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The Cost Approach
Unitary vs. Non-Unitary Differences

By
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Bio – Carl Hoemke

Carl Hoemke is currently a Vice President and General Manager of Property Tax at Avalara, Inc. Mr. Hoemke specializes in valuing businesses, tangible, and intangible assets. Mr. Hoemke has handled issues involving the valuation for financial reporting, fairness opinions, bankruptcy, corporate disputes, and tax reporting and dispute related matters. He has experience in a variety of industries including, telecommunications (i.e., cable, wireline, and wireless infrastructure and businesses), real estate (commercial and industrial), regulated and independent power facilities (i.e., wind, geothermal, nuclear, natural gas, coal, and hydro power), air transportation (i.e., passenger carriers, cargo carriers and fleet valuations), and manufacturing (i.e., cement plants and automotive assembly plants).

Carl has also valued tangible and intangible corporate property for state and local property tax purposes. He has developed methods for determining cost of capital, physical depreciation using “technology substitution”, functional and external obsolescence using “replacement plant” benchmarking. Mr. Hoemke is an author and has also appeared as an expert witness for several matters involving the valuation of business and assets.

Prior to joining Avalara, Mr. Hoemke spent over thirty years in asset and business valuation advisory, and technology consulting, most recently as a Partner at Valentiam Group, Managing Director at Duff & Phelps, Managing Director at Standard & Poor’s, and Partner at Ernst & Young. Carl founded the tax technology firm, CrowdReason, in 2014. Mr. Hoemke started his career as an Industrial and Utility Appraiser at Taylor County Assessor's office in Abilene, Texas.

Mr. Hoemke holds a designation with the American Society of Appraisers as an Accredited Senior Appraiser (ASA) in Business Valuation. Carl received his B.A., Business Administration, Finance, from Abilene Christian University.

Bio – Mike Connolly

Mike Connolly is currently the Assistant Director for the North Carolina Department of Revenue Local Government Division. Prior to this position, he was the manager of the Public Service Company Section where he was responsible for overseeing all appraisals of Public Service Companies, allocation of values to the taxing districts and the annual Sales Assessment Ratio Study for all 100 counties in North Carolina.

Prior to Michael's current role at the North Carolina Department of Revenue, he worked as an auditor, auditing Business Personal Property taxes and a real estate appraiser for two local North Carolina Counties. Mr. Connolly is a past president of the National Conference of Unit Value States (NCUVS) and Southern Association of State Property Tax Administrators (SASPTA).

Mr. Connolly holds a Bachelor of Science Degree in Textile Materials Science from North Carolina State University.

Bio – Gary Hunter

Gary Hunter is an Assistant Vice President of Tax with AT&T located in Dallas, TX. Mr. Hunter is responsible for all property tax matters for AT&T. Mr. Hunter has been with AT&T since 2011 and has nearly 30 years of progressive experience in valuation, tax, financial analysis, accounting, and management.

Prior to joining AT&T, Mr. Hunter was a Director for Duff & Phelps Property Tax Practice where he was responsible for managing many complex valuation and appraisal projects. Previously, Mr. Hunter was a Director with PricewaterhouseCoopers' Property Tax Practice and was the National Team Leader for its Complex Manufacturing Property Tax Group. He was also the West Regional State & Local Tax Manager for Georgia-Pacific Corporation.

Mr. Hunter received his B.A. in Accounting from the University of Portland and his M.B.A. from the University of Washington. Gary is a Certified Public Accountant holds the Appraisal designations of ASA from the American Society of Appraisers and an ABV from the American Institute of CPA's. Gary is also a veteran having served in the U.S. Army.

Agenda

- I. Introduction
- II. Unitary Property - Definition
- III. The Premise of the Unitary Cost Approach
- IV. Unitary Assessment Cost Approach Challenges
- V. Sample Case Study (Abbott, Baker, Charley)
 - Balance Sheet & Cash Flow Metrics
 - Income Statement Metrics
 - The typical Unitary Cost Approach
 - The Non-Unitary Assessment Cost Approach
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- VI. Challenges of the Non-Unitary Cost Approach
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Introduction

- Unit Valuation - born out of the era of when “utilities” were being regulated when utilities were allowed to earn a rate of return on their rate base (i.e., historical asset base less depreciation).
- Today, many of those “utility” companies no longer are operating in a rate base regulated environment.
- In turn, the “rate-based” unitary valuation methodologies historically used to appraise those companies may not be the best valuation methodologies to appraise the assets of those companies today.
 - This is particularly true in valuing the tangible assets using the Cost Approach (e.g., RCNLD vs. HCLD vs.)
- As such, how does this potentially influence the methodology that should be used to appraise the tangible assets using the Cost Approach?
- In this session, Carl will address this, as well discuss when a RCNLD appraisal should be used today to appraise the tangible assets of a company and contrast it to some of the more traditional unitary cost approach appraisal methodologies.

