

Hot Topics in Valuation

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HOT TOPICS IN VALUATION

- Wednesday, March 16th 9:45-10:45 a.m.
- The valuation of bankrupt and financially distressed firms is impacted by many factors including court decisions, changing business models, and macro-economic factors. This panel examines recent developments in these three areas and discusses how they will impact valuation engagements, particularly those performed in the context of litigation or contested matters in the future.
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Hot Topics in Valuation Valuation of Excess NOLs

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NOL Overview

- ◆ Net Operating Losses (“NOLs”) arise when a company’s operating expenses exceed its operating revenues in a tax year, resulting in negative taxable operating income
- ◆ NOLs can be used to offset taxable income in a different year, providing the loss company with potential tax savings:
 - Can be carried back to the 2 immediately preceding years and applied against previously taxable income, generating a tax refund
 - Can be carried forward for up to 20 years and applied to future taxable income, reducing future tax burden
 - After 20 years, unused NOLs expire and can no longer be used to reduce taxable income
- ◆ For companies with sufficient expected future income to utilize their NOLs fully, the value of the NOLs may be calculated as the present value of the tax savings generated
- ◆ However, for companies with insufficient expected future taxable income to utilize NOLs (“Excess NOLs”), restrictions on transfer complicate the valuation exercise

Limitations Surrounding NOLs

- ◆ Section 382 of the Internal Revenue Code significantly limits the availability of NOLs to offset income following an “Ownership Change”
 - An Ownership Change occurs when there is change in equity ownership of at least 50% over a 3 year period, considering only holders (or groups of holders) of 5% or more of the company’s equity
 - If an Ownership Change occurs, the NOLs that may be used annually is limited to the product of (i) the loss company’s equity value at the time of Ownership Change multiplied by (ii) the IRS long-term tax-exempt rate at the time of Ownership Change (2.65% for January 2016 per Rev. Ruling 2016-1)
 - ❖ For example, a company trading at a 10.0x P/E multiple would only be able to shelter approximately 17.7% of its pretax income

Annual Limitation Example	
Pretax Income	150
Net Income	100
P/E Multiple	10.0x
Equity Value	1,000
Annual NOL Limitation (2.65%)	26.5
% of Pretax Income	17.7%
Annual Savings (at 35% tax rate)	9.3

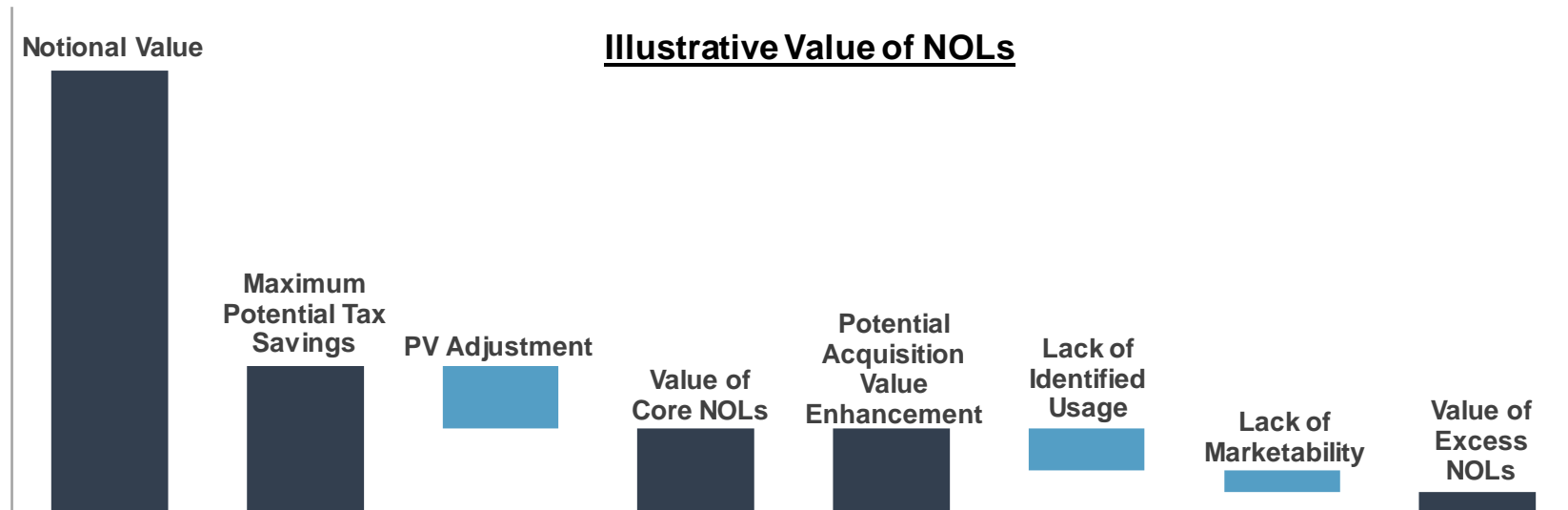
- Over the 2 years immediately following the Ownership Change, the loss company must continue its historic business (“Continuity of Business Enterprise Requirement”)
 - ❖ Holding companies may not be constrained to their traditional operations, as their historic business is ownership of other businesses

L5 Exception

- ◆ For Ownership Changes resulting from a plan under Chapter 11 (or similar proceedings), the “L5 Exception” removes the annual NOL usage limitation, provided prior equity holders and “Qualified Creditors” receive at least 50% of the value and voting power of the reorganized debtor’s equity
 - “Qualified Creditors” are so-called “old and cold” creditors, namely creditors who have:
 - ❖ Held the debt for at least 18 months prior to the bankruptcy filing or
 - ❖ Acquired the debt in the ordinary course of the debtor’s business and not from another creditor
- ◆ If the L5 Exception applies, a second Ownership Change in the 2 years following the reorganization will cause the company to forfeit all unused NOLs

Value of NOLs

- ◆ For NOLs for which there is an expectation of utilization (“Core NOLs”), value derives from:
 - Face amount of NOLs
 - Tax rate
 - PV adjustment to reflect timing and risk of utilization
- ◆ The value of Excess NOLs further reflects:
 - Potential acquisition value enhancement
 - Lack of identified usage (including funding risks)
 - Lack of marketability



