax amounts from the rate base so that the oil pipeline does not receive a rate of return on that money.[32]

G. Other Matters

The FERC dealt with a few other miscellaneous matters before concluding its brief opinion. It affirmed what it said in Opinion 154 concerning test periods,[33]

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[27]*Id.* at 61,836-37.

[28]*Id.* at 61,837 n.50.

[29]In considering the accelerated depreciation sections of the Internal Revenue Code, §§ 167, 168, Congress stated that "the faster write-off would increase available working capital and materially aid growing businesses in the financing of their expansion. For all segments of the American economy, liberalized depreciation policies should assist modernization and expansion of industrial capacity, with resulting economic growth, increased production, and a higher standard of living." *H.R. REP. NO.* 1337, 83d Cong., 2d Sess. 24 (1954); *S. REP. NO.* 1622, 83d Cong., 2d Sess. 26 (1954).

[30]Op. No. 154, 21 F.E.R.C. 61,653-57.

[31]31 F.E.R.C. at 61,837.

[32]*Id.* at 61,837 n.55.

[33]*Id.* at 61,838. In Opinion No. 154, the FERC dealt with the issues of test periods, throughput variations and developmental losses. The test period issue concerns the base or test period that the

throughput variations,[34] developmental losses,[35] holding company problems,[36] and working capital[37]. Importantly, the FERC reversed its policy with respect to oil pipeline rate fillings, so that the FERC can take a more active role with respect to rates rather than waiting for complaints to come to it.[38] Finally, the FERC dismissed the industry's request to turn this portion of the proceeding into a rulemaking proceeding, indicating that it did not think that any person's rights had been prejudiced by its action in the opinion.[39]

II. Implications of Opinion 154-B

Opinion 154-B has done little to quell the ravages of the Minotaur of litigation. The labyrinth that the oil pipeline industry has found itself in for the last fourteen years is not a thing of the past. Opinion 154-B certainly does not end the litigation. If anything, the approach taken by the FERC assures the continuation of litigation into the unforeseeable future.

A. Litigation Will Not End

There are substantial reasons for the view that litigation will not end. Most importantly, by reserving the rate of return for case-specific proceedings, the FERC has guaranteed that every pipeline will have to go through a rate of return proceeding at least once. Where there has been one generic proceeding dealing with the rate base methodology, there will be over 100 proceedings dealing with rate of

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Commission should utilize to compute operating expenses and revenues. The Commission essentially left the question unanswered by leaving it to case-specific proceedings to determine whether any base or test period was necessary. 21 F.E.R.C. at 61,658-59.

[34]31 F.E.R.C. at 61,838. The throughput variation question was stated in Opinion No. 154 as "How should the Commission take account of variations in throughput in determining whether oil pipeline rates are just and reasonable?" The Commission answered this question the same way it answered the question about test periods. 21 F.E.R.C. at 61,658-59 (footnote omitted).

[35]31 F.E.R.C. at 61,838. Opinion 154 did not explicitly state a question on developmental losses but merely lumped this issue with the two preceding issues. 21 F.E.R.C. at 61,658. It answered the issue in the same way as the test period issue.

[36]31 F.E.R.C. at 61,838. Opinion No. 154 dealt specifically with holding company problems or transactions among affiliated companies. 21 F.E.R.C. at 61,651-52. The FERC held that when transactions among affiliates were in issue, the burden of proof regarding their reasonableness and justification rests with the pipeline and not with the complainant. 21 F.E.R.C. at 61,652.

[37]31 F.E.R.C. at 61,838. Opinion No. 154 changed the treatment of working capital. 21 F.E.R.C. at 61,632, n.386. The Commission would adhere to the ICC's rule of thumb formulation if it were not challenged. If challenged, then the FERC will examine working capital needs on a case-specific approach to the issue of including working capital in the rate base. *Id.*

[38]31 F.E.R.C. at 61,838. Opinion No. 154 took a strong laissez-faire approach to the Commission's administrative duties. In Opinion No. 154 the FERC stated that it would not suspend or investigate any oil pipeline rate filing unless someone outside the FERC protested. Generally, the FERC's trial staff was admonished to refrain from participating in oil pipeline rate protests unless some special issue required participation. 21 F.E.R.C. at 61,612. Opinion 154-B removes these prohibitions so that the FERC can carry out its statutory duty. 31 F.E.R.C. at 61,838.

[39]31 F.E.R.C. at 61,838.

return issues.[40] Furthermore, the first rate of return proceedings probably will be precedent-setting proceedings. As a result, many pipelines, the Association of Oil Pipe Lines, shippers, and government agencies may determine that they must intervene in order to protect their positions.[40a] While the FERC probably will indicate that each case-specific proceeding will be determined on its own merits, astute observers know that the first proceedings will set precedents followed by other administrative law judges and the FERC itself. Thus, rather than ending the litigation, the FERC has assured that more litigation will ensue, with some of the first rate of return proceedings being large proceedings with many parties intervening to protect their rights and avoid bad precedent.

Furthermore, depending on how some issues are dealt with in the case-specific proceedings, the FERC could guarantee that rate of return proceedings will occur with some frequency or at long intervals. For example, the trended portion of the rate base must rely on an inflation rate. What inflation rate will the FERC use? If it uses one that can be determined objectively, then the need for frequent rate of return proceedings is lessened. An example of an objective inflation index is the ICC's and now the FERC's calculation for the cost of reproduction.[41] This is a continually updated index that can be applied without resort to a proceeding. Also, the real rate of return must be established. Again, the choice of the real rate of return index can determine the frequency of rate of return proceedings.

While we are on the subject of inflation and real rate of return indexes, there is a real problem regarding consistency. The FERC can apply different indexes to different pipelines if strong arguments are made that different indexes should be used. Thus, rates of return may vary based upon different indexes and, more importantly, rates may vary. In an industry faced with competition from other pipelines, this potential lack of consistency can be troublesome to competing pipelines. The FERC must make strong efforts to maintain consistency in these indexes to avoid substantial differences in rate base and rate structures.