Unitary Property - Definitions

General Definition

- Operating property that is centrally assessed by the State
- Property that operates as a unit across county lines, if the values must be apportioned among more than one county or state
- Typically, unitary property consists of Telecommunication, Energy, and Transportation companies.

Currently or Formerly Rate Based Regulated Companies

Telecommunication properties (Formerly)

- Local exchange carriers, local access providers or long-distance carriers.
- Sometimes includes cellular telephone companies
- Rarely include Broadband companies (i.e., Cable companies).

Energy properties

- Pipelines both intra/interstate natural gas, natural gas distribution companies, liquid petroleum products (Formerly)
- Regulated Electric Utilities with generation, transmission, or distribution operating property.
- Sometimes include unregulated electric generation (i.e., merchant plants, cogeneration, renewable) (Formerly)

Transportation properties

- Airlines, air charter services, air contract services, including major and small passenger carriers and major and small air freighters, long haul and short line railroads, and other similar properties. (Formerly)

The premise of the Unitary Cost Approach

- The relationship between regulators and utilities is often described as the **regulatory compact**. In return for government regulators granting exclusive service territories and setting rates in a manner that provides an *opportunity for a reasonable return on investment*, investor-owned public utilities submit their operations to full regulation
- The exact details are determined by a long history of laws, regulatory decisions, and court outcomes. General provisions include:
 - The regulator grants the utility an exclusive service territory
 - The utility has an obligation to serve all customers within that territory
 - Rates are set to give the utility the opportunity to earn a fair return on shareholders' investment commensurate with the risk of investing in the utility
 - The utility agrees to full scrutiny of its costs and operations by the regulators
 - Substantial facility investments by the utility require the regulator's approval

How Regulated Companies Derive Earnings

Rate Base - Revenue Allowance and Price

Label	Financial Metric	Result	Formula
A	Investment	1,000,000	Given
B	Useful Life (years)	20	Market
C	Straight Line Dep	50,000	A/B
D	Allowed Return on Investment	9%	WACC
E	Allowed NOI	90,000	D x A
F	OPEX	300,000	Given
G	Allowed Debt cost % of Investment	6.00%	Market
H	Debt Capitalization	50.00%	Market
I	Annual Debt Cost (Pre-tax)	30,000	G x H x A
J	Net Income	60,000	E - I
K	Equity Capitalization	50%	Market
L	Allowed Return on Equity	12%	Market
M	Income Tax	20%	Market
N	Allowed Taxable Income	75,000	j / (1-M)
O	Income Tax	15,000	M x N
P	Revenue Allowance	455,000	C + E + F + O
Q	Normal Units of Production	50,000	Given
R	Average Price per unit	9.10	P / R

Normalized Income Statement

Label	Financial Metric	Result	Formula
S	Units of Production	50,000	Q
T	Average Price Per Unit	9.10	R
U	Revenue	455,000	S x T
V	OPEX	300,000	F
W	Operating Income	155,000	U - V
X	Depreciation	50,000	C
Y	Interest	30,000	I
Z	Taxable Income	75,000	W - X - Y
AA	Income Tax	15,000	Z x M
AB	Net Income	60,000	A - AA
AC	NOI	90,000	AB + Y

Adequate Return on Investment Check

AD	NOI	90,000	AC
AE	Cap Rate	9%	D
AF	Rate Base / Value	1,000,000	AD / AE

The premise of the Unitary Cost Approach (cont.)