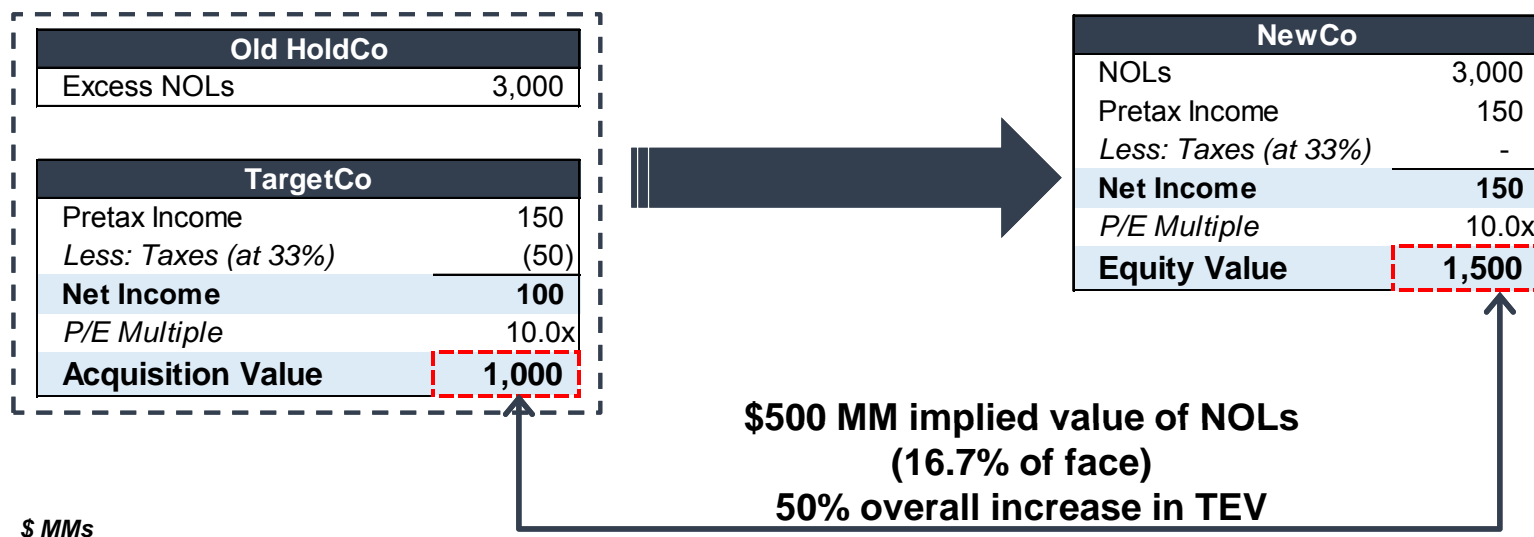
Value of Core NOLs

- ◆ For a company with sufficient expected future taxable income, the value of the NOL is the present value of the expected future tax savings
 - Tax savings are generally an equity return and often discounted at the cost of equity
- ◆ For example, if a company utilized its NOLs evenly over a 10 year horizon, assuming a 35% tax rate and 10% cost of equity, the NOLs would provide present value tax savings of approximately 21.5% of notional value

Value of Core NOLs (% of notional)				
		Years to Fully Utilize NOLs		
		5	10	20
Cost of Equity	7.5%	28.3%	24.0%	17.8%
	10.0%	26.5%	21.5%	14.9%
	15.0%	23.5%	17.6%	11.0%

Acquisition Value Enhancement (Unlevered)

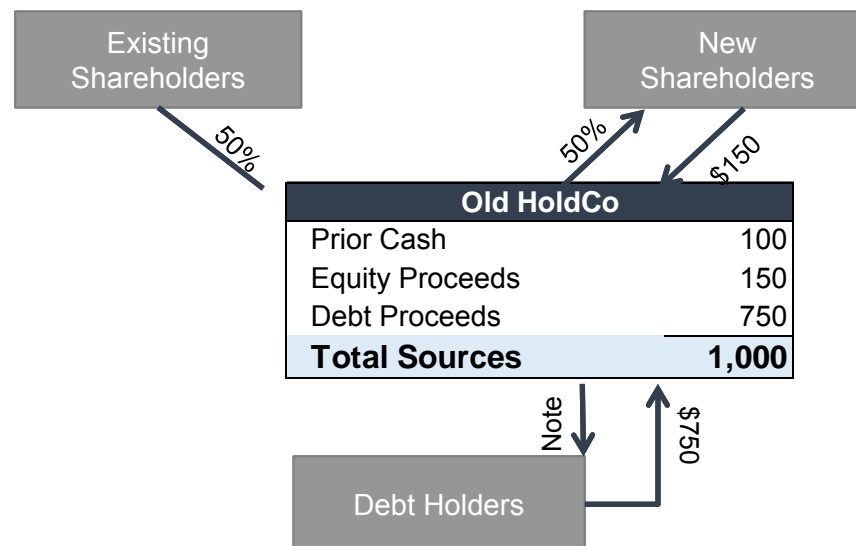
- ◆ One way to consider the value of Excess NOLs is to analyze the potential value enhancement of those Excess NOLs in an acquisition
- ◆ Take the following example:
 - Old HoldCo has Excess NOLs of \$3 Bn and no operations
 - TargetCo has Pretax Income of \$150 MM, a 33% effective tax rate and is in an industry that trades purely on P/E multiple of 10.0x¹
 - Old HoldCo could acquire such company for \$1 Bn to form NewCo
 - Immediately after consummation, NewCo would have Net Income of \$150 MM
 - ❖ At 10.0x P/E, NewCo would have a value of \$1.5 Bn, implying a value enhancement from the NOLs of \$500 MM



¹ For simplicity of presentation; companies rarely, if ever, are valued purely on a single metric

Acquisition Value Enhancement (Levered)

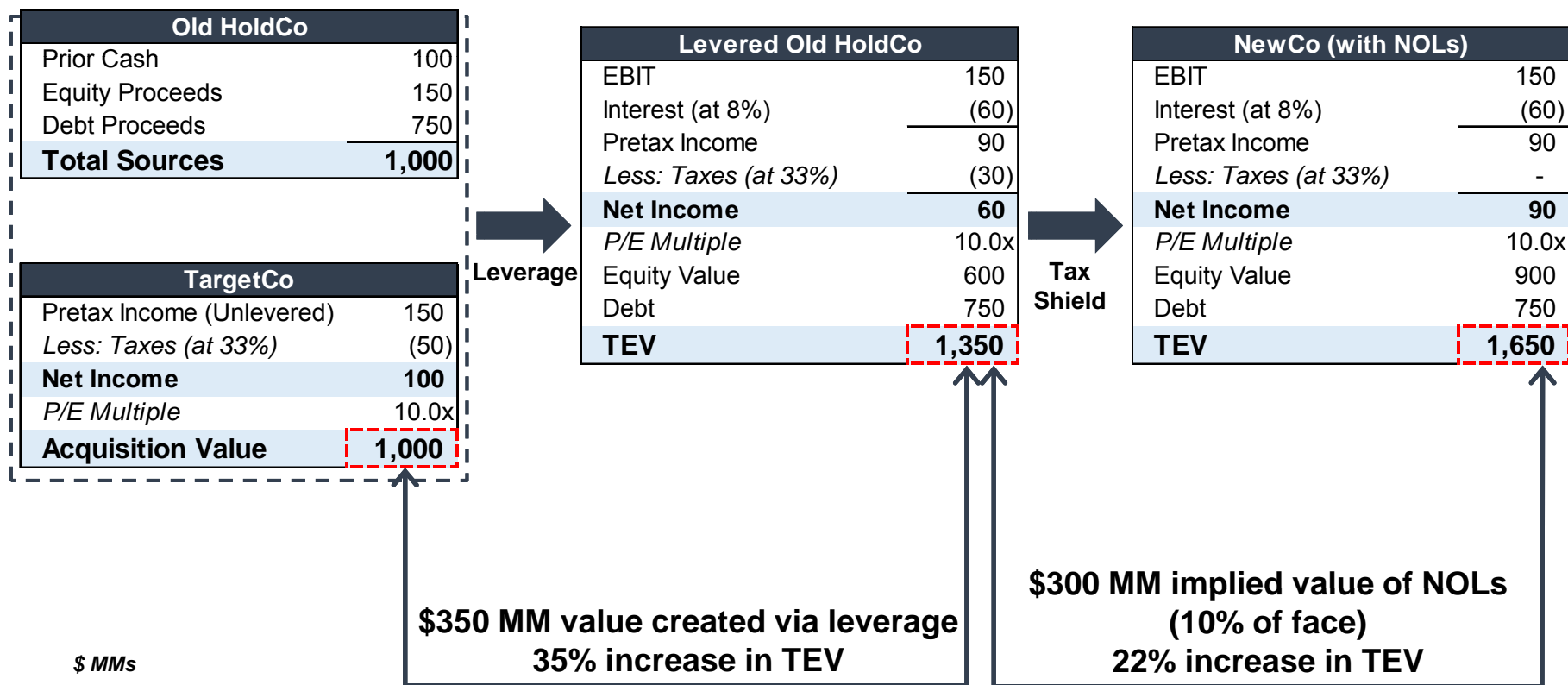
- ◆ However, the ability of a company to deploy Excess NOLs that are disproportionate to its balance sheet may be more limited than otherwise perceived
- ◆ In the prior example, Old HoldCo would need to fund the \$1 Bn purchase price
 - However, it could only issue equity roughly equal to its pre-transaction value (*i.e.*, 50% of fully-diluted equity) in order to avoid Section 382 limitations
- ◆ In order to avoid Section 382 limitations, Old HoldCo could fund the acquisition as follows
 - Assume that Old HoldCo only had cash of \$100 MM and its equity was valued at \$150 MM (derived from cash plus some trading value for attributable to NOLs)
 - ❖ It could issue 50% new equity for \$150 MM
 - ❖ Then lever at 3:1 (debt to cash) to make the acquisition
- ◆ Old HoldCo would then acquire TargetCo for \$1 Bn



