analysis of the sensitivity of and biasing the results of the study.

2. The NERA Report

Like the Godwins Report, the NERA Report concludes that the GNP-PI does not capture the entirety of the costs associated with the implementation of SFAS-106. This impact, NERA appears to argue, will, however, be limited to a "cost-plus sector" representing roughly 10 percent of the economy and comprised of regulated utilities and defense contracting firms. Also like the Godwins Report, the NERA Report is undermined by a series of fatal flaws. ETI has identified five such deficiencies.

First, ETI shows that NERA erroneously assumes that price increases in the sector of the economy it has identified as the "cost plus sector will have little or no effect on the GNP-PI even though this sector accounts for some ten percent of GNP. As explained by ETI, this assumption ignores the fact that the remaining sectors of the economy buy heavily from the utilities and government contractors that populate the "cost-plus sector" and would thus experience price increases which ultimately would be passed through to their customers. All this inflation would eventually work its way into the GNP-PI.[53/]

Second, ETI points out that NERA provides no econometric or statistical estimates of the cost effects of the implementation of SFAS-106. Neither does it provide any parameter estimates, summary statistics or assessments of the forecast accuracy of any

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[53/] Id. at 24-25.

model. Indeed, ETI characterizes the NERA analysis as a simplistic 'back of the envelope' calculation"[54]

Third, ETI notes that the NERA Report ignores the effects of the proposed exogenous treatment of the costs associated with the implementation of SFAS-106 on OPEBs. ETI reasons that if these costs can be passed directly on to ratepayers in the "cost plus sector," all employers (and their bargaining units) in that sector would migrate to 100 percent OPEB coverage. This migration would fuel increases in health care costs, inflation and further increases in PCIs.

Fourth, ETI points out that the NERA Report essentially challenges the data underlying the Commission's calculation of the productivity offset, thereby implicating a need to reanalyze and recalculate the entire price cap formula in the event exogenous treatment were to be afforded costs associated with the implementation of SFAS-106. And fifth, ETI notes that the NERA Report promotes an erroneous theory of price cap regulation which is unsupported, and indeed contradicted, by available data and strongly biased in favor of the LECs.

Reflecting its analysis of the Godwins and the NERA Reports, ETI concludes that both are "simplistic and inaccurate and contain assumptions about methods, data and forecasting that are not correct."[55] In ETI's view, the numerous serious flaws that have been identified in the studies "render [them] useless for

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[54] Id. at 25-26.

[55] Id. at 28.

estimating the effects of FAS 106 on GNPPI and the LECs."[56] In short, ETI advises, neither study should be given any weight by the Bureau in its analysis here.[57]

III.

CONCLUSION

By reason of the foregoing, the Ad Hoc Committee urges the Bureau to reject Bell Atlantic Transmittal No. 497, Pacific Bell Transmittal No. 1579 and US West Transmittal No. 246, and to decline to treat the costs associated with the implementation of SFAS-106 as exogenous for price cap purposes.

Respectfully submitted,

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[56] Id. at 21, 27.

[57] Id.

APPENDIX I

Analysis of FAS 106 Effects Under Price Caps

A Test Case for LEC Price Cap Regulation by the FCC

David J. Roddy
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Analysis of FAS 106 Effects Under Price Caps
A Test Case for LEC Price Cap Regulation by the FCC

David J. Roddy
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I. Introduction

In early 1992, three regional Bell companies filed tariffs to attempt to recognize the effects of SFAS 106 as an exogenous, or "Z", adjustment to the price caps applicable to their interstate rates. Statement of Financial Accounting Standards No. 106 ("FAS 106") will become a generally accepted accounting principle in 1993 for employers' accounting of Postretirement Benefits Other than Pensions ("PBOPs"). The Chief of the Common Carrier Bureau ordered an investigation of these tariffs and a suspension of tariffs scheduled to become effective in 1992.[1]

Economics and Technology, Inc. was retained to evaluate the specific tariff transmittals in question and the direct cases submitted on June 1, 1992 by other local exchange carriers regulated by the FCC's Price Cap plans. Our analysis demonstrates — overwhelmingly — that FAS 106 effects should not be treated as an exogenous adjustment under the LEC price cap plan, for two basic reasons.

First, *exogenous treatment of these accounting effects would be a very bad policy choice*. The entire context of the Commission's Price Cap plan for LECs is to eliminate regulatory issues of *precisely* the types raised by the FAS 106 issue. If FAS 106 effects were allowed as an exogenous adjustment under price caps then virtually any type of impact that the LECs could identify might similarly qualify. The LECs are attempting to limit the issue mainly to the question of how much of the FAS 106 effect is at risk of double-counting, in the Z-adjustment and in the GNPPI inflation. Their showings on this issue are deficient, however, because the Commission clearly intended that new Z-adjustments would not be authorized without very rigorous cost information.

The LECs' "cost" estimates are built upon a series of assumptions that is impossible for the FCC or any other entity to accurately audit. Inconsistencies occur even in the LECs' direct cases herein. Given the breadth of problems that exist in these proposals, granting exogenous treatment to FAS 106 effects would turn price caps into a bastardized

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1. Treatment of LEC Tariffs Implementing Accounting for PBOPs, *Order of Investigation and Suspension*, CC Docket 92-101, DA 92-540 (April 30, 1992) (the "Designation Order").

form of cost-plus regulation, a "heads-we-win, tails-you-lose" proposition by the LECs, which would violate any rationale for continuing the price caps experiment.

Second, aside from the core policy issue raised by the proposals, there are *serious problems with the LECs' data and outside consulting studies.* The data relied upon to support the tariff filings and the direct cases does not accurately reflect the economic consequences of FAS 106 accounting. The "models" of the overall economic effects of FAS 106 are simplistic and inaccurate and contain assumptions about methods, data and forecasting that are not correct.