- Earnings (Net Operating Income) are fundamentally based on rate base
- Rate Base, or in some form, is typically viewed as the scope of the taxable assets
- Rate base x Allowed Rate of Return = Net Operating Income (NOI)
- Conversely, $\text{NOI} / \text{Allowed ROR} = \text{Rate base}$
- Normalized Return on Rate Base are typically normalized by looking back at a 5-year average return to determine obsolescence – this on a case-by-case basis
- Some Assessors make further adjustments to arrive at the taxable value of the assets (i.e., deferred tax liability and operating lease expenses)
- In general, the short form of a single year capitalization formula is similar
 - $\text{Income} / \text{Rate} = \text{Value}$
 - $\text{NOI} / \text{Allowed Rate} = \text{Rate Base (with obsolescence)}$

Unitary Assessment Cost Approach Challenges

- Extending unitary assessment methods to properties no longer subject to rate-based regulation
- Is this approach too formulaic to properly account for exceptions?
- It can create imperfect allocation methods (**i.e., Book Value**)
- Obsolescence is driven by the Income Approach and erroneously leads to one approach to value
- The method can create uniformity challenges

Sample Case Study – Balance Sheet & Cash Flow Metrics

	Companies			Description of Differences
	Exactly comparable businesses, assets, and markets but differing transaction histories.			
	Abbott	Baker	Charley	
	<i>Never has had a transaction.</i>	<i>Had a transaction a few years ago.</i>	<i>A transaction was effective on the lien date.</i>	
Financial Metrics				Description of Differences
<i>Balance Sheet</i>				
Working Capital (Non debt CA-CL)	\$ 39,375	\$ 39,375	\$ 39,375	NA
Historical Cost of PP&E	\$ 1,100,000	\$ 900,000	\$ 500,000	Differing transaction histories impact Book Value
Accum Dep	\$ 330,000	\$ 180,000	\$ -	Differing transaction histories impact Accumulated Depreciation
Net Book (NB)	\$ 770,000	\$ 720,000	\$ 500,000	Differing transaction histories impact Net Book Value
Useful Life of PP&E	20	18	14	Useful life varies based upon original age of asset
GAAP Intangible Assets	\$ -	\$ 20,000	\$ 50,000	Intangible assets are generally only created in a transaction
Useful Life of Intangibles	\$ 5	\$ 5	\$ 5	
Total Assets (Excluding WC)	\$ 770,000	\$ 740,000	\$ 550,000	Differing transaction histories impact Book Value
<i>Cash Flow Statement</i>				
Maintenance CAPEX	\$ 60,711	\$ 60,711	\$ 60,711	NA

Sample Case Study – Income Statement Metrics

	Companies			Description of Differences
	Exactly comparable businesses, assets, and markets but differing transaction histories.			
	Abbott	Baker	Charley	
	<i>Never has had a transaction.</i>	<i>Had a transaction a few years ago.</i>	<i>A transaction was effective on the lien date.</i>	
Financial Metrics				Description of Differences
<u>Income Statement</u>				
Revenue	\$ 433,500	\$ 433,500	\$ 433,500	NA
OPEX	\$ 315,000	\$ 315,000	\$ 315,000	NA
EBITDA	\$ 118,500	\$ 118,500	\$ 118,500	NA
GAAP Dep & Amort	\$ 55,000	\$ 54,000	\$ 45,714	Depr. base differs due to trans. histories (HC Incl Intang @ 20 yr life)
GAAP Tax	\$ 12,300	\$ 12,400	\$ 13,897	Driven on depreciation base and interest cost differences
NOI	\$ 51,200	\$ 52,100	\$ 58,889	Different due to depreciation and tax impacts
Debt Interest	\$ 2,000	\$ 2,500	\$ 3,300	Interest cost differs due to timing on debt financing
Net Income	\$ 49,200	\$ 49,600	\$ 55,589	Different due to depreciation, interest, and tax impacts