\$ MMs

Acquisition Value Enhancement (Levered), cont'd

- ◆ The increased leverage would augment enterprise value by \$350 MM (assuming an 8% interest rate and maintaining 10.0x P/E)¹
- ◆ In this scenario, however, the addition of leverage (and the related tax shield) reduces the value of the Excess NOLs to \$300 MM (vs. \$500 MM in the prior example)



¹ In reality, the P/E multiple would likely decline with leverage; such discussions are beyond the scope of this Presentation

Lack of Identified Usage

- ◆ Until an acquisition target or business opportunity has been identified and a transaction consummated, the Excess NOLs represent a call option on the potential acquisition value enhancement to be created by such NOLs (see prior examples)
- ◆ Such option might not be subject to traditional option valuation techniques
 - Value does not follow a random walk or other volatility-driven pattern
 - Value creation is event-driven and requires management action
 - Arbitrage scenarios may emerge due to lack of tradability
- ◆ As such, the value of the option is likely calculated in a more bespoke manner, including an assessment of:
 - Management strength and ability to consummate an acquisition
 - Balance sheet capacity
 - Financing risk
 - Likelihood of a transaction

Discount for Lack of Marketability

- ◆ The constraints on transfers of NOLs, including Section 382 limitations, represent marketability impairments warranting a discount for lack of marketability (“DLOM”) beyond the theoretical option value
 - DLOM is a valuation discount on an asset that is not readily marketable
 - In general, for restricted shares or small business ownership interests, DLOM can be determined:
 - ❖ By reference to pricing differentials of restricted stock vs. public shares or pre-IPO vs. post-IPO stock prices
 - ❖ Using the protective put model, which discounts the value of a freely transferable security by the cost of writing an at-the-money put
 - DLOM will vary based on the extent of marketability restrictions
 - ❖ The extent of transfer restrictions on the value created by Excess NOLs may result in a particularly high DLOM and may challenge the foundations of fair market value analyses
 - Limitations on the transfer of NOLs and the potential divergent ability to use the NOLs create a tension with the concept of “fair market value”
 - ❖ Fair market value (“FMV”) is “the price at which property would change hands between a willing buyer and a willing seller when the former is not under any compulsion to buy, and the latter is not under any compulsion to sell, both parties having reasonable knowledge of the relevant facts” (Rev. Ruling 59-60, emphasis added)

Value of NOLs Transferred Between Related Parties

- ◆ As the result of the disposition of operating assets or the insolvency of subsidiaries, holding companies may be left with significant Excess NOLs without a means of utilization
- ◆ A natural utilization of holding company NOLs is through the operating subsidiaries
 - Disputes will arise when the value of subsidiary's NOL utilization does not inure to the holding company
- ◆ When insolvent regulated operating subsidiaries are seized, placed in receivership or similarly rehabilitated, disputes may arise as to ownership and value allocation of NOLs generated at the operating company level
 - Holding company may assert that, as the US tax nexus, all tax attributes are the holding company's assets
 - Additionally, as the taxpayer, the holding company may take various steps to imperil the NOLs (such as conversion to Chapter 7 or otherwise triggering a change of control)
 - ❖ While such steps may not create value for the holding company, they will destroy value for the subsidiary
 - ❖ As such, the holding company may demand some "hold-up" value for the NOLs needed by the subsidiary (which would be willing to pay to prevent destruction of value)
 - The holding company may also take certain actions (such as worthless stock deduction and reattribution of taxable income/loss) to limit the subsidiary's access to NOLs
 - The subsidiary may assert that contractual protections and/or state regulatory law limit the holding company's ability to access NOLs generated by the subsidiary without payment
- ◆ The case of a parent-subsidary divorce and the dynamics presented above defy the rules for FMV
 - Seller (subsidiary) is neither willing nor free of compulsion
 - The parties are related and the asset may not be transferable to an unrelated party