The carriers would treat the FAS 106 balance sheet adjustment as if it were an actual cost outlay. It is not. Estimates of FAS 106 accounting effects are based upon actuarial forecasts and techniques that may not have been fully tested by the accounting profession, for telephone companies or, indeed, for other US firms. There is no supervening requirement that would provide an independent check upon these estimates. PBOPs are not governed by a separate regulatory statute, unlike Pension Plans that are regulated under ERISA. The marketplace cannot provide any sort of benchmark reference either. A number of US firms are now reflecting the effects of FAS 106 in current financial statements but there is no evidence that these firms have raised prices in order to account for such a "cost". Only telephone companies want regulators to authorize higher effective or potential prices in order to recover these "costs."[2]

The carriers' analyses ignore other offsetting economic effects, including the extent to which PBOP liabilities were reflected in the share prices of the LEC and other firms evaluated by the FCC for the rate of return represcription upon which the LEC price cap plan was based. Given the amount of data that was available for the modelling efforts noted above, the Commission should fairly conclude that FAS 106 effects already are discounted to some degree in the existing *nationwide average* rate of return prescribed for all carriers. The LECs submissions also would ignore the inter-relationships between employee compensation and benefits, including PBOPs, and the savings that would occur through the employee reduction plans now underway. Such offsetting efficiencies can continue to occur in the future, as the Price Cap plan was designed to encourage.

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2. The LECs' own financial statements and other reports (including reports to the Securities Exchange Commission) appended to their Direct Cases pursuant to the Designation Order, accurately state that the effects of FAS 106 depend upon actions by regulators such as the FCC. *See*, for example, Direct Cases of United companies, Attachment C, pp. 2 of 3; BellSouth, Appendix 4; and SNET, Exhibit B. The FASB explicitly recognizes these conditions. In other words, FAS 106 has no *ipso facto* effect on the rate levels of regulated public utilities.

II. Price Cap Policy

The LECs who seek to have a "Z"-adjustment for PBOP accruals may find some solace in prior FCC discussions that viewed these as "expenses" or "costs" of doing business. However, when FAS 106 "costs" are viewed in the much larger context of what the FCC was trying to accomplish with the Price Caps system, it is clear that these costs should not be automatically passed on to interstate ratepayers. The *LEC Price Cap Reconsideration Order* set the context for the current proceeding on FAS 106:

> The Financial Accounting Standards Board (FASB)...has amended GAAP to require accounting treatment of OPEB costs-on an accrual basis starting in 1992. In the LEC Price Cap Order, we stated that price cap regulation does not affect our prior practice of requiring carriers to notify us of their intention to implement a change in GAAP...[W]here we find a GAAP change to be compatible with our regulatory accounting needs, we will consider whether amendment of our Uniform System of Accounts is necessary or desirable.
>
> The OPEB expenses some LECs have embedded in their July 1990 rates were introduced pursuant to existing accounting rules that permitted LECs, at their option, to change their accounting treatment of OPEB expenses....Carriers that chose to accrue OPEB expenses were not more "right" or "wrong" than carriers that chose to await the GAAP change. Under the rate of return regulatory structure, as long as the carrier's costs are reasonable and prudent, those costs can be used in the ratemaking process to justify rates.
>
> Our change in regulation, from rate of return to price caps, should not result in our changing the treatment of such costs. While a regulatory change may affect prospective treatment of these expenses, costs and rates that have been accepted as reasonable and prudent under prior standards should not be treated as unreasonable or imprudent merely because our regulations have changed....Our decision not to consider exogenous treatment of GAAP changes, including OPEB expenses, until the GAAP change becomes effective is one grounded in the orderly administration of our price cap system....Under this decision, carriers that elected to wait until the GAAP change becomes effective before expending funds for OPEB are not necessarily foreclosed from recovering these costs. Instead, we will consider requests for exogenous treatment at that time. On the other hand, removal now of already-accrued OPEB expenses from initial price cap rates would not only redefine "reasonable" after the fact, but it would also foreclose carriers from any recovery of expenditures already made.

> Further, the test of whether to grant exogenous treatment of GAAP changes is not restricted to whether the change is outside the control of the carrier, as GTOC suggests. As we discussed in the AT&T Price Cap Reconsideration Order, the determination of whether a particular GAAP change is exogenous *includes* an analysis of whether the cost change will be reflected in the inflation variable of the PCI. If a GAAP change is universal enough to be reflected in the inflation measure, exogenous cost treatment would result in double counting within the context of the PCI.[3]

Apparently wishing to construe this type of language most favorably to their positions, the LECs mistakenly suggest that the only issue to be resolved with respect to FAS 106 is the extent to which these costs also are reflected in the GNP-PI.[4] The LECs submitted two outside studies in order to attempt to address this "double counting" issue. We demonstrate in Section III that both of these studies are seriously flawed and cannot be relied upon for their intended purposes. Nevertheless, the scope of the inquiry in this matter must go far beyond the issue of whether a "cost" change is reflected in the GNPPI. The *LEC Price Cap Reconsideration Order* also underscored that exogenous "costs" must be so clearly identified that they do not pose new cost allocation or assignment problems as difficult as any raised by traditional rate of return regulation. The Commission reiterated its intent to avoid these very problems in trying to differentiate "normal" versus "exceptional" costs like "equal access" costs:

> [T]he Commission found that it was not necessary to further encourage equal access conversion by treating those costs exogenously. We also noted that difficult issues might arise in terms of our ability to review the equal access costs claimed as exogenous, and that the declaration of equal access costs as exogenous

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3. *LEC Price Cap Reconsideration Order*, at paragraphs 59, 60-63, emphasis added; footnotes omitted.

4. *See*, for example, UTC's Direct Case at page 7. The carrier argues that it would be "disproportionately disadvantaged" compared to the LECs that had adopted some accrual account for PBOPs prior to the implementation of Price Caps. This assertion is wrong on two counts. First, UTC and other LECs benefit from the *industry-average* rate of return established by the Commission in 1990 and there is no showing that the rates of return did not fully discount future PBOPs costs for LECs and other firms deemed comparable by the FCC's prescription process. Second, UTC's "disadvantage" is only against LECs — with whom it does not directly compete — who might continue to be allowed to accrue PBOPs for ratemaking purposes; UTC is not "disadvantaged" as against most US firms in the larger markets for capital and other inputs.