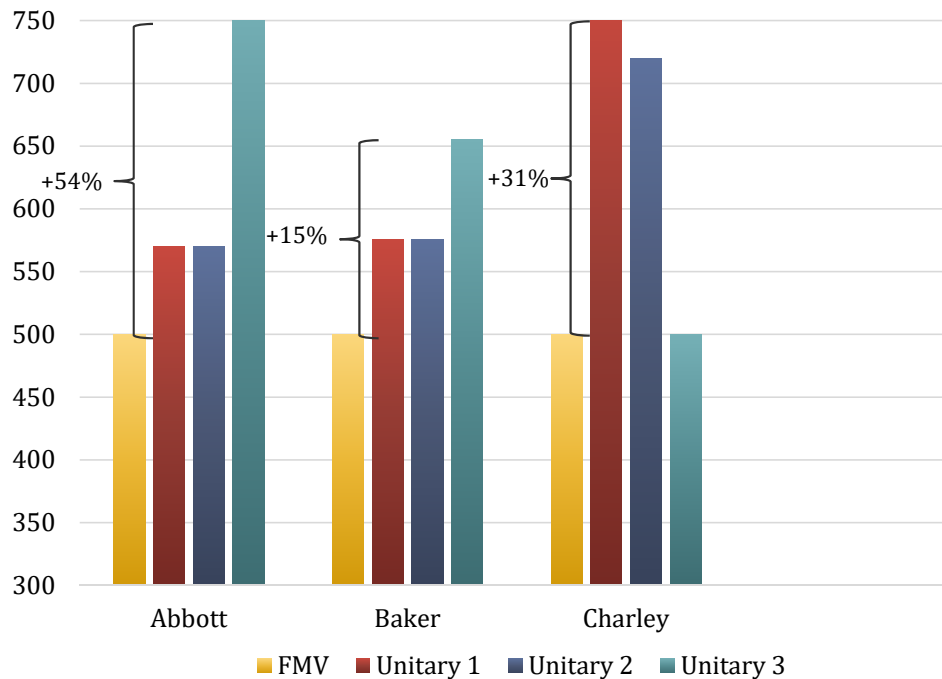
Sample Case Study – The Typical Unitary Cost Approach

	Companies			Description of Differences
	Exactly comparable businesses, assets, and markets but differing transaction histories.			
	Abbott	Baker	Charley	
	<i>Never has had a transaction.</i>	<i>Had a transaction a few years ago.</i>	<i>A transaction was effective on the lien date.</i>	
Financial Metrics				
Historical Cost Less Depreciation				
Net Book Value	\$ 770,000	\$ 720,000	\$ 500,000	Differing transaction histories impact Net Book Value
NOI (Income to Capitalize)	\$ 51,200	\$ 52,100	\$ 58,889	Different due to depreciation and tax impacts
Return on Net Book	6.65%	7.24%	11.78%	Differing transaction histories, dep. and tax impacts
Required Return on Net Book	9.00%	9.00%	9.00%	NA
Return on Net Book / Required Return	74%	80%	131%	Differing transaction histories, dep. and tax impacts
Obsolescence % Good				
Option 1	74%	80%	100%	Cap obsolescence %Good at 100%
Option 2	74%	80%	131%	No cap on obsolescence
Option 3	100%	100%	100%	No adjustment for obsolescence
Valuation Conclusions - Cost Approach				
Option 1	\$ 569,800	\$ 576,000	\$ 500,000	Cap obsolescence %Good at 100%
Option 2	\$ 569,800	\$ 576,000	\$ 655,000	No cap on obsolescence
Option 3	\$ 770,000	\$ 720,000	\$ 500,000	No adjustment for obsolescence

Sample Case Study – The Non-Unitary Cost Approach

	Abbott	Baker	Charley	
	<i>Never has had a transaction.</i>	<i>Had a transaction a few years ago.</i>	<i>A transaction was effective on the lien date.</i>	
Financial Metrics				Description of Differences
Replacement Cost New Approach				
Capacity	60,000	60,000	60,000	Exactly similar demand
Cost of Capacity (Per unit at scale)	\$ 16.67	\$ 16.67	\$ 16.67	Exactly similar market price
Total Installed Cost	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	Same installed cost
Normal Depreciation				
Average Useful Life	20.00	20.00	20.00	Same assets
Average age	6.00	6.00	6.00	Same age
Percent Good	74.0%	74.0%	74.0%	Same physical condition
RCN Less Normal Depreciation	\$ 740,000	\$ 740,000	\$ 740,000	
Functional Obsolescence				
Performance Factor	0.888	0.888	0.888	Each plant has the same functionality
RCN Less Physical & Functional Dep.	656,818	656,818	656,818	Each plant has the same functionality
External Obsolescence				
- Market Return on New Investment	6.85%	6.85%	6.85%	Each plant has the same market influence
- Required Return on New Investment	9.00%	9.00%	9.00%	NA
Market Performance	0.761	0.761	0.761	Each plant has the same market influence
RCNLD of Property, Plant, & Equipment	499,911	499,911	499,911	
Market to Net Book Factor	0.649	0.694	1.000	Varies due to FMV in relationship to Book Value

Sample Case Study - The Key Differences and Sources of Errors



Abbott and Baker

- Legacy debt and book costs driving income tax, accounting for intangibles, and book depreciation are not equal to Normalized Maintenance CAPEX.