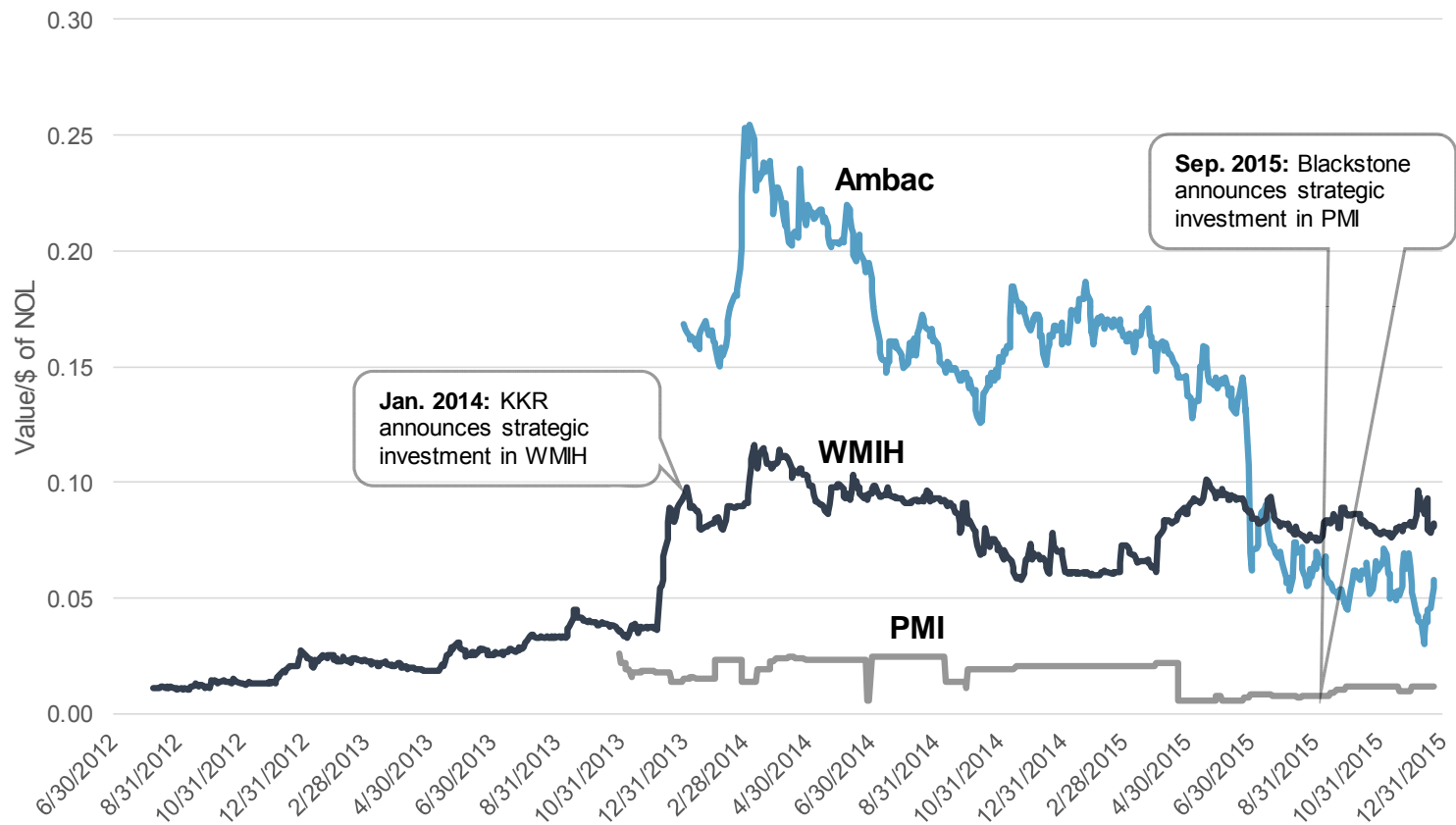
Considerations when FMV Fails

- ◆ In the absence of the conditions necessary to derive FMV, various factors must be considered to determine value
 - Perspective (value to buyer vs. cost to seller)
 - ❖ For example, in cases of unjustified enrichment (when one party is unjustly enriched at the expense of another and is, therefore, obligated to make restitution) restitution is generally calculated as the benefit received
 - However, unjust enrichment is a punitive framework that may not be applicable respecting Excess NOLs
 - ❖ In a transaction reattributing Excess NOLs, the value to the buyer may far exceed the cost to the seller (which may be negligible)
 - Standalone value
 - ❖ Non-transferable and intangible assets, such as operating licenses, are often valued based on the discounted cash flow value of a hypothetical company with no assets save the one to be valued
 - ❖ On a standalone basis, Excess NOLs may have limited value, as discussed previously
 - ❖ The legal and practical constraints on transfers of such assets should be considered incrementally

Recent Related Party and New Holding Company Cases

- ◆ In several cases emerging from the financial crises, holding companies extracted the rights to Excess NOLs (or a portion thereof) from their respective subsidiaries
- ◆ These companies continue to pursue opportunities to utilize the Excess NOLs
- ◆ Washington Mutual
 - Sold all operations in bankruptcy
 - Emerged with \$5.96 Bn of NOLs and \$75 MM of cash
 - Subsequent private equity backstop to fund future investments in an attempt to utilize NOLs
- ◆ Ambac
 - Renegotiated tax sharing agreement between parent and subsidiary
 - ❖ Provided for subsidiary to make payment to parent for use of NOLs at a value (i) greater than provided under prior agreements but (ii) significantly lower than the full tax rate
 - ❖ Allowed the parent to utilize Excess NOLs
 - Emerged with approximately \$5.05 Bn of NOLs and equity value of \$900 MM
- ◆ PMI
 - Effectively separated parent from insolvent subsidiary
 - Unsuccessful attempt in bankruptcy to find platform to use NOLs
 - Subsidiary retained \$1.0 Bn of NOLs for payment of \$20 MM (1.7% of face)
 - Emerged with \$500 MM of NOLs and minimal cash
 - Subsequent private equity backstop to fund future investments in an attempt to utilize NOLs

Market Value of Excess NOLs



Notes:

WMIH, Ambac and PMI exited bankruptcy in March 2012, March 2013 and October 2013, respectively

Ambac value represents market value less value ascribed to subsidiary based on comparables; such value of subsidiary may be less than actually attributed by market



Appendix



Selected Text of IRC Section 382

Internal Revenue Code Section 382

- ◆ **U.S. Code § 382 - Limitation on net operating loss carryforwards and certain built-in losses following ownership change**
- ◆ **(a) General rule**
 - The amount of the taxable income of any new loss corporation for any post-change year which may be offset by pre-change losses shall not exceed the section 382 limitation for such year.
- ◆ **(b) Section 382 limitation**
 - (1) In general, except as otherwise provided in this section, the section 382 limitation for any post-change year is an amount equal to —
 - ❖ (A) the value of the old loss corporation, multiplied by
 - ❖ (B) the long-term tax-exempt rate.
 - (2) Carryforward of unused limitation
 - ❖ If the section 382 limitation for any post-change year exceeds the taxable income of the new loss corporation for such year which was offset by pre-change losses, the section 382 limitation for the next post-change year shall be increased by the amount of such excess.
 - (3) Special rule for post-change year which includes change date
 - ❖ In the case of any post-change year which includes the change date—
 - (A) Limitation does not apply to taxable income before change
 - Subsection (a) shall not apply to the portion of the taxable income for such year which is allocable to the period in such year on or before the change date. Except as provided in subsection (h)(5) and in regulations, taxable income shall be allocated ratably to each day in the year.
 - (B) Limitation for period after change
 - For purposes of applying the limitation of subsection (a) to the remainder of the taxable income for such year, the section 382 limitation shall be an amount which bears the same ratio to such limitation (determined without regard to this paragraph) as—
 - (i) the number of days in such year after the change date, bears to
 - (ii) the total number of days in such year.
- ◆ **(c) Carryforwards disallowed if continuity of business requirements not met**
 - (1) In general, except as provided in paragraph (2), if the new loss corporation does not continue the business enterprise of the old loss corporation at all times during the 2-year period beginning on the change date, the section 382 limitation for any post-change year shall be zero.
 - (2) Exception for certain gains
 - The section 382 limitation for any post-change year shall not be less than the sum of—
 - ❖ (A) any increase in such limitation under—
 - (i) subsection (h)(1)(A) for recognized built-in gains for such year, and
 - (ii) subsection (h)(1)(C) for gain recognized by reason of an election under section 338, plus
 - ❖ (B) any increase in such limitation under subsection (b)(2) for amounts described in subparagraph (A) which are carried forward to such year.
- ◆ **(d) Pre-change loss and post-change year**
 - (1) The term “pre-change loss” means—
 - ❖ (A) any net operating loss carryforward of the old loss corporation to the taxable year ending with the ownership change or in which the change date occurs, and
 - ❖ (B) the net operating loss of the old loss corporation for the taxable year in which the ownership change occurs to the extent such loss is allocable to the period in such year on or before the change date.
 - Except as provided in subsection (h)(5) and in regulations, the net operating loss shall, for purposes of subparagraph (B), be allocated ratably to each day in the year.
 - (2) The term “post-change year” means any taxable year ending after the change date.
- ◆ **(e) Value of old loss corporation**
 - (1) In general, except as otherwise provided in this subsection, the value of the old loss corporation is the value of the stock of such corporation (including any stock described in section 1504(a)(4)) immediately before the ownership change.