While litigation is guaranteed concerning the rate of return proceedings, appeals have already been filed concerning Opinion 154-B.[42] The D.C. Circuit Court of Appeals will have another opportunity to examine what the FERC has done. While it is more than likely that the FERC will be upheld this time, despite its rather weak opinion, there is no guarantee that this will be the result. The D.C. Circuit Court of Appeals may be so fed up with the issue by now that it will be glad to approve the FERC's opinion and finally get rid of the case. Of course, the D.C. Circuit could feel that having invested two opinions in the issue it will want to make

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[40]The annual report on pipeline economics published by the Oil and Gas Journal lists 140 separate pipeline companies as of 1983. Pipeline Economics: *U.S. Interstate Pipeline Systems Contract in 1983 as construction costs flatten*, *OIL AND GAS JOURNAL*, November 26, 1984, at 63-92. While many of these separate companies are owned by the same parent, a strict interpretation of the system-side regulation portion of Opinion 154-B would require each pipeline company to establish its rates in a separate proceeding.

[40a] Two recent rate proceedings support this statement. In the investigation of rates filed by Kuparuk Transportation Co., Docket No. OR85-1, the AOPL and Phillips Pipe Line Co. intervened.. In the investigation of rates filed by Phillips Pipe Line Co., AOPL, Department of Justice, various shippers, ARCO Pipeline Co. and others have intervened.

[41]Dr. Myers refers to the use of the reproduction cost index in his testimony and forthcoming article. See *supra* note 13.

[42]The Oil Daily, July 2, 1985, at 2.

sure that the FERC has done its duty properly and may find that Opinion 154-B is not quite what the Court had in mind. While this is not likely to happen given the FERC's adherence to a cost-based approach, it is a possibility.

B. *The Implications of Trending Only Equity*

The FERC chose to trend only the equity portion of the rate base and not the entire rate base. This is a departure from Dr. Stewart Myers' testimony, which laid the basis for the FERC's approach.[43] The FERC chose not to trend the debt portion because it agreed with the shippers that by trending the debt component the equity holders would be getting a double dose of inflation, once in the cost of the imbedded debt and again in the trending.[44]

The FERC, unfortunately, misapprehended the TOC methodology. If the debt component is to be trended, the inflation factor must be removed from the imbedded debt before it can be trended. Just as the inflation factor is removed from the equity component before trending in order to avoid double counting of inflation, the same inflation removal must take place from the debt. If this were done, then there would be no double counting in the debt component and the entire rate base could be trended. This was the argument made by Dr. Myers, even if the testimony was not as clear on this point as it could have been.[45] Thus, the FERC fell into the fallacy of the shippers' argument without understanding the implications from only trending the equity and not the entire rate base.

Let us focus on the two extremes — all equity and all debt in the rate base. With all equity, the entire rate base is trended. With all debt, none of the rate base is trended resulting in a pure OC rate base. The higher the debt ratio in the rate base, the more the rate base approaches an OC rate base. Since many pipelines have a ten percent equity and ninety percent debt capital structure, these pipelines will have much more of an OC rate base than a trended rate base. Thus, the benefits FERC ascribes to TOC are dissipated as the debt component increases.

The FERC may have opened up the rate base to some gaming by pipelines. If a pipeline can choose the capital structure it wants, (although the FERC appears to have laid down some guidelines, the question is how strict the FERC will be in applying these guidelines), it could look at its market situation and choose the rate base which produces the highest rates. For instance, if the pipeline faces little or no competition, it could opt for a high debt structure so that it could receive the highest rates initially. Then as the rate base depletes due to the declining nature of the OC rate base, it could restructure to more of an equity rate base so that it could trend the equity portion and again receive higher rates. While the FERC did not contemplate this type of rate base gaming, the FERC will have to remain vigilant so that pipelines do not take advantage of the differences in rates due to capital structure.

C. *Old Asset Problem*

The FERC did not address the problems that occur with respect to old assets. Using either OC, or TC, or some combination of the two produces an old asset

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[43] *See supra* note 13.

[44] 31 F.E.R.C. at 61,835.

[45] *See supra* note 13. The forthcoming article is more explicit on this point.

problem. At some point, the rate base will be fully depreciated. For instance, if a thirty-year depreciation schedule were used, then after thirty years all that could be recovered would be the variable costs of the pipeline and its debt. There would be no return on equity. This creates an enormous disincentive to use old pipelines. It creates an incentive to abandon them. With many pipelines more than thirty years old, there is the potential problem of abandonment of many older pipelines. The consequences of this abandonment potentially are severe since it reduces competition, may leave various fields and markets without pipeline service, and may have severe implications for the drive to deregulate pipeline markets.[46] The FERC will have to face up to this question in its case-specific proceedings.

D. Capital Structure

The FERC addressed the capital structure, stating quite clearly its preference for using the actual capital structure of the pipeline or its parent versus a hypothetical capital structure. But this does not put to rest the capital structure question.

As indicated in the section on trending, a pipeline can try to game the situation by adopting different capital structures. Moreover, it is by no means clear in all situations whose capital structure should be used. The FERC muddied the waters when it stated that a pipeline will be permitted to argue that its parent company is entitled to compensation for any guarantees of the pipeline's debt.[47] This is a most curious statement in light of the guidelines the FERC stated in the capital structure section. There, the FERC stated that if the debt was guaranteed by the parent then the parent's capital structure should be relied upon. Investors would have taken into consideration any outstanding parent guarantees in determining the interest level of the parent's debt. If the FERC has made a decision about how to deal with guaranteed debt, then why raise the specter of additional compensation in the rate of return?

There are additional capital structure issues. What capital structure should a joint venture adopt? Should it rely upon its own capital structure? Or should it create a composite capital structure based on a weighted average of its various parents? Will it matter if the joint venture operates in competitive or noncompetitive markets? These are not easy questions, but the FERC will be confronted with them on a case-specific basis.

Finally, there appears to be a potential discrimination issue looming here. Some pipelines will have several choices for their capital structure, while others will have only one choice. Does this permit some pipelines to gain some advantage over other pipelines that have only one capital structure option?

E. What is Regulated: Systems or Companies?

An issue that seems to have been glossed over in Opinion 154-B is what is being regulated. Under the ICC approach, pipeline companies were regulated. The

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[46]A deregulation approach under consideration by the Reagan Administration would deregulate all competitive pipelines immediately and require further administrative scrutiny of potentially noncompetitive pipelines. The abandonment of pipelines may reduce competition in pipeline markets and require more pipelines to go through administrative proceedings. Remarks of Leonard L. Coburn before the Oil Pipeline Ratemaking Conference, Houston, Texas (May 15-16, 1985).

[47]31 F.E.R.C. at 61,837, n.50.

