The Identification and Quantification of Nonsystematic and Multitier Valuation Adjustments

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Robert F. Reilly
Managing Director
Willamette Management Associates
Chicago, Illinois
rfreilly@willamette.com
www.willamette.com

The Identification and Qualification of Nonsystematic and Multitier Valuation Adjustments

Discussion Outline

- Systematic valuation adjustments
- Nonsystematic valuation adjustments
- Multitier valuation adjustments
- Benchmarks for valuation adjustments
- Explicit methods to quantify valuation adjustments
- Implicit methods to quantify valuation adjustments
- Common errors regarding valuation adjustments
- Questions and discussion

Systematic Valuation Adjustments

- Relate to the legal and economic features of the subject business/security interest
- Generally not specific to individual company, individual security/contract interest, or individual ownership structure
- Systematic adjustments are present in most business/security valuations
- Principally relate to level of value:
  - Ownership control/lack of control
  - Marketability/lack of marketability
- Systematic valuation adjustments influenced by:
  - Legal and/or economic characteristics of subject interest
  - Selected standard of value
  - Selected premise of value
- Not the principal subject of this discussion, but systematic adjustments should be considered in most business/security valuations.

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Systematic Valuation Adjustments
Illustration of Levels of Value

Valuation Subject	Marketability Element	Level of Value	Control Element
Business Enterprise Level	Liquid	Strategic Investor Acquisition	Strategic Ownership
		↑ Strategic/synergistic price premium	
	Liquid	Financial Investor Acquisition	Ownership Control
		Illiquidity discount ↓	
	Illiquid	Business Enterprise Value (to current owners)	Ownership Control
		↑ Control premium ↓ Discount for lack of control	(broad spectrum of control influences)
Security Level	Marketable	Public Stock Value (as if "freely traded" value)	Noncontrolling
	(broad spectrum of marketability influences)	Discount for lack of marketability ↓	
	Nonmarketable	Closely Held Stock Value (not publicly traded stock)	Noncontrolling
		Discount for transferability restrictions ↓	
	Restricted	Restricted Closely Held Stock (subject to contractual transfer restrictions)	Noncontrolling

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Nonsystematic Valuation Adjustments

- Specific to the individual company, individual security/contract interest, or individual ownership structure
- Nonsystematic adjustments are not present in all business/security valuation
- Analysts should consider the application of these adjustments in each business/security valuation
- Principally relate to three categories of adjustments:
  - Company-specific adjustments
  - Security-specific adjustments
  - Contract-imposed adjustments

Company-Specific Nonsystematic Adjustments

Company-specific adjustments relate to facts and circumstances specific to the subject company/business entity.

Common examples include:

1. discount for key person dependence
2. discount for key customer dependence
3. discount for key supplier dependence
4. discount for key product/technology dependence
5. discount for suboptimal capital structure
6. discount for suboptimal cost of capital

Security-Specific Nonsystematic Adjustments

Security-specific adjustments relate to facts and circumstances specific to the subject security interest or block of stock.

Common examples include:

1. discount for lack of voting rights
2. premium for supervoting rights
3. blockage discount
4. discount for lack of preemptive rights

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Contract-Imposed Nonsystematic Adjustments

Contract-imposed adjustments relate to facts and circumstances that are imposed on the subject security by the influences of a contract, agreement, regulation, or covenant.

Common examples include:

1. stock subject to the buy-sell provisions of a shareholder agreement
2. restricted publicly traded stock
3. founder, letter, or other unlisted stock of a listed company
4. family limited partnership (FLP) units subject to a partnership agreement; limited liability company (LLC) units subject to an LLC agreement.

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Multitier Nonsystematic Adjustments

Relate to facts and circumstances that are specific to the ownership structure of the subject business/security interest.

Common examples include:

1. closely held corporation (CHC) stock owned by an FLP
2. nonconsolidated CHC stock owned by CHC
3. any multitier ownership where a distribution will trigger the recognition of capital gains
4. a fractional or partial property ownership interest inside a CHC or FLP

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Benchmarks for Valuation Adjustments

- Valuation adjustments are made to reach a value conclusion. They are not discounts/premiums from a value conclusion to reach a discounted/inflated value.
- First, for both systematic and nonsystematic adjustments, analysts should understand the conditions of value indications/baselines from each valuation approach and method used.
- Second, analysts should identify conditions in the valuation subject that are different from conditions in the value indications/baselines.
- Third, these differences in conditions may be different for each value indication/baseline-i.e. for each valuation approach and method used.
- Fourth, when differences are identified, analysts should adjust each value indication/baseline to the valuation subject.
  - The adjustment for each indication/baseline may be different
  - Some indications/baselines may not need to be adjusted
  - Adjust the indication/baseline to the subject-not the subject to the indication/baseline
- Fifth, valuation adjustments may be explicit (i.e. a discrete value increment/decrement) or implicit (i.e. selection of pricing multiple, discount/capitalization rate, etc.)