Internal Revenue Code Section 382

- (2) Special rule in the case of redemption or other corporate contraction
 - ❖ If a redemption or other corporate contraction occurs in connection with an ownership change, the value under paragraph (1) shall be determined after taking such redemption or other corporate contraction into account.
- (3) Treatment of foreign corporations
 - ❖ Except as otherwise provided in regulations, in determining the value of any old loss corporation which is a foreign corporation, there shall be taken into account only items treated as connected with the conduct of a trade or business in the United States.
- ◆ **(f) Long-term tax-exempt rate**
 - (1) In general, the long-term tax-exempt rate shall be the highest of the adjusted Federal long-term rates in effect for any month in the 3-calendar-month period ending with the calendar month in which the change date occurs.
 - (2) Adjusted Federal long-term rate
 - ❖ For purposes of paragraph (1), the term “adjusted Federal long-term rate” means the Federal long-term rate determined under section 1274(d), except that—
 - (A) paragraphs (2) and (3) thereof shall not apply, and
 - (B) such rate shall be properly adjusted for differences between rates on long-term taxable and tax-exempt obligations.
- ◆ **(g) Ownership change**
 - (1) In general, there is an ownership change if, immediately after any owner shift involving a 5-percent shareholder or any equity structure shift—
 - ❖ (A) the percentage of the stock of the loss corporation owned by 1 or more 5-percent shareholders has increased by more than 50 percentage points, over
 - ❖ (B) the lowest percentage of stock of the loss corporation (or any predecessor corporation) owned by such shareholders at any time during the testing period.
 - (2) Owner shift involving 5-percent shareholder
 - ❖ There is an owner shift involving a 5-percent shareholder if—
 - (A) there is any change in the respective ownership of stock of a corporation, and
 - (B) such change affects the percentage of stock of such corporation owned by any person who is a 5-percent shareholder before or after such change.
- (3) Equity structure shift defined
 - ❖ (A) In general, the term “equity structure shift” means any reorganization (within the meaning of section 368). Such term shall not include—
 - (i) any reorganization described in subparagraph (D) or (G) of section 368(a)(1) unless the requirements of section 354(b)(1) are met, and
 - (ii) any reorganization described in subparagraph (F) of section 368(a)(1).
 - ❖ (B) Taxable reorganization-type transactions, etc.
 - To the extent provided in regulations, the term “equity structure shift” includes taxable reorganization-type transactions, public offerings, and similar transactions.
- (4) Special rules for application of subsection
 - ❖ (A) Treatment of less than 5-percent shareholders
 - Except as provided in subparagraphs (B)(i) and (C), in determining whether an ownership change has occurred, all stock owned by shareholders of a corporation who are not 5-percent shareholders of such corporation shall be treated as stock owned by 1 5-percent shareholder of such corporation.
 - ❖ (B) Coordination with equity structure shifts
 - For purposes of determining whether an equity structure shift (or subsequent transaction) is an ownership change—
 - (i) Less than 5-percent shareholders
 - Subparagraph (A) shall be applied separately with respect to each group of shareholders (immediately before such equity structure shift) of each corporation which was a party to the reorganization involved in such equity structure shift.
 - (ii) Acquisitions of stock
 - Unless a different proportion is established, acquisitions of stock after such equity structure shift shall be treated as being made proportionately from all shareholders immediately before such acquisition.

Internal Revenue Code Section 382

❖ (C) Coordination with other owner shifts

- ❑ Except as provided in regulations, rules similar to the rules of subparagraph (B) shall apply in determining whether there has been an owner shift involving a 5-percent shareholder and whether such shift (or subsequent transaction) results in an ownership change.

❖ (D) Treatment of worthless stock

- ❑ If any stock held by a 50-percent shareholder is treated by such shareholder as becoming worthless during any taxable year of such shareholder and such stock is held by such shareholder as of the close of such taxable year, for purposes of determining whether an ownership change occurs after the close of such taxable year, such shareholder—
 - (i) shall be treated as having acquired such stock on the 1st day of his 1st succeeding taxable year, and
 - (ii) shall not be treated as having owned such stock during any prior period.
 - For purposes of the preceding sentence, the term “50-percent shareholder” means any person owning 50 percent or more of the stock of the corporation at any time during the 3-year period ending on the last day of the taxable year with respect to which the stock was so treated.

◆ (i) Testing period

- (1) 3-year period
 - ❖ Except as otherwise provided in this section, the testing period is the 3-year period ending on the day of any owner shift involving a 5-percent shareholder or equity structure shift.
- (2) Shorter period where there has been recent ownership change
 - ❖ If there has been an ownership change under this section, the testing period for determining whether a 2nd ownership change has occurred shall not begin before the 1st day following the change date for such earlier ownership change.
- (3) Shorter period where all losses arise after 3-year period begins
 - ❖ The testing period shall not begin before the earlier of the 1st day of the 1st taxable year from which there is a carryforward of a loss or of an excess credit to the 1st post-change year or the taxable year in which the

transaction being tested occurs. Except as provided in regulations, this paragraph shall not apply to any loss corporation which has a net unrealized built-in loss (determined after application of subsection (h)(3)(B)).

◆ (j) Change date

◆ The change date is—

- (1) in the case where the last component of an ownership change is an owner shift involving a 5-percent shareholder, the date on which such shift occurs, and
- (2) in the case where the last component of an ownership change is an equity structure shift, the date of the reorganization.

◆ (l) Certain additional operating rules

➤ (4) Reduction in value where substantial nonbusiness assets

- ❖ (A) In general, if, immediately after an ownership change, the new loss corporation has substantial nonbusiness assets, the value of the old loss corporation shall be reduced by the excess (if any) of—
 - ❑ (i) the fair market value of the nonbusiness assets of the old loss corporation, over
 - ❑ (ii) the nonbusiness asset share of indebtedness for which such corporation is liable.
- ❖ (B) Corporation having substantial nonbusiness assets
 - ❑ For purposes of subparagraph (A)—
 - In general, the old loss corporation shall be treated as having substantial nonbusiness assets if at least $\frac{1}{3}$ of the value of the total assets of such corporation consists of nonbusiness assets.
 - A regulated investment company to which part I of subchapter M applies, a real estate investment trust to which part II of subchapter M applies, or a REMIC to which part IV of subchapter M applies, shall not be treated as a new loss corporation having substantial nonbusiness assets.