Charley

- Book depreciation not equal (lower) to Normalized Maintenance CAPEX.

Challenges of the “Non-Unitary” Cost Approach



CALCULATING THE
REPLACEMENT COST NEW



ESTIMATING EFFECTIVE AGE




UNDERSTANDING
EFFICIENCIES OF NEW
PLANTS AND QUANTIFYING
FUNCTIONAL OBSOLESCENCE



DETERMINING MARKET
EQUILIBRIUM PRICE AND
DEMAND TO MEASURE
ECONOMIC OBSOLESCENCE

Replacement Cost New Sources

 Handy Whitman / BLS (Various Industries) – Adjust RCN not layered HC


 Marshall & Swift (Various Industries)

 RSMeans (Telecommunications, Electric)

 Taxpayer data (All)

 Energy Information Administration (EIA) Annual Energy Outlook (Oil, Gas, Electric)

 Consultants (i.e., CostQuest Associates for Telecommunications)

 Other Industry Publications (i.e., Oil & Gas Journal – Pipeline/Refinery)

Energy Information Association – Generation \$RCN/KW

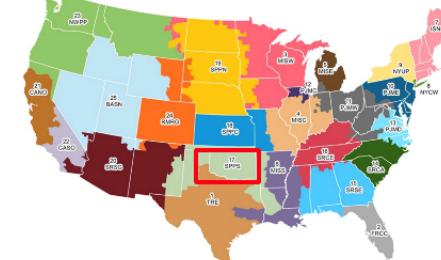
Replacement Plant Overnight Capital Cost Support

in \$ unless otherwise noted

Source: EIA, "Assumptions to the Annual Energy Outlook 2021: Electricity Market Module", February 2021
 Source URL: <https://www.eia.gov/outlooks/aeo/assumptions/pdf/electricity.pdf>
 Source Page: Page 7, Table 4

Technology	14 SRCA	15 SRSE	16 SRCE	17 SPPS	18 SPPC	19 SPPN	20 SRSB	21 CANO
Ultra-supercritical coal (USC)	3,533	3,586	3,634	3,557	3,779	3,597	3,748	NA
USC with 30% CCS	4,454	4,496	4,563	4,466	4,713	4,508	4,703	NA
USC with 90% CCS	5,852	5,904	5,974	5,821	6,117	5,863	6,098	NA
CC—single shaft	993	1,005	1,036	1,004	1,066	995	978	1,432
CC—multi shaft	872	883	915	882	947	874	842	1,259
CC with 90% CCS	2,424	2,437	2,492	2,428	2,509	2,391	2,212	2,774
Internal combustion engine	1,776	1,781	1,812	1,763	1,858	1,781	1,798	2,155
CT—aeroderivative	1,071	1,081	1,121	1,079	1,155	1,087	981	1,381
CT— industrial frame	649	655	680	654	701	658	594	844
Fuel cells	6,853	6,848	6,942	6,728	7,010	6,789	6,884	7,887
Nuclear—light water reactor	6,390	6,340	6,546	6,135	6,487	6,133	6,361	NA
Nuclear—small modular reactor	6,600	6,651	6,802	6,584	6,993	6,640	6,728	NA
Distributed generation—base	1,432	1,449	1,493	1,448	1,536	1,434	1,409	2,064
Distributed generation—peak	1,717	1,732	1,797	1,729	1,852	1,741	1,572	2,213
Battery storage	1,203	1,186	1,201	1,159	1,167	1,153	1,180	1,213
Biomass	3,934	3,963	4,016	3,937	4,183	4,020	4,305	5,515
Geothermal	NA	NA	NA	NA	NA	NA	2,825	2,802
MSW—landfill gas	1,539	1,541	1,568	1,525	1,605	1,539	1,555	1,857
Conventional hydropower	1,904	4,130	2,135	4,086	1,722	1,619	3,282	3,473
Wind	1,512	1,713	1,268	1,395	1,395	1,395	1,395	2,799
Wind offshore	4,907	NA	NA	NA	NA	NA	NA	8,224
Solar thermal	NA	NA	NA	6,934	7,203	6,864	7,193	8,473
Solar PV with tracking	1,251	1,188	1,228	1,190	1,237	1,199	1,211	1,348

