The Cost/Asset Approach to Business Valuation

UNDERSTANDING THE APPROACH AND REVIEWING EXPERT REPORTS

INTRODUCTION
The Cost/Asset Approach to Business Valuation

INTRODUCTION

- Determination of value predicated upon assessment of each of company’s assets and liabilities on its historical financial statements
  - Tangible and intangible assets
  - Recorded and unrecorded assets and liabilities
    accounting principles

- Process converts GAAP-prepared historical balance sheet to an economic balance sheet
  - Reflects assets/liabilities on a fair market value basis (or some other applicable standard of value)
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INTRODUCTION

- Subtracting economic balance sheet liabilities from assets yields economic value of the equity of the company
  - Additional discounts and adjustments may be required
- Result of the process should be accurate indication of value

- Sometimes referred to as “cost” approach
  - Determine cost to develop assets
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INTRODUCTION

- Premise of Value
  - Going Concern
  - Liquidation
    - Orderly
    - Forced

Fundamental precept: an astute investor will not pay more for a collection of assets, net of liabilities, than the price for which those same assets could be purchased or constructed.
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INTRODUCTION

- Primary methodologies under Asset Approach:
  - Asset Accumulation Method
  - Excess Earnings Method
  - Rules of Thumb (asset-based)
  - Sellers Discretionary Cash Flow

- Popularity of approach due to simplicity of the methods available and familiarity of most users with balance sheet formats

- Due care is required in proper application and interpretation to avoid erroneous conclusions
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INTRODUCTION

- Approach not as useful for companies that have significant unrecorded intangible value
- Approach used most often as primary approach only where value of equity is based on value of underlying assets
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FUNDAMENTAL THEORY

- Assets and liabilities recorded on an historical cost basis do not coincide with fair market value
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FUNDAMENTAL THEORY

- IRS Revenue Ruling 59-60
  - Requires consideration of the Asset Approach
- AICPA SSVS No. 1
  - Asset Approach most applicable to companies where value of underlying assets best defines value of entity (i.e. holding companies or FLPs)

Other Issues

- Premise of Value
- Level of Value
- Marketability
- Built-in Gains
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FUNDAMENTAL THEORY

- Level of Value
  - Ability to influence operations and corporate actions
    - Control > 50
    - Noncontrol 50/50
    - Minority < 50

- Marketability
  - Ability to convert to cash quickly and safely
    - Marketable
    - Nonmarketable
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FUNDAMENTAL THEORY

- Built-In Gains
  - Inherent tax liability set forth in appreciated assets

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COST/ASSET APPROACH METHODOLOGIES
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COST/ASSET APPROACH METHODOLOGIES

- Asset Accumulation Method
  - Most common method
  - Also referred to as “Net Asset Method”
  - Encompasses fundamental concepts of the approach most directly

- Asset Accumulation Method – Application
  - Obtain balance sheet with information on or near the date of valuation
  - Adjust the balance sheet for GAAP basis
  - Adjust the assets and liabilities to reflect their current appraised values
  - Identify and quantify unrecorded assets and liabilities
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COST/ASSET APPROACH METHODOLOGIES

- Asset Accumulation Method – Application
  - Assess/quantify goodwill or other intangible value (if applicable)
  - Make necessary adjustments to reflect deferred income tax effect on any gains or losses
  - Adjust value for control and marketability discounts, if any are applied

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COST/ASSET APPROACH METHODOLOGIES

- Asset Accumulation Method – Example

<table>
<thead>
<tr>
<th>Historical Balance Sheet</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assets</strong></td>
</tr>
<tr>
<td>Cash</td>
</tr>
<tr>
<td>Accounts Receivable</td>
</tr>
<tr>
<td>Inventory</td>
</tr>
<tr>
<td>Building</td>
</tr>
<tr>
<td>Less: Accumulated Depreciation</td>
</tr>
<tr>
<td>Other Assets</td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>

| Accounts Payable         | $ 15,000        |
| Other Current Liabilities| $ 10,000        |
| Long Term Debt           | $ 20,000        |
| **Equity**               | **$ 15,000**    |
| **Total**                | **$ 60,000**    |
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COST/ASSET APPROACH METHODOLOGIES