Internal Revenue Code Section 382

- ❖ (C) Nonbusiness assets
 - For purposes of this paragraph, the term “nonbusiness assets” means assets held for investment.
- ❖ (D) Nonbusiness asset share
 - For purposes of this paragraph, the nonbusiness asset share of the indebtedness of the corporation is an amount which bears the same ratio to such indebtedness as—
 - (i) the fair market value of the nonbusiness assets of the corporation, bears to
 - (ii) the fair market value of all assets of such corporation.
- ❖ (E) Treatment of subsidiaries
 - For purposes of this paragraph, stock and securities in any subsidiary corporation shall be disregarded and the parent corporation shall be deemed to own its ratable share of the subsidiary's assets. For purposes of the preceding sentence, a corporation shall be treated as a subsidiary if the parent owns 50 percent or more of the combined voting power of all classes of stock entitled to vote, and 50 percent or more of the total value of shares of all classes of stock.
- (5) Title 11 or similar case
 - ❖ (A) In general, subsection (a) shall not apply to any ownership change if—
 - (i) the old loss corporation is (immediately before such ownership change) under the jurisdiction of the court in a title 11 or similar case, and
 - (ii) the shareholders and creditors of the old loss corporation (determined immediately before such ownership change) own (after such ownership change and as a result of being shareholders or creditors immediately before such change) stock of the new loss corporation (or stock of a controlling corporation if also in bankruptcy) which meets the requirements of section 1504(a)(2) (determined by substituting “50 percent” for “80 percent” each place it appears).
 - ❖ (B) Reduction for interest payments to creditors becoming shareholders
 - In any case to which subparagraph (A) applies, the pre-change losses and excess credits (within the meaning of section 383(a)(2)) which may be carried to a post-change year shall be computed as if no deduction was allowable under this chapter for the interest paid or accrued by the old loss corporation on indebtedness which was converted into stock pursuant to title 11 or similar case during—
 - (i) any taxable year ending during the 3-year period preceding the taxable year in which the ownership change occurs, and
 - (ii) the period of the taxable year in which the ownership change occurs on or before the change date.
 - ❖ (C) Coordination with section 108
 - In applying section 108(e)(8) to any case to which subparagraph (A) applies, there shall not be taken into account any indebtedness for interest described in subparagraph (B).
 - ❖ (D) Section 382 limitation zero if another change within 2 years
 - If, during the 2-year period immediately following an ownership change to which this paragraph applies, an ownership change of the new loss corporation occurs, this paragraph shall not apply and the section 382 limitation with respect to the 2nd ownership change for any post-change year ending after the change date of the 2nd ownership change shall be zero.
 - ❖ (E) Only certain stock taken into account
 - For purposes of subparagraph (A)(ii), stock transferred to a creditor shall be taken into account only to the extent such stock is transferred in satisfaction of indebtedness and only if such indebtedness—
 - (i) was held by the creditor at least 18 months before the date of the filing of the title 11 or similar case, or
 - (ii) arose in the ordinary course of the trade or business of the old loss corporation and is held by the person who at all times held the beneficial interest in such indebtedness.

Internal Revenue Code Section 382

- ❖ (F) Title 11 or similar case
 - For purposes of this paragraph, the term “title 11 or similar case” has the meaning given such term by section 368(a)(3)(A).
- ❖ (G) Election not to have paragraph apply
 - A new loss corporation may elect, subject to such terms and conditions as the Secretary may prescribe, not to have the provisions of this paragraph apply.
- (6) Special rule for insolvency transactions
 - ❖ If paragraph (5) does not apply to any reorganization described in sub paragraph (G) of section 368(a)(1) or any exchange of debt for stock in a title 11 or similar case (as defined in section 368(a)(3)(A)), the value under subsection (e) shall reflect the increase (if any) in value of the old loss corporation resulting from any surrender or cancellation of creditors’ claims in the transaction.
- (7) Coordination with alternative minimum tax
 - ❖ The Secretary shall by regulation provide for the application of this section to the alternative tax net operating loss deduction under section 56(d).
- (8) Predecessor and successor entities
 - ❖ Except as provided in regulations, any entity and any predecessor or successor entities of such entity shall be treated as 1 entity.

Section 368(a)(3)(A):

The term “title 11 or similar case” means: (i) a case under title 11 of the United States Code, or (ii) a receivership, foreclosure, or similar proceeding in a Federal or State court.

Section 368(a)(1)(G):

The term “reorganization” means: A transfer by a corporation of all or part of its assets to another corporation in a Title 11 or similar case; but only if, in pursuance of the plan, stock or securities of the corporation to which the assets are transferred are distributed in a transaction which qualifies under section 354, 355, or 356



Summary of Selected Cases

Washington Mutual

- ◆ In September 2008, Washington Mutual Inc. (“WMI”), parent of Washington Mutual Bank (“WMB”) filed for Chapter 11 and sold all of WMB’s assets and certain liabilities to JP Morgan Chase for approximately \$1.9 Bn
 - In March 2012, WMI Holdings (“WMIH”) emerged from bankruptcy proceedings as the successor to WMI
 - WMIH emerged with approximately \$5.96 Bn of NOLs, \$75 MM cash and minimal operations
- ◆ In January 2014, KKR made a strategic investment in WMIH, purchasing roughly 26% of the company’s equity for \$95 MM (at an implied NOL value of approximately \$0.06 per dollar) via the following:
 - \$10.55 MM of convertible preferred stock, convertible into roughly 3.5% fully diluted common equity
 - 5 year warrants to purchase approximately 22.5% of additional shares of common stock
 - Right for 3 years to participate up to 50% in future equity offerings, up to an aggregate of \$1.0 Bn, but with a cap of 42.5% ownership of the company’s common equity
 - The transaction was structured to avoid an Ownership Change
 - As of January 15, 2016, WMIH has not announced any acquisitions or further capital transactions

Ambac Financial Group

- ◆ In November 2010, Ambac Financial Group (“Ambac”) filed for Chapter 11 bankruptcy
 - Its main subsidiary, Ambac Assurance Corp. (“AAC”), lost significant value during the financial crisis on guarantees of structured finance products and was placed, in part, in rehabilitation in March 2010 at the direction of the Office of the Commissioner of Insurance of the State of Wisconsin
- ◆ In March 2012, Ambac’s reorganization plan was approved, which included retention of approximately \$5.05 Bn of NOLs, an initial payment from AAC of \$30 MM as well as additional funds to support Ambac’s operating expenses for the following five years
- ◆ Ambac and AAC entered into an amended Tax Sharing Agreement that provided for AAC to make payments to Ambac for NOLs AAC utilized at percentages of the full tax liability that would otherwise be due in accordance with the schedule below:

NOL Usage Tier	Allocated NOLs Used	Percentage Applied to Full Tax Liability
A	The first \$479 MM	15%
B	The next \$1,057 MM following Tier A	40%
C	The next \$1,057 MM following Tier B	10%
D	The next \$1,057 MM following Tier C	15%

- ◆ Ambac is allowed to utilize all available NOLs

The PMI Group

- ◆ In November 2011, The PMI Group, Inc. (“PMI”) filed for Chapter 11 bankruptcy after facing severe financial stress at, and ultimately regulatory seizure of, its main subsidiary, PMI Mortgage Insurance Corp. (“MIC”)
- ◆ Over the next year, PMI and MIC disputed the proper ownership of approximately \$2.2 Bn of NOLs
 - In a November 2012 settlement, MIC agreed to pay PMI \$20 MM for \$1.0 Bn of the group’s NOLs, with PMI retaining the remaining \$1.2 Bn of NOLs for its own use
 - During the bankruptcy, PMI attempted to find ways to monetize the remaining NOLs
 - The US Attorney, on behalf of the Internal Revenue Service, objected to PMI’s Chapter 11 plan, asserting that PMI’s main objective was to leverage its NOLs as a tax shield in an otherwise empty company with no potential business prospects
 - ❖ The Bankruptcy Court overruled this objection, noting that PMI would continue to operate with MIC as a member of its tax group (albeit without clear value to PMI) and that the plan was an integrated settlement of litigation
 - PMI emerged with approximately \$500 MM of Excess NOLs and minimal cash
- ◆ In September 2015, Blackstone purchased a significant, but undisclosed, equity stake in PMI and agreed to provide PMI with a loan for its working capital needs, in exchange for warrants and other rights, including the right to participate in future equity offerings
 - Blackstone’s investment provides a platform for reorganized PMI to fund future strategic moves utilizing its NOLs



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BY DR. ISRAEL SHAKED AND BRAD ORELOWITZ

The Valuation of NOLs in a Bankruptcy Reorganization



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Anyone who works in bankruptcy deals with companies that have failed or are in distress. These companies have generally built up accumulated losses, which arise when expenses exceed revenue for accounting purposes. For tax purposes, however, when tax-deductible expenses exceed taxable revenue, a net operating loss (NOL) is incurred. Under certain circumstances, NOLs can be carried back two years and carried forward 20 years to offset taxable income incurred in those years.