Caveats for Valuation Adjustments

- If value indication/baseline experiences same condition as valuation subject, then no adjustment is necessary.
- A valuation adjustment may not be necessary (e.g. discount for key customer dependence) even if an adjustment condition exists (e.g. if the guideline companies also suffer from key customer dependence).
- Magnitude of adjustments may vary between valuation approaches/methods; one approach/method may need an adjustment, another approach/method indication may not.
- Don’t apply both an explicit adjustment (e.g. 10% discount) and an implicit adjustment (e.g. select lowest quantile pricing multiple) for the same condition.
- Explicit adjustments may be either % adjustments or $ adjustments.
- Systematic adjustments more affected by selected standard/premise of value (e.g. fair value valuations may involve no level of value adjustments); nonsystematic adjustments more affected by specific facts & circumstances.

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List of Common Valuation Adjustments

Valuation Discounts Related to

Assignee ownership interest
Blockage (size) of public stock
Built-in capital gains taxes
Call options
Founder/letter/legend stock
Illiquidity (at business enterprise level)
Key customer dependence
Key person dependence
Key supplier dependence
Key technology dependence
Lack of dividend rights
Lack of marketability (at security level
Lack of ownership/operational control
Lack of preemptive rights
Lack of voting rights
Multitier ownership structure
Partial/fractional ownership interest
Right of first refusal
SEC Rule 144
Suboptimal capital structure
Suboptimal cost of capital
Transferability restrictions (contractual)
Unlisted stock of public company

Valuation Premiums Related to

Ownership/operational control
Put options
Strategic/synergistic benefits
Superliquidation preference
Supervoting rights

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Analogy to Obsolescence in Real/Personal Property Appraisal

- Common types of obsolescence
  - Physical-subject not as good as new benchmark
  - Functional-subject doesn't perform function for which it was designed
  - Technological-designed function has become obsolete
  - External-subject owner/operator can not earn cost of capital
    - Locational-due to change in neighborhood
    - Economic-due to change in industry/competition
- Common obsolescence appraisal adjustments
  - Cost approach
    - Cost to cure-capital expenditures
    - Cost to operate-capitalized excess operating costs
  - Income capitalization approach
    - Income deficiency-lower expected NOI
    - Increase discount/capitalization rate
  - Sales comparison approach
    - Adjust comparable sales (by % or $) to subject conditions
    - Paired sales analysis

Explicit Methods to Quantify Valuation Adjustments

There are numerous analytical procedures to quantify individual valuation adjustments. Conceptually, all procedures are grouped into four categories:

1. comparative empirical data regarding the valuation subject
2. comparative income data regarding the valuation subject
3. published empirical data regarding valuation guidelines/benchmarks
4. reliance on judicial/administrative guidance

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Comparative Empirical Data Method and Comparative Income Data Method

All procedures related to empirical data and empirical income methods involve three types of analyses:

1. estimate of the income shortfall related to the valuation discount; estimate of the income excess related to the valuation premium
2. estimate of the cost to cure the deficiency feature
3. paired sales analysis of (1) transactions with the subject discount/premium feature and (2) transactions without the subject discount/premium feature

Empirical data and empirical income methods rely on income, cost, or sales data extracted from the subject company in order to quantify the systematic or nonsystematic valuation adjustment.

Published Empirical Data Method and Judicial/Administrative Guidance Method

- Most empirical data studies compare sale prices of business/security with subject condition to sale prices of business/security without subject condition.
- Both sides of the paired sales analysis comparison relate to guideline company/security transactions.
- None of the data analyzed in published studies actually comes from the subject company/security.
- This factor does not invalidate this method, however.
- Many analysts naively select the mean or median published study conclusion as the appropriate valuation discount or premium.
- Judicial/administrative guidance method relies on published judicial precedent and administrative rulings (e.g., IRS audit settlement agreements).
- This method provides useful information as to the reasonable range of valuation discounts and premiums.
- Judicial precedent, IRS letter rulings and settlement agreements, and other administrative rulings are always fact-specific.

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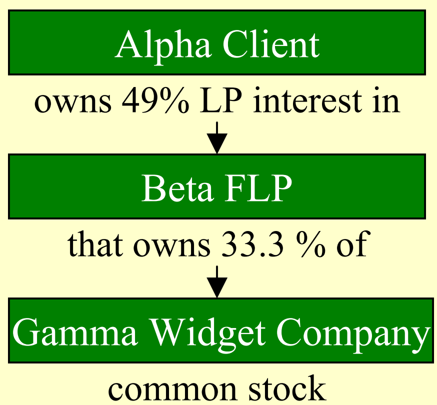
Implicit Methods to Quantify Valuation Adjustments