- Asset Accumulation Method – Example

Economic Fair Market Value Balance Sheet

<table>
<thead>
<tr>
<th>Assets</th>
<th>Liabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash</td>
<td>$ 5,000</td>
</tr>
<tr>
<td>Accounts Receivable</td>
<td>20,000</td>
</tr>
<tr>
<td>Inventory</td>
<td>10,000</td>
</tr>
<tr>
<td>Building</td>
<td>15,000</td>
</tr>
<tr>
<td>Other Assets</td>
<td>20,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$ 70,000</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Liabilities</th>
<th>Assets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounts Payable</td>
<td>$ 15,000</td>
</tr>
<tr>
<td>Other Current Liabilities</td>
<td>10,000</td>
</tr>
<tr>
<td>Taxes Payable</td>
<td>6,000</td>
</tr>
<tr>
<td>Long Term Debt</td>
<td>20,000</td>
</tr>
<tr>
<td>Equity</td>
<td>19,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$ 70,000</strong></td>
</tr>
</tbody>
</table>

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COST/ASSET APPROACH METHODOLOGIES

- Excess Earnings Method
  - Hybrid of Asset Approach and Income Approach promulgated by the IRS
  - Also referred to as “Treasury Method,” “Formula Method” or “Excess Cash Flow Method”
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COST/ASSET APPROACH METHODOLOGIES

- Excess Earnings Method – Application
  - Determine rate of return required for investment in tangible assets, and apply appropriate portion of normalized earnings to net tangible asset value
  - Determine the portion of total normalized earnings in excess of earnings serving as return on tangible assets; “excess” earnings are attributed to intangible assets
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COST/ASSET APPROACH METHODOLOGIES

- Excess Earnings Method – Application
  
  - Excess earnings capitalized under a normal capitalized earnings method to produce fair market value of the intangible assets
  
  - Add fair market value of intangible assets to the fair market value of tangible assets to find fair market value of all invested capital

- Subtract long-term debt from the fair market value of all invested capital to get the fair market value of equity capital

- Adjust value for control and marketability discounts, if any are applied
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COST/ASSET APPROACH METHODOLOGIES

- Excess Earnings Method – Example

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net tangible asset value (fair market value less operating liabilities)</td>
<td>$10,000,000</td>
</tr>
<tr>
<td>Total normalized earnings</td>
<td>3,000,000</td>
</tr>
<tr>
<td>Rate of return – tangible assets – 12%</td>
<td>12% x $10,000,000</td>
</tr>
<tr>
<td>Normalized earnings to tangible assets</td>
<td>(1,200,000)</td>
</tr>
<tr>
<td>Excess normalized earnings</td>
<td>1,800,000</td>
</tr>
<tr>
<td>Attributable to intangible assets</td>
<td></td>
</tr>
<tr>
<td>Capitalization rate for intangible assets</td>
<td>30%</td>
</tr>
<tr>
<td>Fair market value of intangible assets</td>
<td>6,000,000</td>
</tr>
<tr>
<td>Fair market value of tangible assets</td>
<td>10,000,000</td>
</tr>
<tr>
<td>Fair market value of invested capital</td>
<td>16,000,000</td>
</tr>
<tr>
<td>Less: Long-term debt (assumed)</td>
<td>(12,000,000)</td>
</tr>
<tr>
<td>Fair market value of equity capital</td>
<td>$4,000,000</td>
</tr>
<tr>
<td>* On a control, marketable basis</td>
<td></td>
</tr>
</tbody>
</table>

- Rules of Thumb

  - Seller’s Discretionary Cash Flow
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TANGIBLE ASSET APPRAISALS

- Typically, separate appraisers used to determine value of real property and personal property
- Business valuators assemble the value of tangible assets and adds them to the value he/she determines for intangible assets to conclude on the overall business value

\[ \text{Tangible Assets} + \text{Intangible Assets} = \text{Overall Business Value} \]
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TANGIBLE ASSET APPRAISALS – REAL ESTATE

- Real estate vs. real property
- Real estate: land, all things that are a natural part of it and all things attached to it by people
- Real property: the bundle of rights inherent in the ownership of real estate

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TANGIBLE ASSET APPRAISALS – REAL ESTATE

- Types of interests
  - Fee simple estate
  - Leased fee estate
  - Leasehold estate
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TANGIBLE ASSET APPRAISALS – REAL ESTATE

- Standard of value
  - Market value
  - Value-in-use
  - Investment value
  - Going concern value
  - Insurable value
  - Liquidation value

- Highest and best use
  - Determine all legally-permissible uses
  - Determine which of these are physically possible
  - Determine which of these are financially feasible
  - Determine which of these produces the maximum profits for the site
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TANGIBLE ASSET APPRAISALS – REAL ESTATE

- Approaches to value
  - Cost approach – sum of land value at its highest and best use and value of improvements, less depreciation
  - Market (sales comparison) approach – assumes that a prudent buyer will pay no more than the cost to purchase a comparable property
  - Income (income capitalization) approach – capitalizes or discounts an income stream to produce a value