> would itself provide, an incentive for LECs to claim costs as "equal access" costs. LEC Price Cap Order, 5 FCC Rcd 6808 [paras. 180-181].[5]

And, it set forth a similar rationale concerning a carrier's possible incentive to mis-allocate, artificially accelerate or otherwise mis-identify costs classified as "exogenous" like depreciation:

> The petitioners have not raised any new arguments that would cause us to reconsider our treatment of depreciation costs. Although the Commission prescribes depreciation rates, carriers still exercise control over their depreciation costs with their decisions to deploy or retire equipment. As long as the service life of the plant is the major determinant of depreciation rates, treating a change in depreciation rates as exogenous would give the LECs power to influence their PCI levels and would destroy the usefulness of the PCI as a benchmark...[6]

Indeed, the Commission's determination to avoid regulatory systems that depend upon detailed analyses of costs, cost allocations and offsets among cost increases and cost savings was evident even at the commencement of the price caps proceeding:

> Experience with cost-of-service regulation has taught us...that even if done correctly and well, it nevertheless imposes significant costs on regulated firms and on those they serve. The policies and rules we have developed to make this method of regulation work are complicated; their application and enforcement are a resource intensive activity for the regulator, the regulated firm, and other interested parties.
>
> ....Regulators are, however, in a poor position to second-guess carriers when they claim that a particular capital expenditure is necessary to assure continued high quality service. Nor can regulators routinely perform the kind of micromanagement of these firms needed to detect whether the work force is bloated, the equipment overdesigned, or the network overbuilt. The carrier itself has little incentive to undertake such an inquiry.[7]

And the Commission returned to this theme nearly 20 months later, after evaluating four sets of public comments concerning the risks or benefits of price caps regulation:

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5. *Id.* paragraph 64.

6. *Id.*, paragraph 74, footnotes omitted.

7. Policy and Rules for Dominant Carriers, *Notice of Proposed Rulemaking*, at paragraphs 17-18.

> Moreover, administering rate of return regulation in order to counteract [its adverse] incentives is a difficult and complex process, even when done correctly and well. This is so primarily for two reasons. First, such regulation is built on the premise that a regulator can determine accurately what costs are necessary to deliver service. In practice, however, a regulator may have difficulty obtaining accurate cost information as the carrier itself is the source of nearly all information about its costs. Furthermore, no regulator has the resources to review in detail the thousands of individual business judgements a carrier makes....
>
> The second inherent difficulty associated with administering rate of return regulation relates to its requirement that determinations be made about how to allocate a carrier's costs among services that often are provided jointly or in common. Such determinations tend to become more economically problematic as they become more detailed. The history of this Commission's experience in this area over the past several decades reflects the difficulty of implementing cost allocation systems.[8]

It is difficult to imagine a "cost" that would be more elusive for the FCC to audit than FAS 106 accounting effects, and it is hard to see just what sort of detailed cost information the Commission could require, in advance, in the manner of a "tariff review plan."[9] For example, as we discuss in Section III, even the outside consulting studies proffered by the LECs gloss over or entirely omit several important factors such as the extent to which future PBOP liabilities are already discounted by capital markets.[10] The Commission seems to have recognized the highly problematic nature of Z-factor

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8. *Second Further Notice of Proposed Rulemaking*, April 17, 1989 at paragraphs 31-32, footnote omitted.

9. Although the Designation Order required each LEC to submit the same types of data in their Direct Cases it is apparent that not all of the carriers have submitted either the precise types or quantities of information, or other supporting detail. Some of the information submitted, such as the companies' demographic data, could not be used to verify or audit the FAS 106 estimates without additional access to assumptions, algorithms and perhaps computer software that utilize these data. The point is not that the LECs may have deliberately withheld information — it is that specification of all of the information likely to be required is bound to difficult for both the Commission and the LECs.

10. More incredibly, the study submitted by the Pacific Telesis seems to assume away most of the underlying rationale for Price Caps by including LECs interstate rates in a class of outputs relegated to a so-called "cost-plus" sector of the economy.

adjustments, and recently reiterated the significant economic showing that must accompany a request for exogenous treatment:

> Exogenous costs are one of three variables that determine how the price cap moves over time. They exist for two principle reasons: there are some cost changes that are imposed on carriers over which they have no control, and the Commission has determined that failure to recognize these costs changes in the price cap mechanism would work unfairness on ratepayers or carriers. While these costs are typically described as being outside a carrier's control, not all such costs are given exogenous treatment. Only a limited list of such costs are permitted to be factored into changes in the price cap. By creating a limited list of exogenous costs, a decision that was heavily debated and thoroughly discussed in the development of price cap rules, price cap regulation creates higher risks for carriers to balance against the higher financial rewards available under the system. At the same time, the system creates incentive for carriers to manage costs within their control.
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> The LEC Price Cap Order did leave open the possibility of adjusting the cap for an exogenous cost not included in the limited list by acknowledging that carriers could make case-by-case showings for extraordinary exogenous costs. In doing so, however, the Order states the possibility of making a successful extraordinary exogenous cost showing must be grounded in a demonstration that without the adjustment rates under price cap regulation would be confiscatory. SWB, although it has alleged tariff year costs above those it expected and earnings below the targeted rate of return has not made a sufficient showing that these changes are resulting in confiscation....[11]

We believe that it is impossible for the LECs to demonstrate that FAS 106 accounting effects would ever result in "confiscation," *under either price caps regulation or traditional rate base regulation.* Quantifying the effects of FAS 106 would still be

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11. Southwestern Bell Telephone Company, Application for Review, Transmittal No. 2051, *Memorandum Opinion and Order*, (FCC 92-197), May 6, 1992. at paragraphs 31 and 32. Footnotes and citations omitted. In this order, the Commission explicitly noted that Price Caps is designed to account for inter-temporal effects (i.e., the timing of gains and losses) that may be difficult or impossible to capture in the "test year" of traditional public utility regulation: "[P]rice caps operates very differently from rate of return. Under price cap regulation, the decision to implement such a program would not result in an increase in the price cap: since prices do not change. Shareholders (not ratepayer) bear the burden of the decision to increase expenses. In the future, shareholders would eventually reap the benefit of such a decision, so long as the program leads to lower future expenses." [paragraph 20].