In a bankruptcy reorganization, a valuation professional is often called in to opine on the value of the debtor's assets. Often overlooked when valuing a company in a reorganization is the benefit of offsetting future taxable income against an NOL.¹ To determine the value of the NOL, the appraiser needs to determine the value of the tax shield, *i.e.*, the tax savings that the company will realize as a result of the NOL. These tax savings are dependent on, among other things, the projected interest expense, which in turn is dependent on the level of debt that the debtor will have once it emerges from bankruptcy. In order to better comprehend the complex nature of the NOL valuation process, it is useful to first list (in reverse order) the information and research process that has to be undertaken:

1. In order to compute the value of the tax savings as a result of the NOL, it is necessary to project the amount and timing of the tax savings (and discount them to the present value);
2. In order to project the tax savings, it is necessary to project the pre-tax earnings (EBT) and the tax rate;
3. In order to project the pre-tax earnings (EBT), it is necessary to first project the operating income (EBIT) and then subtract from it the projected interest expense;
4. In order to project the interest expense, it is necessary to project the debt levels and the interest rate expected to be paid on this debt;
5. In order to project the appropriate interest rate expected to be paid on the debt, it is necessary to project the debt level in future periods; and
6. In order to project the debt level, it is necessary to project the company's future debt-free cash flows and the firm's cash adequacy, and

also to benchmark industry and comparable firms' leverage ratios.

In practice, start from stage 6 and perform the analysis by "moving backward" through all six steps toward step 1. This process is also represented in Charts 1 and 2. Chart 1 starts with the projection of operating cash flows and research and analysis on comparable companies' leverage ratios, and leads us to the determination of projected interest expense. In Chart 1, "M" refers to the ratio of debt to EBITDA. As described below, it is calculated by considering company-specific factors, as well as by benchmarking with competitors in the industry. DFCF refers to debt-free cash flows, which are typi-

Chart 1: Bankrupt Company's Post-Reorganization Projected Debt and Interest

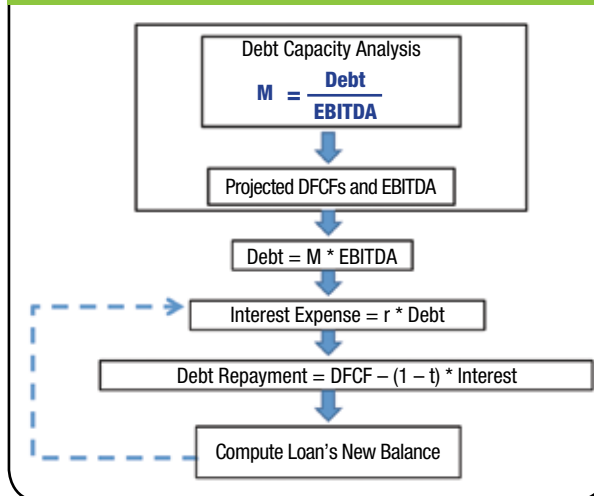
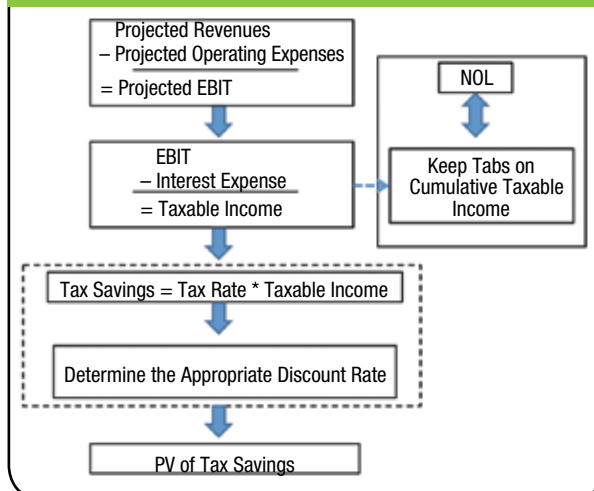


Chart 2: Determining NOL Tax Shield



¹ The tax code incorporates a complex body of rules relating to NOLs. This article will not focus on whether or not a debtor can utilize the NOL. Instead, the authors will assume that the NOL can be utilized. The complexities of different NOLs for federal and state taxes will not be covered.

cally projected cash flows prior to any debt service. DFCFs are also referred to as unlevered cash flows. As illustrated in Chart 2, the projected interest expense (as determined in Chart 1) is then used as an input into the projected taxable income calculation, which is then used to calculate the present value of tax savings.

One of the tasks of the bankruptcy reorganizer is to determine the level of debt that the debtor can adequately service. For example, the Bankruptcy Code requires proof that “[c]onfirmation of the plan is not likely to be followed by the liquidation, or the need for further financial reorganization, of the debtor or any successor to the debtor under the plan, unless such liquidation or reorganization is proposed in the plan.”² Thus, the reorganizer is required to determine the level of debt such that it is unlikely that the debtor will require further financial reorganization. In order to determine a reasonable level of debt, an analysis of the company’s ability to service this debt is required.

Estimating Future Taxable Income

Projecting into the future is often very challenging. In order to project future years, one must fully understand the past. An analysis of historical performance is useful to assess the trends and cyclicity of the business. These historical results should be adjusted to reflect asset sales and liquidations, acquisitions, etc. For example, if part of the reorganization requires that retail locations in a region be shut down, then the analysis of historical performance should exclude the revenue and costs of these retail locations so that historical performance can be compared to the projected performance, which does not include any of the locations that were shut down.

If possible, the appraiser should interview company personnel to determine various factors, including revenue growth rates, changes in expenses, competition within the industry, dependency on few customers, dependency on key personnel, regulatory changes, new innovations, prospective areas of expansion, etc. All of these factors should be incorporated into the projections, which should be carried out for at least as long as it will take to realize the NOLs.

Taxable income can only be derived by projecting a full income statement. Instead of stopping at the EBITDA or EBIT level, depreciation and interest expense must both be projected as they are both tax-deductible expenses. However, the circular “catch 22” is that interest expense can only be estimated once the post-reorganization debt has been determined.

Analysis of Debt Capacity

An analysis of the debtor’s debt capacity is required to determine the level of debt that the debtor can adequately service. A number of factors will determine the appropriate level. Company-specific factors, such as operating cash flows, existing lease liabilities, cyclicity, likelihood of unexpected events, etc., should be considered. The level of debt held by competitors and within the industry will also serve as a good benchmark, as the debtor needs to remain competitive. The decision-maker has to assess whether the

cash flows are adequate so that it is highly likely that the company can continue to pay its debts as they come due.

A frequently used metric in determining debt capacity is the ratio of debt to EBITDA. Capital-intensive industries might have debt-to-EBITDA ratios of around 7x to 8x, whereas retail businesses might have a much lower ratio. For illustrative purposes, let’s assume that a company operates in an industry where the normal debt-to-EBITDA ratio is 5x and this company has an EBITDA of \$100 million. Debt is equal to the company’s projected EBITDA multiplied by the industry’s debt-to-EBITDA ratio, hence \$500 million. While the math itself is trivial, serious research should be conducted to ensure that indeed 5x is the appropriate debt-to-EBITDA ratio for the company in question.