FERC said something different in Opinion 154 when it opted for a system-wide approach.[48] To make matters worse, the D.C. Circuit Court of Appeals confused the issue by upholding the FERC's decision to determine rate base on a system-wide basis, saying "we uphold FERC's continuation of the ICC's longstanding practice."[49]

In Opinion 154, the FERC continued the idea of regulating an entire system rather than regulating on a point-by-point basis or on a segment-by-segment basis. But it clearly altered previous regulation by indicating that it no longer would permit averaging of rates on an intracompany basis. Therefore, if a pipeline company has one system in California and another system in Illinois, the two systems will not be averaged. "The averaging we sanction and endorse is of an *intrasystem,* not an *intracompany,* character."[50]

So what is being regulated — systems or companies? Reading Opinion 154-B, it is by no means clear. Here is another issue that must be cleared up in the case-specific proceedings.

F. Taxes

Opinion 154-B makes it quite clear that normalization is to be used for the treatment of accelerated tax depreciation.[51] Using the normalization method, a pipeline collects more taxes from ratepayers in the early years and less in later years, as the pipeline uses the fund accumulated in the early years to pay its taxes. Thus, the pipeline has the use of a deferred tax fund for some years before it needs it. Normalization creates some intergenerational inequity as early year ratepayers pay more than later year ratepayers. But more importantly, normalization upsets the zero net present value of OC or TOC. By using normalization, a positive net present value results. But since positive net present value results with either OC or TOC, there is no inequity created by using normalization from a cost-based perspective.

G. The TAPS Problem

Opinion 154-B creates poblems for the potential settlement of the Trans-Alaska Pipeline System (TAPS).[52] During the pendency of the *Williams* proceeding, a separate proceeding was considering the appropriate rate base for the TAPS. Opinion 154 specifically excluded the TAPS; however, the FERC did return the

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[48]Op. No. 154, 21 F.E.R.C. at 61,650-51.

[49]*Farmers II* at 1529, n.79.

[50]Op. No. 154, 21 F.E.R.C. at 61,651 (emphasis in original).

[51]31 F.E.R.C. at 61,837-38.

[52]The TAPS proceeding originated at the ICC in June 1977 when the Department of Justice and the State of Alaska protested the tariffs filed by the eight TAPS owners. The ICC's suspension of the tariffs was upheld in Trans Alaska Pipeline Rate Cases, 436 U.S. 631 (1978). The ICC and then the FERC continued the proceeding resulting in an Initial Decision on February 1, 1980, 10 F.E.R.C. ¶ 63,026. Additional hearings were held in light of Opinion No. 154 at the order of the FERC to determine if the principles of Opinion No. 154 applied to the TAPS, 21 F.E.R.C. ¶ 61,092 (1982). No decision was forthcoming as a result of this hearing due to the decision in *Farmers II;* however, guidance was requested from the FERC. Trans-Alaska Pipeline Sys., 27 F.E.R.C. ¶ 63,008. In late 1984, the Department of Justice and the State of Alaska announced a settlement of the *TAPS* proceeding with ARCO Pipeline Co., one of the eight TAPS owners. Department of Justice Press Release, December 27, 1984; *ARCO Pipeline Agrees to Reduce TAPS Tariff, OIL AND GAS JOURNAL,* January 7, 1985, at 57.

TAPS case to the administrative law judge to determine whether *Williams* was applicable to the TAPS.[53]

Earlier this year the Department of Justice and the State of Alaska reached a settlement of the *TAPS* proceeding with Atlantic Richfield Company, the parent of ARCO Pipeline Company, one of the eight owners of the TAPS. Since then, five other owners have agreed to the settlement.[54] Two owners have not agreed and several shippers have objected to the settlement.[55]

The *TAPS* settlement methodology is different from the *Williams* methodology.[56] In the *TAPS* methodology, the entire rate base is trended. After 1988 an allowance of thirty-five cents per barrel is provided that also is adjusted for inflation. On a six dollar tariff this is a 6% kicker and increases as the tariff decreases over time.[57] Depreciation is calculated differently based on throughput for a year multiplied by an adjustment coefficient for that year. The coefficient is set at 100% for 1977-79, 95% for 1980, and then declines by 5% for each year through 1998, where it remains at the 5% level thereafter. These are the essentials with other elements of lesser importance.

Compared to the *Williams* methodology, the *TAPS* methodology is more generous to the owners of the TAPS and less generous to the State of Alaska and the United States.[58] Since Opinion 154-B did not specifically exclude TAPS, the

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[53]Trans Alaska Pipeline System, Nos. OR78-1-014 and OR78-1-016 (Phase I), Remand Order, 21 F.E.R.C. ¶ 61,092 at 61,285 (1982).

[54]In early May 1985, BP Proposes Pipelines Inc. agreed to join the settlement. *BP Proposes Reduction in Trans-Alaska Line Tariff*, OIL AND GAS JOURNAL, May 6, 1985, at 84. At the end of June 1985, Exxon Pipeline Company, Mobil Alaska Pipeline Company, and Union Alaska Pipeline Company joined in the settlement. Wall St. J., June 25, 1985, at 6. In July 1985, Phillips Alaska Pipeline Corporation joined the settlement. The Oil Daily, July 10, 1985 at 3. Only Amerada Hess Pipeline Corporation owning 1.5% and Sohio Pipe Line Company owning 33.3363% are not parties to the settlement.

[55]Sohio Pipe Line Company opposes the settlement because Sohio Pipe Line's affiliate, Sohio Alaska Petroleum, is a net shipper in the pipeline; that is, it ships more than its affiliate's pipeline share. As a shipper, Sohio views the settlement as unfair. Sohio Alaska Petroleum has petitioned the FERC to intervene to oppose the settlement. Another shipper, Tosco Corporation, also is petitioning to intervene. The Energy Daily, July 11, 1985, at 1 and 6. One shipper, Alaska Oil Corporation, already has been denied intervention and is appealing that denial. *Id.* at 6. Also opposing the settlement is Arctic Slope Regional Corporation.

[56]Essential Features of TAPS Tentative Settlement Agreement, attachment to Department of Justice Press Release, December 27, 1984.

[57]This 6% kicker shows a striking similarity to the 6% going concern element of the ICC's valuation methodology.