contentious and problematic under traditional regulation, because there is no firm test of a reasonable level of PBOP accruals. The FAS 106 standard was altered so as to require that the PBOP obligation reflected only the current "substantive" plan for calculating such benefits for a firm's employees, rather than a formal written plan.[12] The "substantive plan" standard, which may be compatible with the broader requirements of financial disclosure rules, is less precise than the requirements for funding these plans allowed by section 419 and 501(c)(4) of the Internal Revenue Code. The lower requirements of FAS 106 are illustrated in the LECs' Direct Case: Even those carriers which elected to fund Voluntary Employee Benefit Association (VEBA) Trusts prior to the commencement of price caps (i.e., under the tax code provisions) estimate that the computation of FAS 106 effects would substantially increase the proposed Z-factor adjustment.[13]

In order to ensure that financial reports are as complete as possible, the FAS 106 accrual process includes very liberal and general provisions accepting many actuarial estimates of future PBOP effects. The actuarial studies submitted by price caps LECs in this case — a small number of the total firms that will comply with the FASB pronouncement — show very significant differences in the factors used in the studies. These factors include differences in discount rates, returns on plan assets, estimated medical care cost trend rates, and the data used to compute demographic factors such as retirement rates, turnover rates and mortality rates. **Table A** following illustrates some of the many differences in the variables estimated by the carriers subject to the Commission's Designation Order. Neither we nor the FCC could actually determine that one set of actuarial and demographic assumptions is "correct" based on the Direct Cases.[14] These

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12. *See* Pacific Bell Direct case, June 1, 1992, at Appendix 8 [Testimony of J. M. Bertko, CPUC Docket I.90-07-027, pp. 16-17]

13. *See*, for example, the Direct Cases of SNET, Exhibit 1 [VEBA cost $26M; FAS 106 accrual $41.3M]; BellSouth, Appendix 2 [VEBA cost $191M; FAS 106 accrual $210M]; Pacific, Appendix 7, "Section One - Management Summary" [VEBA cost $295.6; FAS 106 accrual $402.5M]

14. The testimony submitted by Pacific Bell in California, Appendix 8 of its June 1 Direct Case, notes at p. 11 that "other assumptions, such as interest rates, retirement rates and turnover rates are also important [in actuarial studies] but will be similar for many employers." The question is: How similar is similar? Are the differences in the assumptions used by various LECs sufficient to be important? GTE notes in its Direct Case [p. 13] that "the assumptions will be adjusted as appropriate." When? To what degree? Will these possible changes magnify the differences in the estimating techniques used by LECs for FAS 106 effects? Will these changes then become important? Merely to ask such questions is to underscore the quagmire that awaits the FCC if it attempts to allow a Z-adjustment.

TABLE A FCC Docket 92-101
COMPARISONS OF LEC DATA IN DIRECT CASES (1)

DATA ITEM	AMER	BATL	BSTC	GTE	NYNX	PACB	SNET	SWB	UNITED	USWC
Basis:			[VEBA]		[VEBA]	[VEBA]	[VEBA]			
OPEB 1991		404.4	142.4			181.3				366.0
OPEB 1992		418.6	157.5			192.1				
OPEB 1993			210			102.6			78.4	432
PAYGO 91	50.3	302.0	38.8	14.4		104.2	18.5		14.8	107.0
PAYGO 92	51.8	302.0	46.5	18.8		119.5	26.1		13.9	
PAYGO 93			26						15.6	121.6
OTHER						280.6				
Cost different.		116.6	184							310.4
					AVG					
1993 Interstate r/r		20.3		65.0		25.4	2.0		3.9	19.0
PCAP-start r/r					73.0	34.0				59.3
Discount rate	7.5%	8.0%	9.0%	8.0%	8.5%	5.0% a/t		7.5%		8.5%
Ret. on plan assets	N/A	8.0%	8.0%	8.0%	9.0%	8.5%		7.5%		0.0%
INFLATION										
PRE 65 (unless noted)	-ALL-				TREND	IN-NET				-ALL-
Start year	1991		1993	1991	1991		1992	1992		1991
rate	10.0%		11.0%	15.0%	15.0%	12.0%	11.4%	14.0%		9.0%
			1995							
			13.0%							
Stop year	2000		2007	2000	2011		1994	2000		2000
rate	6.4%		7.0%	6.0%	4.0%	6.0%	9.9%	6.0%		8.0%
POST-65					INFL/s					
Start year	"		1993	1992	1991		1992	1992		"
rate	"		4.0%	10.0%	9.0%		5.0%	13.0%		"
	"		1995							"
	"		5.2%							"
Stop year	"		1996	1997	2011		1994	1997		"
rate	"		5.0%	6.0%	4.0%		8.1%	9.0%		"
PAY INCREASES/YR				6.0%			5.0%			
RETIREMENT RATE				HIST			1973-77			1975-78
	data not	data not				sel '91				
TERMINATION RATE	sourced	sourced	1975-85	HIST		exper.	1975-78			1975-78
MORTALITY	1983		1980-85							
			1976-83							

Note 1: This table is not intended to show each data point for each LEC in a strictly comparable manner, because different carriers reported data in various ways. Some data are incremental in nature while other are absolute numbers. The table is used simply to compare differences in certain LECs' estimates. where comparable and to note the wide differences submitted in LEC direct cases.

various LEC assumptions may *all* be correct, or they may all be in error.[15] Firms other than public utilities (who are also subject to FAS 106 reporting but who cannot increase prices to account for its effects) may have many other possible actuarial estimates of PBOP obligations. No one is in a position to calculate which (if any) of these many possible estimates are correct.