Figure 1. Electricity Market Module regions



Source: U.S. Energy Information Administration

U.S. Energy Information Administration | Assumptions to the Annual Energy Outlook 2021: Electricity Market Module

The RCNLD

Cost Approach			
RCN Support			
in \$ unless otherwise noted			Exhibit 5
<u>Description</u>	<u>Metric</u>		<u>Reference</u>
1 CC—multi shaft	1,114.7	MW (Nominal/Nameplate)	Workpaper 1
2 CC—multi shaft (SPPS)	857	\$/Nameplate KW (Excludes IDC)	Workpaper 2
3 RCN of Reference Plant	955,206	(in thousands)	
4 Size of Subject Plant (Winter Capacity)	1,214.0	MW (Nameplate)	Plant Size
5 Scale Factor (a)	0.60		
6 Size-adjusted Overnight RCN	1,015,441	(in thousands)	
7 AFUDC/IDC	7.00%		Workpaper 3
8 Adjusted RCN	1,086,522	(in thousands)	
9 Depreciation % (b)	35.0%		Workpaper 4
10 Depreciation \$	380,283	(in thousands)	
11 RCNLPD	706,239	(in thousands)	
12			
13			
14 Notes:			
15 (a) Chilton, C. H., "Six-Tenths Factor Applies to Complete Plant Costs," Chemical Engineering, April 1950.			
16 (b) Based on Average 35 year life and 18 year age; table indicates 18 year RUL and 65 Percent Good.			

Efficiencies / Operating Costs

Replacement Plant Size & Heat Rate Support

in \$ unless otherwise noted

Source: EIA, "Assumptions to the Annual Energy Outlook 2021: Electricity Market Module", February 2021
 Source URL: <https://www.eia.gov/outlooks/archive/aeo21/assumptions/pdf/electricity.pdf>
 Source Page: Page 6, Table 3

Table 3. Cost and performance characteristics of new central station electricity generating technologies

Technology	First available year ¹	Size (MW)	Lead time (years)	Base overnight cost ² (2020 \$/kW)	Techno-logical optimism factor ³	Total overnight cost ^{4,5} (2020 \$/kW)	Variable O&M ⁶ (2020 \$/MWh)	Fixed O&M (2020\$/kW-yr)	Heat rate ⁷ (Btu/kWh)
Ultra-supercritical coal (USC)	2024	650	4	3,672	1.00	3,672	4.52	40.79	8,638
USC with 30% carbon capture and sequestration (CCS)	2024	650	4	4,550	1.01	4,595	7.11	54.57	9,751
USC with 90% CCS	2024	650	4	5,861	1.02	5,978	11.03	59.85	12,507
Combined-cycle—single shaft	2023	418	3	1,082	1.00	1,082	2.56	14.17	6,431
Combined-cycle—multi shaft	2023	1,083 (a)	3	957	1.00	957	1.88	12.26	6,370
Combined-cycle with 90% CCS	2023	377	3	2,471	1.04	2,570	5.87	27.74	7,124
Internal combustion engine	2022	21	2	1,813	1.00	1,813	5.72	35.34	8,295
Combustion turbine— aeroderivative ⁸	2022	105	2	1,169	1.00	1,169	4.72	16.38	9,124
Combustion turbine—industrial frame	2022	237	2	709	1.00	709	4.52	7.04	9,905

Functional Obsolescence

- Calculate Actual Returns on Normally Depreciated Plant Investment (AROI)
- Calculate Market Returns on Optimal New Investment (MROI)
- Compare (AROI/MROR)

Normalized Income Statement For Existing Plant			
Label	Financial Metric	Result	Formula
AI	Units of Production	50,000	Q
AJ	Market Price per Unit	\$ 8.67	T
AK	Market Revenue	\$ 433,500	AI x AJ
AL	OPEX of Subject Plant	\$ 315,000 (New Plant + 5%)	
AM	Market Operating Inc.	\$ 118,500	AK-AL
AN	Market Depreciation	\$ 50,000	C
AO	Interest	\$ 30,000	I
AP	Taxable Income	\$ 38,500	AM-AN-AO
AQ	Income Tax	\$ 7,700	AP x M
AR	Net Income	\$ 30,800	AP - AQ
AS	Plant NOI	\$ 60,800	AR+AO
Functional Obsolescence			
AT	Subject Plant NOI	\$ 60,800	AS
AU	New Plant NOI	\$ 68,500	AD
AV	Functional Obsolescence	0.888	AT/AU

Note: Assumes Both New and Subject Plant are Producing at Expected Utilization but the Market Price is lower than required.