[58]It is difficult to compare the *TAPS* settlement methodology with the *Williams* methodology due to insufficient data. But a proxy may provide some comparison. The Arctic Slope Regional Commission compared the *TAPS* methodology to various others, including the methodology used in the Initial Decision by Administrative Law Judge Kane. Judge Kane used an OC methodology with no rate base trending. Most of the pipeline companies owning the TAPS have financed the TAPS with virtually all debt. If the pipeline companies' capital structures were used, the *Williams* methodology would approach an OC rate base due to the high proportion of debt. Assuming a constant throughput, some representative tariff streams in 1984 dollars produce the following:

question arises concerning the status of the settlement and the inherent inconsistency created through the use of a different methodology. If the *TAPS* settlement is approved, then a precedent is established for other pipelines to argue that something different should apply to them because of unique circumstances. Rather than settling the chaos, having two different methodologies for different pipeline systems merely adds to it.

H. Noncost Factors

In Opinion 154, the FERC relied heavily on noncost factors to justify the approach taken.[59] In Opinion 154-B, noncost factors are hardly mentioned except to indicate that the FERC will consider noncost factors in the case-specific proceedings.[60] This is an easy way to deal with the difficult questions of noncost factors raised by the D.C. Circuit Court of Appeals. Rather than trying to justify them anew, the FERC merely postponed its consideration and eliminated noncost factors from the basic cost-based methodology. This leaves the reviewing court with nothing to review on this issue, since the FERC postponed any consideration of them to the future. Here is another potential source of litigation.

III. Conclusion

The FERC hoped to slay the hungry Minotaur of litigation and leave the confusion of the labyrinth behind it by issuing Opinion 154-B. A careful examination of the opinion leaves little doubt that the Minotaur is alive and well. Litigation will ensue for years as a result of Opinion 154-B. Appeals already have been lodged. Case-specific proceedings must occur for each of the pipelines under FERC jurisdiction. The first case-specific proceedings probably will have many participants, as each attempts to protect future positions and avoid bad precedents. Many questions have been left unanswered by Opinion 154-B that must be answered in future proceedings. The FERC has not slain the Minotaur. If anything, the Minotaur of litigation once again has struck the FERC.

Year	*TAPS*	*KANE*
1978	$8.58	$6.80
1980	6.36	4.02
1985	5.31	3.01
1990	3.19	2.12
1995	1.91	1.46
2000	1.37	1.02
2005	1.31	0.76
2010	1.25	0.60

Arctic Slope Regional Commission filing in FERC Docket Nos. OR78-1-014 and OR78-1-016 (Phase I), May 1, 1985, at 17 (Figure 1). The author has not verified the Arctic Slope Regional Commission's methodology and results and is using them merely for illustrative purposes.

[59] *Farmers II* at 1502-03.

[60] 31 F.E.R.C. at 61,837.

APPENDIX
COMPARISON OF ORIGINAL COST AND TRENDED ORIGINAL COST METHODOLOGIES

The purpose of this Appendix is to explore in greater depth using mathematical examples the comparison between original cost (OC) and trended original cost (TOC) methodologies.

The numerical example is the same as the example used in Opinion No. 154-B as well as in Dr. Stewart Myers' testimony. Assume an investment of $1,000.00, an overall rate of return of 16%, with a 9% real rate of return and inflation at 7%. Also, assume straight-line depreciation over a twenty-year period.

With OC, the rate base starts at ($1,000.00 and is reduced every year by the amount of the depreciation, or $50.00 per year ($1,000.00 divided by 20 years yields $50.00). In Table I, the values are given showing a declining rate base over the twenty-year period. Table III indicates this graphically. No inflation adjustment is made in the rate base. Cash flow for OC also is a straight line declining as the rate base declines. Cash flow is simply current earnings (16% times the rate base) plus depreciation. Thus, in the first year earnings equal $160.00 and depreciation equals $50.00, generating a cash flow of $210.00. On the most simplistic basis the cash flow would approximate the rate profile in nominal dollars. Table I shows the twenty-year profile for cash flow, and Table IV shows the twenty-year profile graphically.

TOC really is no more than OC with an adjustment in the rate base for inflation. The rate base must be adjusted every year for inflation. If the inflation component is 7%, then the rate base must be increased every year by 7%. In addition, the depreciation component must be adjusted for inflation; otherwise, at the end of the twenty-year period, the rate base would not equal zero. Since the inflation adjustment is equal to a deferral of earnings as posited by the FERC or equal to a reinvestment of income as posited by Dr. Myers, the depreciation element must reflect the deferral or reinvestment adjusted for inflation. Table II shows the twenty-year profile for TOC. The rate base starts at $1,000.00. Depreciation equals $50.00 plus the level of inflation of 7%, yielding a total $53.50 for the first year. Earnings are permitted at 9% of the rate base, or $90.00. Cash flow equals earnings ($90.00) plus depreciation ($53.50) for a total of $143.50 for the first year. In the second year, the rate base is increased by the rate of inflation — $1,000.00 times 1.07 and decreased by the depreciation of $53.50. This process continues for the life of the asset. Tables III and IV show the time profiles graphically for TOC.

Tables V through VII provide graphic descriptions of three rate bases with varying capital structures. Table V indicates a 90% debt and 10% equity capital structure. Since this is almost an OC rate base because of the large component of debt, the total rate base looks very much like an OC rate base, declining steadily over the life of the assets. Table VI shows a 90% equity and 10% debt capital structure. This mix results in a rate base looking very much like a TOC rate base, increasing in the early years and declining rapidly in the later years. Finally, Table VII shows a 60% debt and 40% equity capital structure. The rate base declines rapidly due to the larger debt element; however, the decline is not quite a straight line but is bowed due to the influence of the trended equity component.

Tables VIII through X show the cash flow for the three rate bases and capital structures. Table VIII depicts a 90% debt and 10% equity capital structure and

shows the influence of the large debt component that has a cash flow declining on a straight line basis. The total of the debt and equity cash flows approaches an OC cash flow. Table IX shows the cash flow with 90% equity and 10% debt. Since cash flow with TOC increases over time, the large component of TOC equity produces a cash flow that increases over time. Finally, Table X shows the cash flow with a capital structure of 60% debt and 40% equity. Again, the influence of the larger debt component results in a cash flow that looks more like an OC than a TOC cash flow profile.