The unknown sensitivity of the proposed Z-adjustments to various LEC actuarial assumptions should be fatal to the LECs' proposals without more. If estimates vary as significantly as those shown in the LEC Direct Cases they should simply be rejected. There is no "benchmark" against which to measure the various LEC assumptions, because there is no supervening legal requirement which might be able to validate these estimates. FAS 106 is not an enforceable requirement of law; it is strictly voluntary, and, as noted, very broad in application. The Internal Revenue Code provisions noted above are neither mandatory nor do they create enforceable contract obligations for the firms (regulated or not) which elect to fund VEBA trusts. Unlike pension plans, PBOPs are not governed by the Employee Retirement Income Security Act (ERISA) and are not subject to any uniform governmental regulation. The LECs' Direct Cases in this proceeding do not allege otherwise. For example, the employee information pamphlet attached to BellSouth's Direct Case states clearly in the Introduction that the carrier's PBOPs may be subject to modification at any time, despite the company's current intent to continue the plan. Similarly, the employee information provided by Pacific Bell in CPUC Investigation Docket 90-07-037 contains a similar disclaimer.[16] In other words, all of the actuarial estimates of future PBOP obligations are no more than unenforceable guesses. These data do not provide a sufficient basis for a Z-adjustment under the FCC's Price Caps plan.[17]

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15. For example, Table A compares the time periods used for calculations of employee mortality data in the various actuarial studies. Some of these estimates date back to the mid-1970s, while others reflect data through 1983. One carrier reports that no more recent mortality data is available because post-1983 telecommunications industry mortality data are not yet fully compiled. NYNEX Direct Case, Attachment H.

16. This information is contained in Appendix 6A to the "Phase II Testimony" of the Division of Ratepayer Advocates, California Public Utilities Commission, in docket I. 90-07-037, November 15, 1991. The referenced material was submitted for the record in this proceeding by an *ex parte* submission of the Ad Hoc Telecommunications Users Committee, dated June 9, 1992.

17. In rejoinder, some LECs may argue that the disclaimers in their employee information should be disregarded by the FCC because these future benefits are covered by employee contracts. Thus, they may argue the disclaimers have little practical effect, because some obligations are governed by union or other contracts. However, the entire policy context of Price Caps argues

(continued...)

The uncertainty surrounding this actuarial forecasting are compounded by the current force reduction programs undertaken by most LECs. Several LECs announced early retirement, attrition and other reduction plans even before price caps went into effect and more such changes are expected in the future.[18] Such programs clearly have an effect on the historical pattern of employee demographics that the actuarial studies are attempting to analyze, and which Pacific Bell's witness in California deemed to be "important." Although few of the LEC Direct Cases contain information on this point, the effects of Pacific Bell's 1991 early retirement program can be gleaned by comparing the age distribution of retirements shown on pages 11 and 12 of Appendix 7. The early retirement incentives increased retirement rates at ages 50 and 55 [from 1.7% and 5.4% under historical data to 3.3% and 6.3% under the 1991 plan, respectively] but reduced retirements of remaining employees at ages 60 and 62 compared to history. The net effect of these changes in retirement rates cannot be ascertained from Pacific's studies.

Now, one might argue that these changes in retirement patterns would increase the size of FAS 106-related accruals, because the pool of retirees would be increased relative to historical averages. However, the Direct Cases of various carriers do not reveal any direct relationships between early retirement and increased retiree health costs. Bell Atlantic, for example, reports that its more recent (post 3/31/86) retirees will cause it to incur lower unit health costs, presumably because the scope of coverage for these retirees differs from that applicable to earlier Bell Atlantic retirees.[19] Early retirees are more likely than the post-65 generation to obtain new careers or jobs, and thereby become subject to another active employment health or dental plan. Moreover, the smaller percentage of post-60 employees who retire after an "early-out" plan can reflect (a) the smaller absolute numbers of such employees who remain active in the company at that age, and/or (b) a relatively higher level of health and vigor among employees who do not

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17. (...continued)
strongly against this type of "escape." The Commission does not have nor can it expect to obtain any information that would allow it to assess whether employees' PBOPs might someday be reduced or be bargained away by employees who valued current wages, job security or other factors more highly than PBOPs. Because there exists no *statutory* entitlement to these benefits, it would be rank speculation for the Commission to give any weight to such arguments. Accordingly, the provisions of any *current* union contract or other employee agreement cannot convert these speculative estimates into a Price Caps Z-adjustment for interstate tariffs.

18. *See*, for example, "Changing Market Forces Bells to Clean House," *Wall Street Journal* June 17, 1992 [Northeast edition, p. B-4]

19. Bell Atlantic Direct Case, Table 17.

elect early retirement. Thus one might conclude that early retirement incentives decrease future PBOP costs and therefore could have a meaningful impact on the actuarial studies.[20] In other words, the LECs are seeking a Z-adjustment that is affected by activity (early retirement plans) representing the types of carrier behavior sought by the FCC when it created the price caps experiment. The LECs want to raise the potential price ceilings without accounting for the efficiency-enhancing effects. A clearer example of "heads-we-win; tails-you-lose" is hard to imagine.

As noted above [footnote 4], the LECs also attempt to carve out a special niche for themselves by fundamentally ignoring any real economic implications of FAS 106. Simply put, FAS 106 is only an accounting change. To the extent it has any economic dimension at all, i.e., to the extent that it might be viewed as part of the economic costs of telephone service, the economic value is estimated and appropriately discounted in the same way for any firm, not just LECs. The Price Cap LECs (and in all probability ROR regulated carriers as well) will not be "disadvantaged" in terms of FCC policy, if the carriers input costs and efficiency incentives are affected the same as other US firms which whom the LECs compete in larger markets for capital and other factors of production. One of the outside studies prepared for USTA explicitly relied upon a large data base of health care prices, costs, employee contributions and co-payments, eligibility requirements, deductibles and other insurance requirements.[21] These data have not heretofore existed in a vacuum. The information has been available to actuaries, securities analysts, insurance and benefits consultants and any other analyst who may have cared to compute potential long-term health care costs for any segment of the population. In fact, the FCC's represcription of the industry-wide rate of return for LECs explicitly relied upon Institutional Brokers Estimate Service (IBES) data on dividends, earnings and stock prices as part of the discounted cash flow analysis used to establish the prescribed return on equity. IBES data were determined by the FCC to be a reasonable expectation of investor expectations.[22] All of the LECs supported and benefited from the *industry-average* rate of return established by the Commission in 1990. Any LEC which wanted to adjust its rates or price ceilings in order to account for supposed FAS 106 effects should

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20. Indeed, of course, the "net-net" of *any firm's* early retirement incentives must be to lower costs — otherwise such plans would not be economically rational. Thus, whether or not future PBOP costs were reduced absolutely, for the LECs or any other firm, such corporate actions presumably improve the overall efficiency of the firm.