Note: Assumes CAPEX is equal to Market Depreciation

Equilibrium Price

- Follow market price derivation techniques (mimic regulation)
- Calculate
- Utilize other government publications (i.e., EIA reference price for new power plants)
- Derive Conclusion on price, supply, and demand

Required Price and Utiliz. to Achieve a Market Rate of Return			
Label	Financial Metric	Result	Formula
A	Replacement Cost New	\$ 1,000,000	Given
B	Useful Life (years)	20	Market
C	Straight Line Dep	\$ 50,000	A/B
D	Required Return on Investment	9%	WACC
E	Required NOI	\$ 90,000	D x A
F	OPEX of New Plant	\$ 300,000	Given
G	Required Debt cost % of Invest.	6.00%	Market
H	Debt Capitalization	50.00%	Market
I	Annual Debt Cost (Pre-tax)	\$ 30,000	G x H x A
J	Net Income	\$ 60,000	E - I
K	Equity Capitalization	50%	Market
L	Allowed Return on Equity	12%	Market
M	Income Tax	20%	Market
N	Taxable Income for New Plant	\$ 75,000	j / (1-M)
O	Income Tax	\$ 15,000	M x N
P	Required Revenue	\$ 455,000	C + E + F + O
Q	Normal Units of Production	50,000	Given
R	Average Required Price per unit	\$ 9.10	P / R

External Obsolescence

- Calculate Market Returns on Optimal New Investment (MROI)
- Calculate Required Rate of Returns on Optimal New Investment (RROR)
- Compare (MROI/RROR)

Normalized Income Statement For New Plant			
Label	Financial Metric	Result	Formula
S	Market Units of Production	50,000	Q
T	Market Price per Unit	\$ 8.67	Market
U	Market Revenue	\$ 433,500	S x T
V	OPEX of New Plant	\$ 300,000	F
W	Market Operating Inc.	\$ 133,500	U - V
X	Market Depreciation	\$ 50,000	C
Y	Interest	\$ 30,000	I
Z	Taxable Income	\$ 53,500	W - X - Y
AA	Income Tax	\$ 15,000	Z x M
AB	Net Income	\$ 38,500	Z - AA
AC	Market NOI	\$ 68,500	AB + Y
Adequate Return on Investment Check			
AD	Market NOI	\$ 68,500	AC
AE	Required NOI	\$ 90,000	D
AF	Market ROI	6.85%	AF/A
AG	Required ROI	9.00%	AE/A
AH	External Obsolescence	0.761	AF/AG

Note: Assumes Both New and Subject Plant are Producing at Expected Utilization but the Market Price is lower than required.

Note: Assumes CAPEX is equal to Market Depreciation

What Industries or Companies are Impacted?

- High Tech (i.e., Telecom / Cable (when Centrally Assessed))
- Unregulated Electric Power
- Pipeline companies
- Airlines
- Railroads
- Any company not rate based regulated
- Any company that its intangible assets are not booked or do not represent the fair market value.
- Ok, all companies and industries can be impacted

Typical Challenges Assessor Mention

If we used a different method than the unitary approach, we would not be uniform and equal so we cannot make an exception for you

We do not have the information or tools available to modify our processes to forecast income, make complicated adjustments for income tax, or to value intangibles

This approach is not reliable because it requires too many hard-to-get variables whereas the typical Unitary approach is simpler and easier to administer

Our regulations and statutes would not allow us to modify our approach

What are other challenges or reasons for not using?

Assessor Recognition

- Some State & Local Assessors are recognizing RCNLDs

Thought Provoking Questions – Open Forum

- Is this approach also applicable to Rate Base Regulated Utilities?
- Could State and Local Assessors Create RCN Schedules?
- Is the burden on the taxpayer or the assessor to identify when the Replacement cost is an exception to the traditional Unitary approach?
- What tools / information would be helpful to provide unitary property assessors to assist with valuing properties in a more traditional business value appraisal approach?
- What are the possible solutions to facilitate change?
- What are other observations?

Thank you!

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