TABLE I

Rate Base and Cash Flow Using Net Original Cost[1]

Year	*Rate Base*[2]	*Depreciation*[3]	*Current Earnings*[4]	*Cash Flow*[5]
1	$1,000.00	$50.00	$160.00	$210.00
2	950.00	50.00	152.00	202.00
3	900.00	50.00	144.00	194.00
4	850.00	50.00	136.00	186.00
5	800.00	50.00	128.00	178.00
6	750.00	50.00	120.00	170.00
7	700.00	50.00	112.00	162.00
8	650.00	50.00	104.00	154.00
9	600.00	50.00	96.00	146.00
10	550.00	50.00	88.00	138.00
11	500.00	50.00	80.00	130.00
12	450.00	50.00	72.00	122.00
13	400.00	50.00	64.00	114.00
14	350.00	50.00	56.00	106.00
15	300.00	50.00	48.00	98.00
16	250.00	50.00	40.00	90.00
17	200.00	50.00	32.00	82.00
18	150.00	50.00	24.00	74.00
19	100.00	50.00	16.00	66.00
20	50.00	50.00	8.00	58.00

[1]Assumes a 9% real cost of capital and a 7% inflation premium. Assumes the investment is made at the start of Year 1, and cash flows received at the end of each year.

[2]Rate base = rate base − depreciation.

[3]Assumes 20-year straight line depreciation.

[4]Current earnings = rate base × 16%.

[5]Cash flow = Depreciation + current earnings.

TABLE II

Rate Base and Cash Flow
Using Trended Original Cost[1]

Year	*Rate Base*[2]	*Depreciation*[3]	*Current*[4] *Earnings*	*Cash Flow*[5]
1	$1,000.00	$53.50	$90.00	$143.50
2	1,016.50	57.25	91.49	148.73
3	1,030.41	61.25	92.74	153.99
4	1,041.29	65.54	93.72	159.26
5	1,048.64	70.13	94.38	164.50
6	1,051.91	75.04	94.67	169.71
7	1,050.51	80.29	94.55	174.84
8	1,043.76	85.91	93.94	179.85
9	1,030.91	91.92	92.78	184.71
10	1,011.15	98.36	91.00	189.36
11	983.58	105.24	88.52	193.76
12	947.18	112.61	85.25	197.86
13	900.88	120.49	81.08	201.57
14	843.45	128.93	75.91	204.84
15	773.56	137.95	69.62	207.57
16	689.76	147.61	62.08	209.69
17	590.43	157.94	53.14	211.08
18	473.82	169.00	42.64	211.64
19	337.99	180.83	30.42	211.25
20	180.83	193.48	16.27	209.76

[1]Assumes a 9% real cost of capital and a 7% inflation premium. Assumes the investment is made at the start of Year 1, and cash flows received at the end of each year.

[2]Rate base = [rate base (inflation)] − [depreciation (inflation)].

[3]Assumes 20-year straight line depreciation adjusted yearly for inflation.

[4]Current earnings = rate base × 16%.

[5]Cash flow = Depreciation (inflation) + current earnings.