21. *See* Section III, footnote 44, below.

22. Represcribing the Authorized Rate of Return for Interstate LECs, *Order*, CC Docket 89-624, (FCC 90-315), February 7, 1990. See for example, paragraphs 59 (comparable firm rankings from the S&P 400); 67 and 69 (IBES data); and paragraphs 182-189, generally, and Appendix E.

first be required to prove that these effects are not already reflected in the initial rates used to establish price caps, based upon the Commission ROR prescription. The LECs should show that the ROR did not fully discount future PBOPs costs for LECs and other firms deemed comparable by the FCC's prescription process.

III. Carrier Economic Data

In attempting to evaluate their narrow view that a Z-adjustment is warranted as long as the effects of FAS 106 on the GNPPI can be isolated, the LECs subject to the Designation Order submitted two studies by economic consulting firms. In their Transmittals 497 and 246, Bell Atlantic and US West relied upon a study submitted by Godwins, Inc. In their June 1 Direct Cases, these carriers reiterated their reliance upon this study to show that the FAS 106 Z-adjustment was largely not reflected in the GNPPI, as did all of the other responding LECs except Pacific Telesis (Pacific Bell).[23] In its initial Transmittal 1579, Pacific Bell submitted an entirely different study attempting to justify Z-factor treatment of FAS 106 accounting effects, and resubmitted the report by National Economic Research Associates with its June 1 Direct Case.[24] As we demonstrate below, neither one of these studies demonstrates the core contention that it is attempting to prove. Neither study should be afforded any weight by the Commission.

As a threshold matter, neither consulting report confronts the fact that no economic cost increase actually occurs when FAS 106 effects are estimated. From an economic point of view, FAS 106 accounting is much different from an actual cost increase like a new tax, which has a direct and immediate cash consequence. Whatever effect occurs in the firms who do have a lot of promises to employees will be less, perhaps significantly so, than firms who encounter a direct increase in actual cash costs like taxes. In short, an economic liability that LECs had when price caps was started will now be recognized but because there is no increase in actual cost to the LECs, there is nothing to be passed on to the ratepayer. There may be, of course, technical questions such as how FAS 106 treats an employee who leaves a company before retirement although post retirement medical benefits had somehow been accrued and expensed on the balance sheet. These types of questions demonstrate that deficiencies in the actuarial reports and other data submitted by

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23. The original Godwins' study was dated February 18, 1992, entitled "Analysis of Impact of SFAS-106 Costs on GNP-PI." This study was re-submitted by USTA and the other LECs in their Direct Cases, along with another Godwins report dated May 26, 1992, which was entitled "Response to Paragraph 16 of FCC Order of Investigation and Suspension CC Docket No. 92-101".

24. National Economic Research Associates, "The Treatment of SFAS-106 Accounting Changes Under FCC Price Cap Regulation" dated April 15, 1992.

the LECs will always remain material to the FCC's analysis. But if the money is never actually spent by the company, then it is certainly true that it is not an economic expense.

If a firm revises its balance sheet in accordance with FAS 106 and feels that a price increase is called for, it will check the marketplace to see if competition (both for the same product as well as substitutes) and consumer incomes will support a price increase. I suspect that a lot of large firms will have no price increases at all when FAS 106 is implemented -- particularly with the current recession, the low interest rates, and the low inflation rate. Why would the FCC allow the LECs to pass on a non-cash cost increase that other firms who face the real marketplace cannot pass on? NERA readily admits that no cash cost increase occurs at the implementation of FAS 106.[25] Thus there is an uphill battle for the LECs and a heavy burden of proof assumed by the LECs to convince the FCC and ratepayers that a purely accounting cost change should result in increased prices for telecommunications services.

The Godwins Report

The theme of the Godwins Report prepared for the USTA is that FAS 106 will increase LEC costs in ways which will not be totally captured in the GNP Price Index or GNPPI.[26] Specifically, the February Godwins Report claims that 0.7% of the FAS 106 costs will be absorbed in the GNP Price Index directly and that an additional 14.5% will indirectly be incorporated in GNPPI changes. This, Godwins believes, would leave 84.8% of the increased costs of FAS 106 to be borne by the LEC. Godwins argues that the FCC should grant relief for this non-GNPPI "cost increase" via a "Z," exogenous adjustment in the price caps formula.

Even if one accepts the premise that the FCC intended to pass-on such changes via exogenous adjustments, the Godwins report is so flawed that it can contribute nothing substantive or useful to the FAS 106 debate. There are at least six fatal flaws which, individually and cumulatively, show clearly that the FCC should give no consideration to the Godwins report. Before we detail each of the flaws, it is useful to summarize and interpret a critical flaw in their model and the subsequent confusion promoted by Godwins.

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25. See, for example, NERA Report, page 9.

26. Actually, they argue that GNPPI may show no change at all while some firms have big "cost increases". They seem to argue then that there may never be independent visible proof of the LEC claim -- other than the theoretical model in their study.

In the Godwins model, the key numbers which determine the results are simply invented. They are made up[27]. For example, the price elasticity of demand for the economy's output is assumed to be -1.50. Another key factor, the labor supply elasticity, the response of labor supplied to real wage changes, is assumed to be 0.00, again a number simply invented for the purposes of their report. A quote from Appendix C-5 of the Godwins Report illustrates the process:

> The model is *calibrated* so that in the absence of FAS-106 it yields an allocation of labor across sectors...It is also *calibrated* such that in the absence of FAS-106, all nominal prices are equal to one. [emphasis added].[28]

What is this calibration? It is *not* econometric or statistical analysis of real economic data. It is made up numbers. Calibration has no basis in economic and econometric analysis. In fact, the term is never used in such standard econometric textbooks as Kmenta (1971), Berndt (1991), Greene (1990), and Theil (1971).[29]

Since the Godwins study frequently mentioned a "model", Paragraph 16 of the Designation Order requested the underlying data, estimation methods, summary statistics, and tests of forecast accuracy. It would have reflected standard practice to provide these data with the original study. Godwins did not do so, and it responded with the May report which admits that there is no econometric model after all. After much evasion (and duplication of material from the February report), Godwins finally admits

> However, the values of the parameters used in the classical general equilibrium model in the Godwins report were not econometrically estimated in the course of the preparation of the Godwins Report. Instead, the numerical values of the model were calibrated ..."[30]

The authors continue this theme later in their response with circumlocutions such as, "Summary statistics are often used to gauge the forecasting accuracy of conventional short-run forecasting models, but such statistics are not appropriate in the case of the

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27. Godwins February Report, Page 29.