TANGIBLE ASSET APPRAISALS – M&E

- Not as location-specific as real estate
- Appraisers frequently have niche expertise
- Performed for a number of purposes
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TANGIBLE ASSET APPRAISALS – M&E

- Standard of value
  - Fair market value
  - Fair market value – removal
  - Fair market value in continued use
  - Fair market value - installed

- Premise of value
  - Orderly liquidation value
  - Forced liquidation value
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TANGIBLE ASSET APPRAISALS – M&E

- Approaches to value
  - Cost approach – appraiser computes “reproduction cost new” or “replacement cost new”
  - Market (sales comparison) approach – appraiser analyzes recent sales and current offerings, and considers depreciation and other allowances
  - Income approach – appraiser uses direct capitalization and discounted future cash flow methods

TANGIBLE ASSET APPRAISALS

- Final Thoughts
  - Credentialed appraisers are important
  - Appraisers will adhere to the standards related to due care, development and reporting
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BUILT-IN GAINS TAX

- Problem for C corporations
- Willing buyer likely to alter offer price due to tax liability associated with appreciated assets
- Issue was historically debated in the courts in estate and gift tax cases
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BUILT-IN GAINS TAX

- General Utilities Doctrine revoked – tax liability upon liquidation is not necessarily speculative
- Most valuators consider the impact of capital gains tax as a dollar-for-dollar reduction in value or incorporated in a discount

BUILT-IN GAINS TAX

Relevant Cases
- Eisenberg – Dunn
- Welch – Borgatello
- Davis – Jelke
- Jameson – Litchfield
- Simplot
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BUILT-IN GAINS TAX – DAVIS

<table>
<thead>
<tr>
<th>Value of Net Assets</th>
<th>Estate's Experts</th>
<th>IRS Expert</th>
<th>IRS Position</th>
<th>Tax Court Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Howard</td>
<td>Pratt</td>
<td>Thompson</td>
<td>Decision</td>
</tr>
<tr>
<td>Value of Net Assets</td>
<td>80,140,269</td>
<td>80,140,269</td>
<td>80,140,269</td>
<td>80,140,269</td>
</tr>
<tr>
<td>Less: built-in gains tax</td>
<td>54,745,160</td>
<td>80,140,269</td>
<td>80,140,269</td>
<td>80,140,269</td>
</tr>
<tr>
<td>Less: blockage discount</td>
<td>4.9% Winn Dixie FMV</td>
<td>(3,432,117)</td>
<td>(7,004,320)</td>
<td></td>
</tr>
<tr>
<td>Less: minority discount</td>
<td>12%</td>
<td>(9,616,832)</td>
<td>(12,021,040)</td>
<td></td>
</tr>
<tr>
<td>Less: marketability discount</td>
<td>23%</td>
<td>(15,667,423)</td>
<td>(15,667,423)</td>
<td></td>
</tr>
</tbody>
</table>

Value, minority, nontradable 28,350,457 29,614,363 43,724,531 52,451,806 40,119,229
Value of each 25.77% block 7,306,825 7,539,800 11,250,000 13,518,500 10,338,725
Value per share 292,273 301,592 450,000 540,740 413,549
Net Asset Value per share 826,086 826,086 826,086 826,086 826,086
Less: Discounts per share 292,273 301,592 450,000 540,740 413,549
Percentage Discounts 64.62% 63.49% 45.53% 34.54% 49.94%
DLOM attributable to built-in gains tax 8,776,317 10,578,516 9,000,000
15% 15% 13%
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### BUILT-IN GAINS TAX – DAVIS

<table>
<thead>
<tr>
<th>Asset</th>
<th>Historical Cost Basis</th>
<th>Fair Market Value</th>
<th>Built-In Gain/(Loss)</th>
<th>Gross Value</th>
<th>Federal Tax *</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feeder cattle</td>
<td>$ 6,474,368</td>
<td>$ 8,074,368</td>
<td>$ 1,600,000</td>
<td>$ 560,000</td>
<td></td>
</tr>
<tr>
<td>Breeding cattle</td>
<td>1,072,843</td>
<td>1,894,400</td>
<td>821,557</td>
<td>287,545</td>
<td></td>
</tr>
<tr>
<td>Winn-Dixie stock</td>
<td>338,283</td>
<td>70,043,204</td>
<td>69,704,921</td>
<td>24,396,722</td>
<td></td>
</tr>
<tr>
<td>DDI stock</td>
<td>120,263</td>
<td>535,162</td>
<td>414,899</td>
<td>145,215</td>
<td></td>
</tr>
<tr>
<td>Equipment</td>
<td>172,999</td>
<td>130,294</td>
<td>(42,705)</td>
<td>(14,947)</td>
<td></td>
</tr>
<tr>
<td>Other assets</td>
<td>1,295,539</td>
<td>1,295,539</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>9,474,295</td>
<td>81,972,967</td>
<td>72,498,672</td>
<td>25,374,535</td>
<td></td>
</tr>
<tr>
<td>Less: Liabilities</td>
<td>(1,832,698)</td>
<td>(1,832,698)</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td><strong>Net Value</strong></td>
<td>$ 7,641,597</td>
<td>$ 80,140,269</td>
<td>$ 72,498,672</td>
<td>$ 25,374,535</td>
<td></td>
</tr>
</tbody>
</table>