TABLE III

Rate Base Profile for
New Original Cost and Trended Original Cost

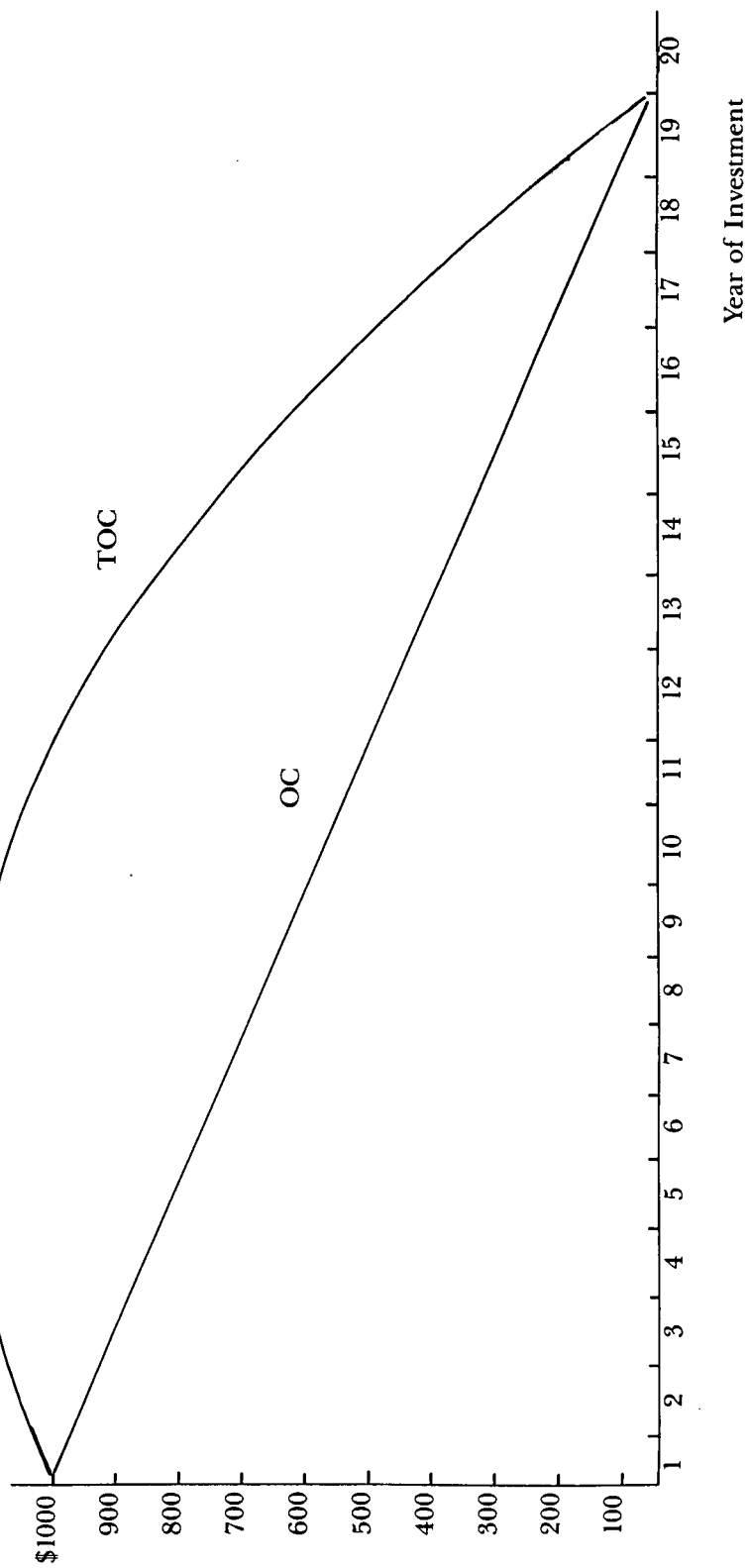


TABLE IV

Cash Flow Profile for
Net Original Cost and Trended Original Cost

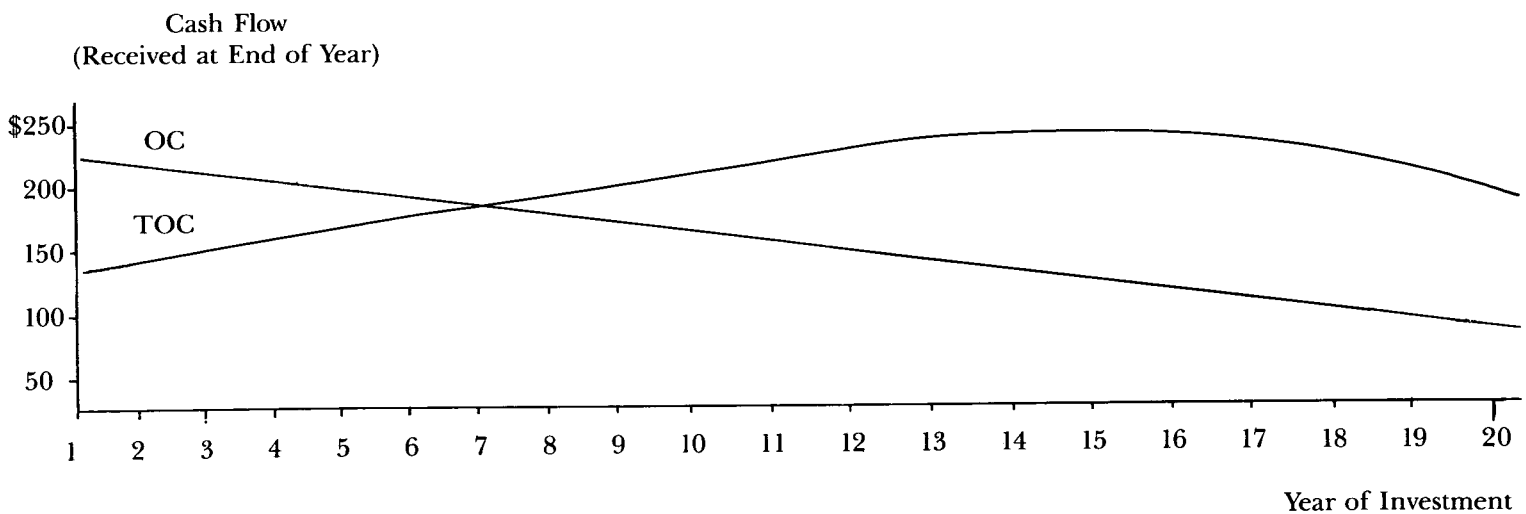
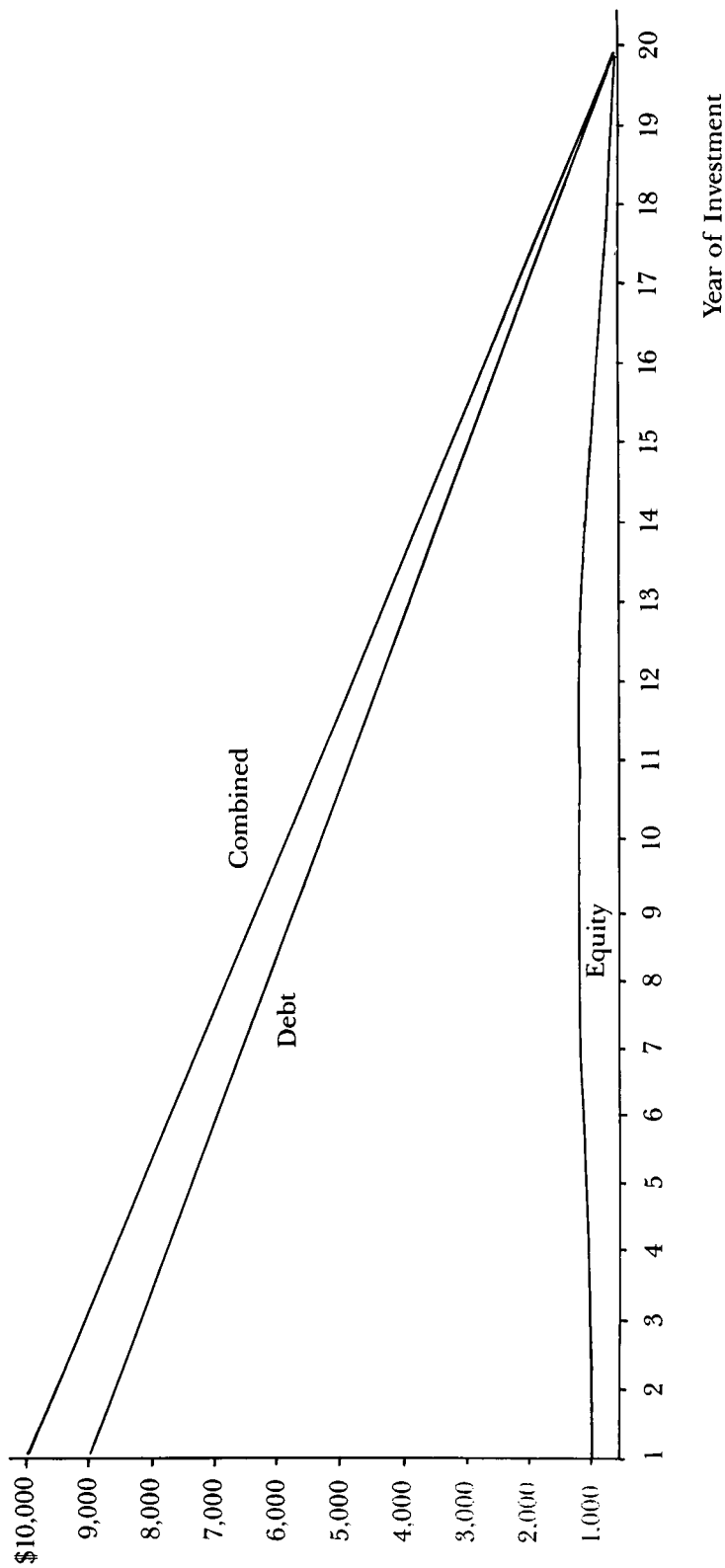