28. Godwins February Report, page 58.

29. Kmenta, J. *Elements of Econometrics*, New York: Macmillan, 1971; Berndt, E. *The Practice of Econometrics - Classic and Contemporary*, Addison-Wesley, 1991; Theil, H. *Principles of Econometrics*, New York: Wiley, 1971; and Greene, W., *Econometric Analysis*, Macmillan, 1990.

30. Godwins' May Response, page 3.

macroeconomic model used in the Godwins report."[31] Thus the Godwins Report does not estimate anything from actual historical economic data -- the data are simply invented. Since there is no empirical support for the quantitative estimates; the Report is simply a misled academic exercise and should be given no weight in the determination of the matter under investigation. We are not aware of any situation where a theoretical mathematical model like Godwins's has been combined with hypothetical data to support or make large scale multi-million dollar policy decisions.

Is it possible that the macroeconomic model (a set of hypothesized relationships) used by Godwins needs no data to estimate the very specific results that they obtain?
No. The authors appear to realize the need for data; in fact, they undertake an extensive process in order to invent various numerical estimates to run through the computer programs. If no numbershad been construsted, there would be no final result.

Aside from its ignoring the material fact that no economic cost increase actually occurs when FAS 106 becomes effective, the Godwins report contains five fatal flaws which make it useless for estimating the effects of FAS 106 implementation:

1. Godwins has chosen the wrong kind of model to evaluate the effects of FAS 106, even if one thought erroneously that there would be effects that should be recognized.

2. The key numerical parameters of the model are invented by Godwins and not estimated from any economic database.

3. The Godwins model erroneously assumes that workers do not evaluate the value from post-retirement benefits and that employers do not view these benefits as current costs.

4. The Godwins model incorrectly uses an outdated functional form to represent the production function for the economy.

5. The usual uncertainty that is associated with survey results measured by calculated standard errors is totally ignored.

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31. Godwins' May Response, page 7.

Godwins choose the wrong kind of model to evaluate the effects of FAS 106. In order to "quantify" the effects of the accounting change on the LECs, Godwins combines a macroeconomic model with certain survey data on company non-pension post retirement benefits. It should be highlighted that *Godwins does not use an econometric model*, which would be based on statistical estimates using macroeconomic data. This is a fatal flaw which destroys their efforts and makes their "estimates" useless for application to public policy questions.

Godwins uses the model developed in "Monopolistic Competition and the Effects of Aggregate Demand" by Blanchard and Kiyotaki.[32] However, this model was never intended to be used to estimate such benefit effects and has no track record to determine whether or not the forecasted effects, the underlying assumptions, and the internal relationships have any value. Quantitative economists deal basically with two kinds of models: One is mathematical models that help understand economic relationships but which are not necessarily analyzed or estimated with actual data. Microeconomic models of the Averch-Johnson effect fall into this category. These models are not typically associated with data and do not lend itself easily to estimation. They are designed and studied to investigate a concept qualitatively *not quantitatively.*

The second kind of economic model is explicitly designed to be estimated with actual data. With this type of model, economists develop databases, estimate numerical relationships and perform a series of standard econometric tests. An example of this kind of model would be the estimation of demand elasticity values such as the -0.723 commonly used in telecommunications demand studies.[33] With econometric models, independent researchers can analyze the assumptions and model structure. In order to evaluate the validity and accuracy of a forecast such as Godwins proposes, it is traditional and important to examine the actual estimated equations.[34]

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32. *American Economic Review*, Volume 77, No. 4, September, 1987.

33. J. Gatto, et. al., Interstate Switched Access Demand Analysis", *Information Economics and Policy* 3 (1988) pp. 333-359. The results of this model were used by the FCC in the LEC Price Caps Order in CC Docket 87-313.

34. See, for example, Frentrup and Uretsky, "A Study of Local Exchange Carrier Post Divestiture Switched Access Productivity," Appendix C to the *Second Report and Order* in CC Docket 87-313 released October 4, 1990.

If one were to choose a model to estimate the possible effects of FAS 106, the best choice would have been the second kind of model - one that is explicitly designed for empirical analysis. Thus it is surprising that Godwins chose a model of the first kind -one with no empirical or statistical estimation in the *American Economic Review* article. In fact, the conclusions of the *AER* article are all "theoretical" in nature and are not specifically related to any actual data in the US economy.

At least four easily available "empirical" models could have been used and would have been more standard, including those by Data Resources Inc., Wharton, Fair, Georgia Tech (Ratajzak). These models do not have information about post retirement, non medical benefit levels; an actuarial data set would still have to be found. *However, these models do have a consistent model of the macro-economy which is regularly used to estimate these kinds of policy changes.* One would have to combine the benefit information with the macroeconomic model to estimate the effects. However, due to the problems mentioned above, we should not necessarily assume from the outset that there are any real effects.

Standard empirical econometric models would better analyze the FAS 106 issue for a variety of reasons: (1) they are regularly used to estimate the effects of policy changes such as changes in tax rates as well as exogenous changes such as an increase in energy prices; (2) these models are already estimated and economists have determined that the underlying estimated relationships make sense, for example, a positive relationship between consumer expenditures and consumer disposable income; (3) the forecast performance has been used to adjust the model equations to best reflect actual economic data; and (4) a long time period, perhaps as much as 30 years, has been used to estimate the model and develop long term economic relationships.