* Estimated at 35%. The case did not address state income taxes.

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### The Cost/Asset Approach to Business Valuation

**PROPRIETY OF DISCOUNTS**
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PROPRIETY OF DISCOUNTS

- Values obtained under the Asset Approach generally held to be control interest values
- Is it appropriate to use the approach to value a non-controlling or minority interest?
  - *Professional standards require consideration*
  - *Often no better alternative is available*

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Levels of Value

- **Strategic Control, Marketable**
- **Control, Marketable**
- **Minority, Marketable**
- **Minority, Nonmarketable**
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PROPRIETY OF DISCOUNTS

- Values obtained under the Asset Approach generally deemed to be marketable values
  - Appropriate discounts must be considered and applied
  - Be careful not to “double dip”
  - Specific data source used to determine discounts is dictated by underlying class of assets held by entity

Closed-end fund data

- Used for entities holding marketable securities
- Ownership interests in closed-end funds have control restrictions similar to fractional interests in FLPs
- Databases allow valuator to search using various criteria to closely match the comparables
- Provides discounts for lack of control only
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PROPRIETY OF DISCOUNTS

- RELP transaction data
  - Used for holders of fractional interests in FLPs holding real estate
  - Most widely-used source is annual study published by Partnership Profiles, Inc.

- For discount to be relevant, two elements must apply:
  - Interest being valued is non-controlling
  - Interest being valued must have marketability issues

- Data can be searched using various criteria

- Provides discounts for both lack of control and lack of marketability
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PROPRIETY OF DISCOUNTS

- Example – FLP Reconciliation of Discounts
  - Valuation of a fractional interest in an FLP
  - Underlying assets include marketable securities and real estate

### PROPRIETY OF DISCOUNTS

<table>
<thead>
<tr>
<th>Asset</th>
<th>% of Minority</th>
<th>% of Marketability</th>
<th>% of Combined</th>
<th>% of Total Assets</th>
<th>Weighted Discount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investments</td>
<td>4.1%</td>
<td>23%</td>
<td>26%</td>
<td>20.0%</td>
<td>5.2%</td>
</tr>
<tr>
<td>Domestic Stock</td>
<td>8.2%</td>
<td>23%</td>
<td>29%</td>
<td>10.0%</td>
<td>2.9%</td>
</tr>
<tr>
<td>Bonds</td>
<td>3.8%</td>
<td>23%</td>
<td>26%</td>
<td>10.0%</td>
<td>2.6%</td>
</tr>
<tr>
<td>Real Estate</td>
<td>*</td>
<td>*</td>
<td>31%</td>
<td>60.0%</td>
<td>18.6%</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td>31%</td>
<td>60.0%</td>
<td>18.6%</td>
</tr>
</tbody>
</table>

* Partnership Profiles database produces a combined discount
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REVIEWING EXPERT REPORTS

§ Qualifications of the valuator must be considered
§ To evaluate a report, professional standards governing the work product must be understood
  – Development standards
  – Reporting standards
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REVIEWING EXPERT REPORTS

- Three common levels of written reports
  - Detailed – full valuation, thorough
  - Summary – abridged version of detailed report
  - Calculation – does not include all procedures required in valuation engagement, could impact results
- Oral and letter reports

- Checklist to evaluate key components of reports
- Expert who prepares the report should be able to identify strengths and weaknesses of his/her report as well as other experts’ reports
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CONCLUSION AND PRACTICAL CONSIDERATIONS

Key is understanding the basis for setting historical assets and liabilities at their respective fair market values.

Appraisals of tangible assets must match the assignment requirements set by legal counsel.
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CONCLUSION AND PRACTICAL CONSIDERATIONS

- Engaging outside appraisers involves additional cost, which should be communicated to the client as soon as possible.
- If any abuse of assets is suspected, forensic procedures may be necessary, but can be time-consuming and costly.

THANK YOU!