TABLE V

Rate Base for Trended Original Cost
90 Percent Debt and 10 Percent Equity



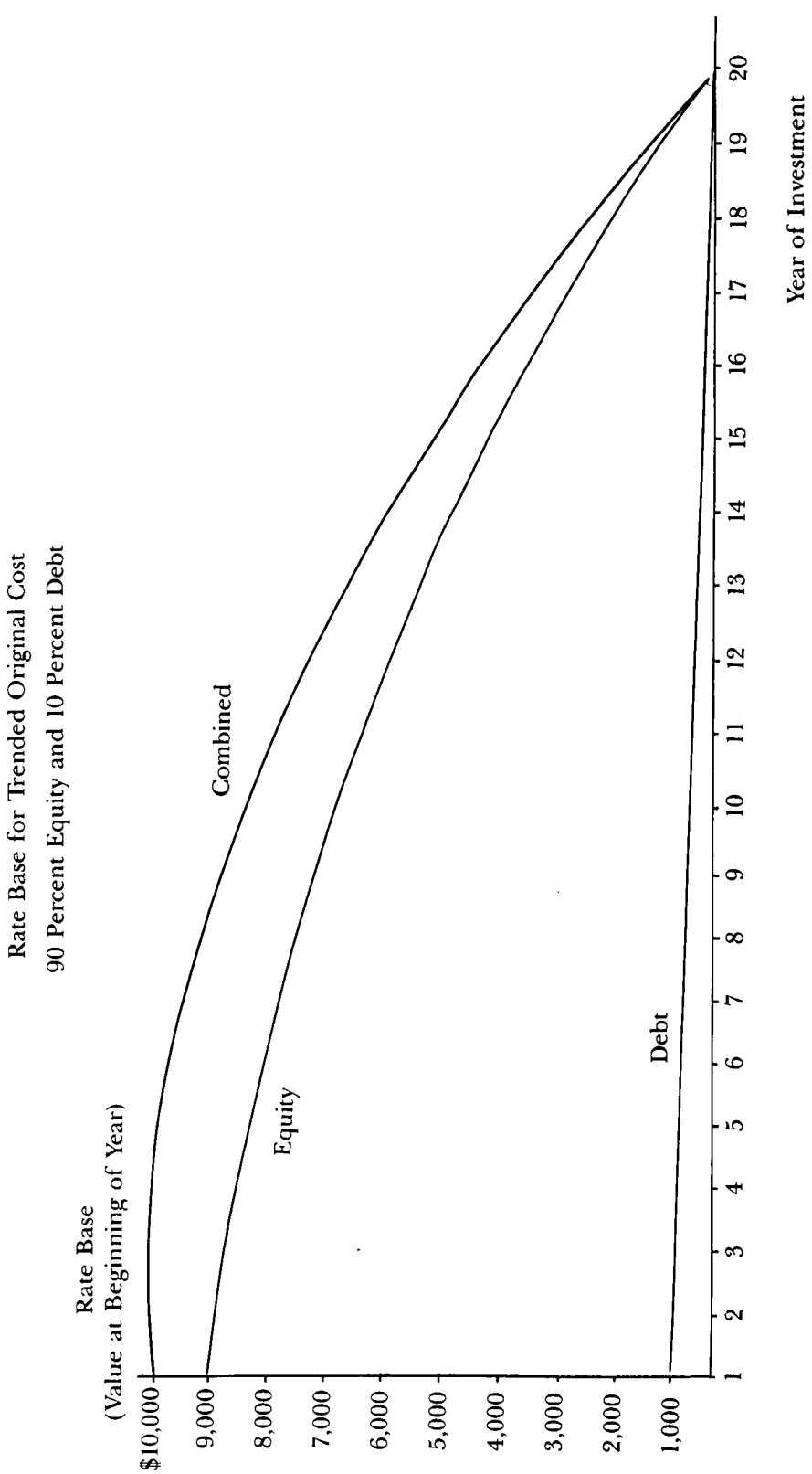

Rate Base for Trended Original Cost
90 Percent Equity and 10 Percent Debt
Rate Base
(Value at Beginning of Year)
$10,000
9,000
8,000
7,000
6,000
5,000
4,000
3,000
2,000
1,000
Combined
Equity
Debt
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
Year of Investment