- Asset-based approach
  - Do not include values for certain intangible assets
  - Reduce values for certain intangible assets
  - Adjust intangible value in the nature of goodwill
    - Recognize cost of deficiency in income subject to capitalization
    - Reduced expected growth rate in income subject to capitalization
    - Increase rate of return on discrete tangible/intangible assets
    - Increase excess earnings direct capitalization rate
- Income approach-direct capitalization
  - Recognize cost of deficiency in income subject to capitalization
  - Reduce expected growth rate in income subject to capitalization
  - Increase direct capitalization rate
- Income approach-yield capitalization
  - Recognize cost of deficiency in income subject to capitalization
  - Reduce expected growth rate in income subject to capitalization
  - Increase present value discount rate
  - Increase terminal value direct capitalization rate
  - Decrease terminal value expected long-term growth rate
- Market approach
  - Guideline publicly traded company method
  - Guideline merged and acquired company method
    - Select guidelines that have subject condition, if possible
    - Select subject pricing multiples at lower/higher end of market-derived pricing range

Multitier Valuation Adjustments

- Entity that owns entity that owns assets/operations
- Systematic and nonsystematic adjustments may apply at each ownership level
- Example:



- What is FMV of Alpha Client’s equity interest?
- Valuation analysis
  - Start with bottom of ownership chart (operating company or non-operating assets)
  - Estimate cash equivalency value of each box on ownership chart- apply appropriate valuation adjustments to arrive at cash equivalency value
  - Move up the ownership chart using the net asset value method, where net asset in each lower box is cash
  - Use valuation adjustments/data sources appropriate to each box; don’t duplicate data sources
  - Value of top box is net asset value of cash equivalency of underlying boxes.

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Multitier Valuation Adjustment Example

- Preliminary value indication of 100% of Gamma Widget Company common stock, before adjustments, is $1 million
- Analyst concludes a $100,000 discount for key person dependence and a 10% discount for key product dependence
- FMV of 100% of Gamma common stock after two nonsystematic adjustments:

$1,000,000	preliminary value before adjustments
-100,000	key person dependence
900,000	subtotal
-90,000	key product dependence
$810,000	value of 100% Gamma equity

- FMV of Beta nonmarketable, noncontrolling interest in Gamma; analyst concludes 30% DLOC and 35% DLOM.

$810,000	value of Gamma marketable, control interest
-243,000	30% DLOC
567,000	subtotal
-198,000	35% DLOM
369,000	value of nonmarketable, noncontrol interest
x 33.3%	Beta 33.3% ownership of Gamma stock
$123,000	FMV of Beta ownership of Gamma stock

- FMV of Alpha nonmarketable, noncontrolling interest in Beta; analyst concludes 15% combined DLOC/DLOM

$123,000	value of 100% Beta equity
-18,000	15% DLOC/DLOM
105,000	value of nonmarketable, noncontrol interest
x 49%	Alpha 49% LP interest in Beta FLP
$51,000	FMV of Alpha 49% LP interest

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Multitier Valuation Adjustment Example Concluded

- Example conclusion:

$51,000 — Alpha Client 49% nonmarketable, noncontrolling LP interest in Beta FLP

$123,000 — Beta FLP 33.3% nonmarketable, noncontrolling interest in Gamma stock

$810,000 — 100% marketable, controlling equity interest in Gamma Widget Company

- Valuation summary
  - Value of each lower box is converted to a cash equivalency/cash proceeds value
  - Cash equivalency value in transferred to each higher box using asset-based approach, net asset value method
  - Value of subject interest (i.e. top box) is net asset value of cash proceeds distributed up the organization chart after FMV sale of each lower box.

Valuation Adjustment
Common Errors

1. Analysts should understand the valuation baseline/benchmark before applying adjustments.
2. Analysts should understand the economic influences of subject condition: does it affect investment risk and/or expected return?
3. Analysts should be not “double count” adjustments. e.g., discount for BIG tax may be a component of discount for lack of marketability.
4. When using alternative procedures to quantify adjustments, the lowest adjustment indication is most appropriate.
5. Analysts should not directly rely on published judicial precedent as sole basis of selecting specific adjustments.
6. Not all valuation methods/indications are subject to the same adjustment—or same magnitude of adjustment.
7. Application of adjustments is influenced by purpose and objective of the analysis as well as by subject company/security.
8. Analysts should be familiar with content and intent of published empirical studies before relying on such published studies.
9. Analysts should consider the time period covered in any published empirical adjustment study.
10. Analysts should consider the dispersion of the results reported in published empirical adjustment studies.

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Summary and Conclusion

- Systematic (level of value) vs. nonsystematic (company/security-specific) adjustments.
- Nonsystematic adjustments
  - Company-specific
  - Security-specific
  - Contract-imposed
  - Multitier
- Understand the conditions in the valuation benchmarks before applying adjustments
- Explicit vs. implicit methods to quantify adjustments
- Avoid common errors
- Apply rigorously analyzed and thoroughly documented adjustments
- Questions and discussion

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