In contrast, the Blanchard-Kiyotaki is new and untested; it is a mathematical model with no structured relationship to economic data. A quote from the article shows that the Blanchard-Kiyotaki model's purpose has nothing to do with evaluating the effects of price changes at all:

> In particular, how important is monopolistic competition to an understanding of the effects of aggregate demand on economic activity? This is the question we analyze in this paper.[35]

35. Blanchard and Kiyotaki, op. cit., page 647.

Monopolistic competition is a precise state. A recognized text states that monopolistic competition must "satisfy four conditions, *three of which are the same as perfect competition*" i.e., numerous participants, heterogeneity of products, freedom of exit and entry, and perfect information.[36] One would hardly ascribe all these conditions to the basic local exchange carrier industry. Thus, the Blanchard-Kiyotaki model has absolutely no relevance to Godwins's objectives to analyze the effects of FAS 106, but was used in the report anyway.

The key numerical parameters of the model are invented by Godwins and not estimated from any economic database. We noted above that the Godwins model is a set of mathematical equations without any specific numerical estimates. The authors never use macroeconomic data to actually test whether the model describes the US economy or any part of it. How do the authors use the model to present very specific numerical results? In the Godwins model, the key numbers which determine the results are simply invented. They are made up[37]. For example, the price elasticity of demand for the economy's output is assumed to be -1.50. This is supposed to represent the economy's reductions in purchases as real price increases. Why not estimate a statistical model or use a model that estimates such values? Godwins has chosen to simply invent the numbers.[38] Again, the labor supply elasticity, the response of labor supplied to real wage changes, is assumed to be 0.00, again a number simply invented for the purposes of their report. A quote from Appendix C-5 of the Godwins Report illustrates the process:

> The model is *calibrated* so that in the absence of FAS-106 it yields an allocation of labor across sectors...It is also *calibrated* such that in the absence of FAS-106, all nominal prices are equal to one. [emphasis added].[39]

As we discussed above this approach promotes a major confusion: Did Godwins estimate the model or not? This question must have proved somewhat embarrassing to Godwins when Godwins personnel responded to Paragraph 16 of the Designation Order which

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36. Baumol and Blinder, *Economics*, Fourth Edition (Harcourt Grace Javonovich, 1988), p. 612.

37. Godwins February Report, Page 29.

38. The authors do try to perform a kind of sensitivity analysis by determining the effects of using alternative 'made-up' numbers around the 1.50 elasticity on page 39. But this makes no sense because they are comparing two hypothetical values — *neither of which has any basis in historical economic data.*

39. Godwins February Report, page 58.

requested the underlying data, estimation methods, summary statistics, and tests of forecast accuracy which are standard practice to provide.[40] After considerable circumlocution, Godwins finally admits:

> However, the values of the parameters used in the classical general equilibrium model in the Godwins report were not econometrically estimated in the course of the preparation of the Godwins Report. Instead, the numerical values of the model were calibrated ..."[41]

Since there is no analysis based on real economic data, any resulting estimates are "hypothetical."

The Godwins model erroneously assumes that workers do not evaluate the value from post-retirement benefits and that employers do not view these benefits as current costs. The Godwins model assumes that workers and employers do not ever consider the effects of post retirement benefits on the real wage. The report speculates that, "Because FAS 106 increases the labor costs of employers who offer post-retirement health benefits, these employers will demand a smaller amount of labor at any given wage level of the wage rate.[42] But why will FAS 106 "increase the labor costs"? The fundamental Godwins assumption is that employers who pay these post-retirement benefits do not now consider them labor costs. This is an unbelievable leap of faith which they apply to all such firms in the economy. The report argues that implementation of FAS 106 will force them to recognize them as costs. In effect, Godwins assumes that firms will wake up and start laying off workers. This assumption is just plain wrong.

In fact Godwins' own data show the contradiction; the report utilized data from 830 employers who sponsor post-retirement plans and 170 employers who do not. The database is mostly firms with more than a 1000 employees each.[43] For each of the 850 employers, Godwins obtained:

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40. In paragraph 7 of the Order the FCC stated "the LECs' claim for exogenous treatment of costs attributable to FAS 106 accounting changes is based on complicated *econometric* analysis and reasoning." [emphasis added]. It is important to point out that the facts clearly show that the Godwins report is not an *econometric* analysis under any definition of the word.

41. Godwins May Response, page 3.

42. Godwins February Report, page 24.

43. Godwins February Report, page 15.

> detailed plan provisions which include for pre and post-65 coverage for each type of medical charge (surgery, hospital, physicians, drugs, etc.): eligibility requirements, deductible, coinsurance, out-of-pocket maximums, plan reimbursement maximums (annual and lifetime), required contributions for employee and dependant coverage, and Medicare integration.[44]

How is it possible that these employers provided all of this information to the database and yet do not consider them labor costs. The simple fact is that such costs are discounted as current and existing labor costs and the employers know it. The assumption of widespread changes in labor hiring based on a change in accounting is unfounded speculation.

Next, *the Godwins model incorrectly uses an outdated functional form to represent the production function for the economy*. One of the assumptions that the model makes concerns the functional form of the production function of the US economy. This relates the economy's output to labor and capital input. Thus Godwins model assumes that a Cobb Douglas model is correct and appropriate to steer their analysis.[45] This model was developed in 1928, *more than 60 years ago*, and was often used in empirical economic studies until the 1960's.[46] However, economists have learned from empirical analysis of the data that (a) the structure of the Cobb Douglas form is far too restrictive to measure changes in the US economy, and b) the empirical statistical studies using actual macroeconomic data show that the model is rejected. A recent econometric textbook notes:

> Although the [Cobb-Douglas] production was useful for the particular labor value share application that was of interest to Cobb and Douglas, other economists who were more interested in measuring substitution elasticities among inputs found the form too restrictive.[47]

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44. Godwins February Report, page 15.

45. The Cobb Douglas Production Function is $Q = K^aL^b$, where Q is economic output, L is labor input, and K is capital input and where a and b are coefficients to be estimated from economic data.

46. Cobb, Charles and P. Douglas, "A Theory of Production", *American Economic Review*, Supplement to Volume 18, 1928, 139-165.

47. E. Berndt, *op. cit.*,p. 452.