TABLE VII

Rate Base for Trended Original Cost

60 Percent Debt and 40 Percent Equity

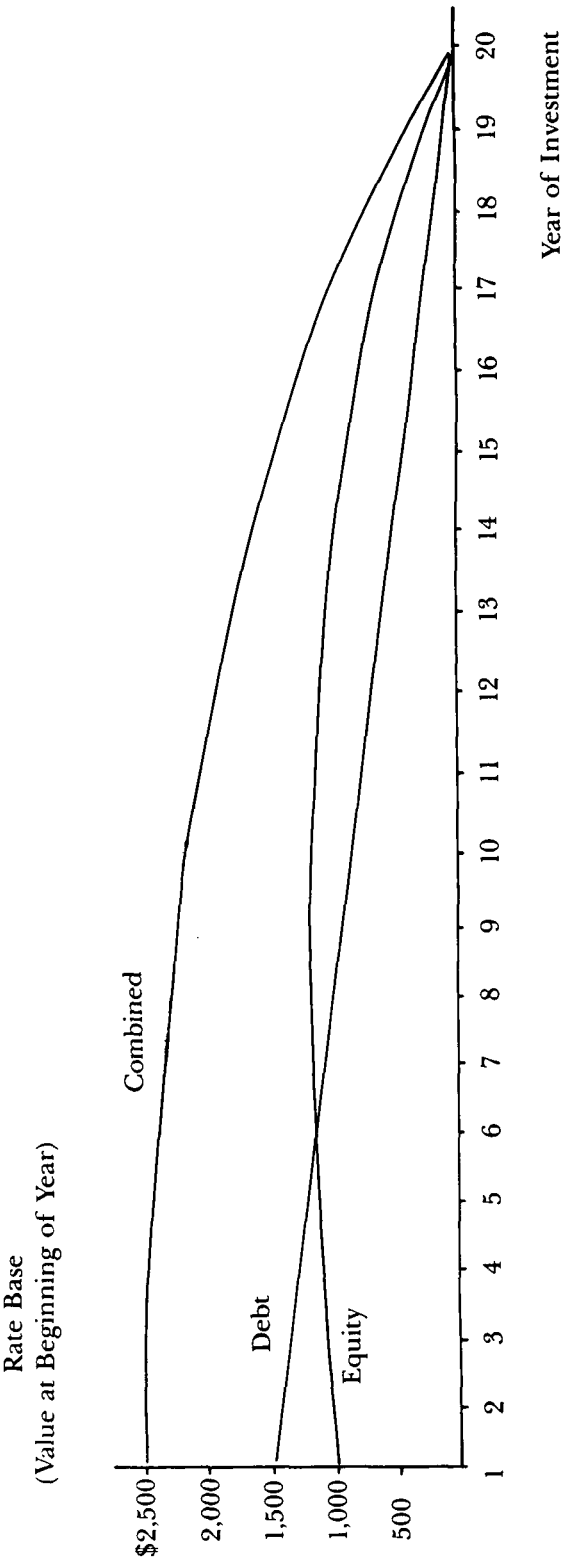


TABLE VIII

Cash Flow for Trended Original Cost

90 Percent Debt and 10 Percent Equity

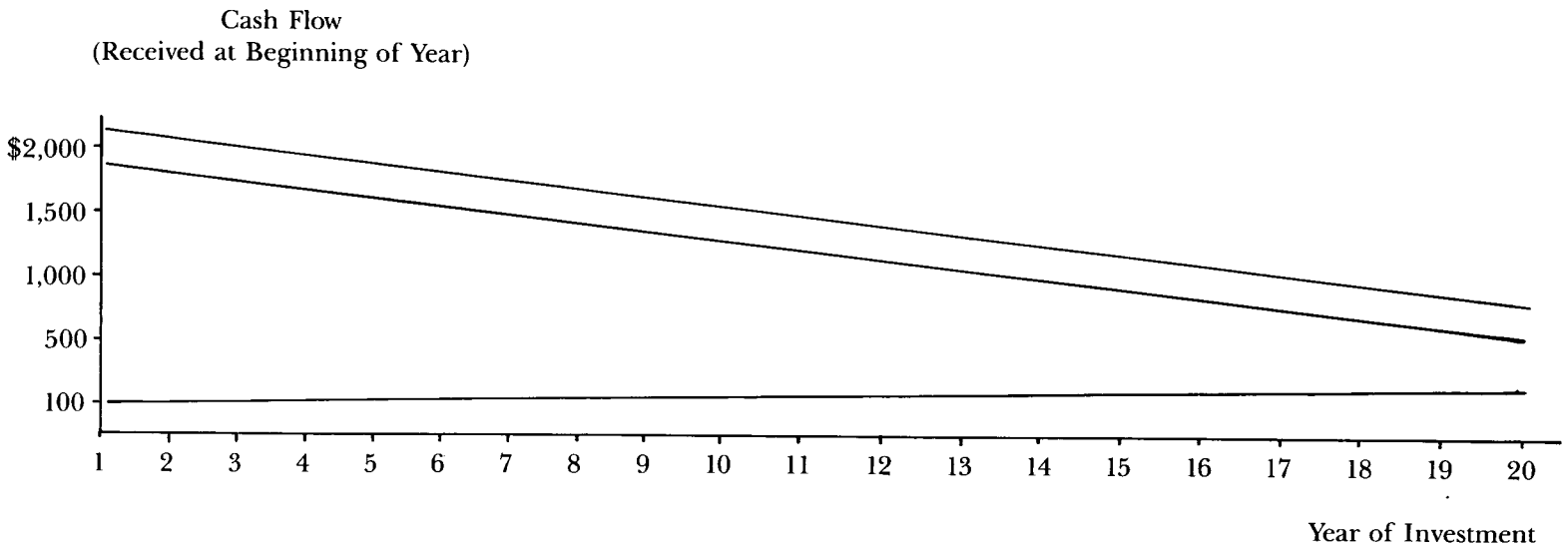


TABLE IX

Cash Flow for Trended Original Cost

90 Percent Equity and 10 Percent Debt

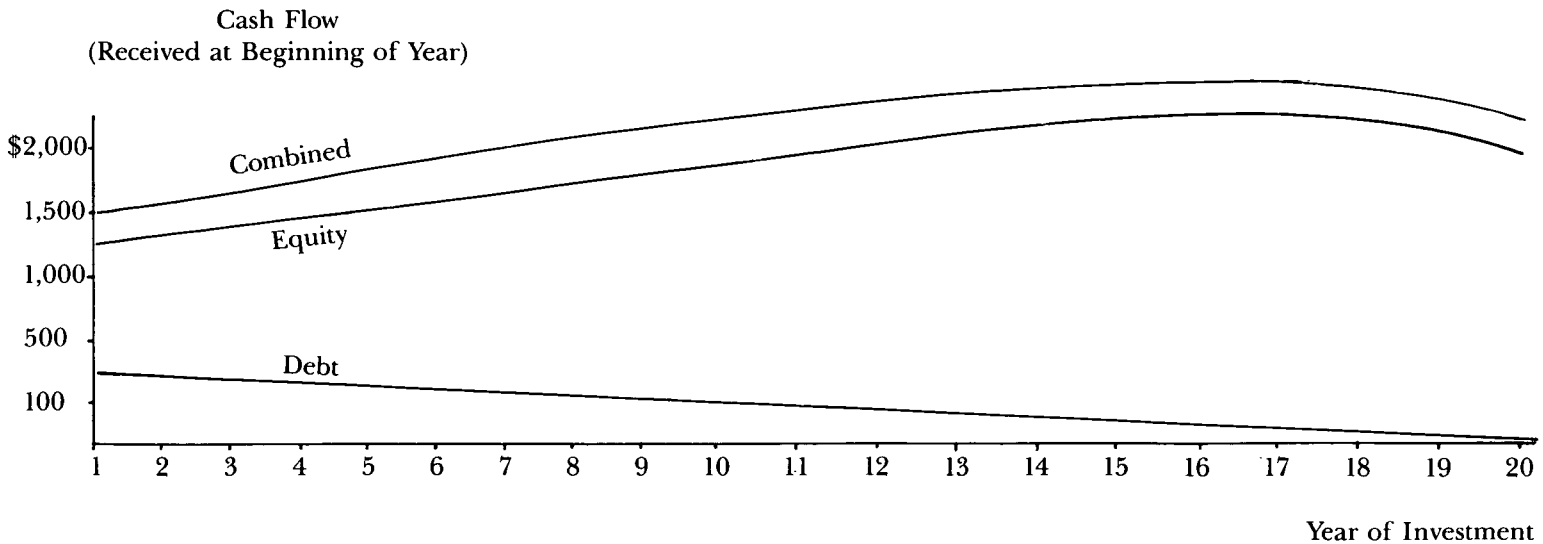


TABLE X

Cash Flow for Trended Original Cost

60 Percent Debt and 40 Percent Equity