Interest Expense

The interest expense is then calculated by multiplying the debt by the interest rate and is usually based on the company’s projected debt rating. However, lenders will also account for both internal and external risks. Internal risks include those risks specific to the company, such as emerging technologies, labor relations and operational factors. External risks arise from factors that cannot be controlled by the company, including economic factors, political factors and other factors like natural disasters. Once lenders have determined the appropriate interest rate, the interest expense can be estimated. Taxable income can now be calculated following the estimation of interest expense.

Valuation of NOL

The most frequently used method for valuing an NOL is calculating the present value of the future tax savings. Novices tend to believe that this method is fairly straightforward. However, the results are dependent on several key assumptions, which the appraiser must substantiate in order for the value to be reasonable.

The appraiser should seek a professional opinion as to if and when the NOLs will be realized. An estimate of the marginal tax rate is also required for this analysis. The historical effective tax rate should not be used to determine future tax savings, as it may not be reflective of the tax rate that will be paid in the future. The analysis should also incorporate any additional limitations regarding the use of the NOL.

Tax Savings

The appraiser can estimate the rate at which the NOL will be utilized once the taxable income and the marginal tax rate have been projected. This will reduce the estimated taxes payable. The tax savings represent the difference between the taxable income multiplied by the marginal tax rate and the estimated taxes as a result of the utilization of the NOL.

Discount Rate

There is a debate regarding the discount rate used to discount the tax savings associated with the utilization of the NOL. When determining the discount rate, each and every valuation will have unique factors to consider. The general rule is that the discount rate should be reflective of, and com-

2 Section 1129(a)(11).

Value & Cents: The Valuation of NOLs in a Bankruptcy Reorganization

from page 25

patible with, the nature and risk of the cash stream associated with the tax savings.

Valuation of NOLs in Stock Sales

Although this article has thus far focused on the case of an NOL of a reorganized firm, another issue to consider is the case of a potential buyer acquiring a firm. Section 382 of the Internal Revenue Code limits a company's ability to utilize existing NOLs when there has been a change in ownership (as defined in the Code).³ Section 382 does not change the amount of the company's NOL prior to a change in the company's ownership.⁴ Instead, § 382 places an annual limit on the amount of the NOL that can be used to offset against taxable income earned in each year.⁵

3 26 U.S.C. § 382.

4 26 U.S.C. § 382(b)(1).

5 26 U.S.C. § 382(a).

Table 1: Value of NOL Subject to § 382 Limitation

NOL Available		\$10,000,000	
Value of the Company		\$30,000,000	
Discount Rate		10%	
Long-Term Tax-Exempt Rate		2.47%	
	Taxable Income	NOL Utilized if No Limitation	§ 382 Limitation
Year 1	\$4,000,000	\$4,000,000	\$741,000
Year 2	\$4,200,000	\$4,200,000	\$741,000
Year 3	\$4,410,000	\$1,800,000	\$741,000
Year 4	\$4,630,500		\$741,000
Year 5	\$4,862,025		\$741,000
Year 6	\$5,105,126		\$741,000
Year 7	\$5,360,383		\$741,000
Year 8	\$5,628,402		\$741,000
Year 9	\$5,909,822		\$741,000
Year 10	\$6,205,313		\$741,000
Present Value		\$8,459,805	\$4,553,124

NOL carryforwards are typically not transferred over to a buyer in deals structured as asset sales. In these types of cases, NOLs will stay with the sellers. However, in a stock deal, NOL carryforwards are typically transferred.

An annual limitation on the NOL could significantly reduce the value of the NOL. For example, assume that a company being acquired has an NOL of \$10 million and has 10 years of carryforwards remaining. Let's further assume that this company has projected taxable income of \$4 million, growing at 5 percent annually. The company is sold for \$30 million. The annual limitation of the NOL that can be used is the value of the business multiplied by the long-term tax-exempt rate. As of June 2013, the applicable federal rate is 2.47 percent.⁶ Therefore, only \$741,000 of the NOL can be used in any one year.

Table 1 illustrates how § 382 limitations could significantly affect the present value of the future tax savings. Due to the annual limitation, the company with a change in ownership could only offset a fraction of its taxable income, whereas if there was no change in control, the company could offset all of its taxable income until the NOL is fully utilized.

Conclusion

In a bankruptcy reorganization, the value of an NOL could impact the outcome of the restructuring, but this creates a circular problem. When the reorganizer is trying to value the debtor's assets, the value of the NOL must be incorporated. The value of the NOL is calculated based on tax savings, and interest expense directly impacts these tax savings. However, interest expense is based on the level of debt with which the debtor will emerge from bankruptcy. The level of debt is dependent on the value of the company. Furthermore, the value of the NOL could vary significantly if there is a pending change of ownership. **abi**

6 Rev. Rul. 2013-12, IRB 2013-24, pages 1237-1239.

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Hot Topics in Valuation

Expert Opinion vs. Market Evidence in Contested Valuations

March 16, 2016

Presented by Jeffrey L. Jonas

Expert Opinion vs. Market Evidence in Contested Valuation

Jeffrey L. Jonas

Jill C. Wexler

The issue of valuation in bankruptcy often arises in two contexts: first, where the court seeks to make a determination concerning the debtor's solvency or insolvency for purposes of fraudulent transfer claims and, second, where the court seeks to make a determination concerning the debtor's enterprise value for purposes of plan confirmation. In both circumstances, courts routinely permit parties to submit expert opinion on the value of the debtor's business. Many courts rely on such expert opinion to resolve valuation disputes. Other courts, however, have decided that where reliable, contemporaneous market evidence is available, such evidence is the best indicator of a debtor's value.

Valuation is a highly fact-specific exercise. It is a longstanding principle that courts must make an "informed, independent judgment" based on all available evidence in contested valuations in bankruptcy. See Consolidated Rock Prods. Co. v. Du Bois, 312 U.S. 510, 520 (1941); see also Protective Comm. for Indep. Stockholders of TMT Trailer Ferry, Inc. v. Anderson, 390 U.S. 414, 444 (1968) (reversing district court's valuation determination because the district court "did not have before it all of the evidence and testimony" relevant to valuation).

But valuation is also a highly context-specific exercise. In valuation cases dealing with fraudulent transfer claims under section 548 of the Bankruptcy Code, the court must often decide whether the debtor received "reasonably equivalent value" in exchange for the transfer or whether the debtor was insolvent *as of the date of the challenged transfer*. See 11 U.S.C. § 548(a)(1)(B)(ii)(I) (trustee must show that debtor received less than reasonably equivalent value in exchange for a transfer or obligation and "was insolvent on the date that such transfer was made or such obligation was incurred"). In contrast,

valuation cases dealing with challenges to plan confirmation under section 1129 of the Bankruptcy Code, often require the court to determine whether the proposed plan is “fair and equitable” based on the *future earning capacity of the debtor*. See Consolidated Rock, 312 U.S. at 526 (enterprise value “must be based on an informed judgment which embraces all facts relevant to future earning capacity and hence to present worth”).

Deference to market evidence or expert opinion is therefore closely tied not only to the factual circumstances of each case, but also to the context in which the valuation dispute arises, as demonstrated by the cases summarized below.

Fraudulent Transfer

VFB LLC v. Campbell Soup Co.

In 1998, Campbell Soup Co. (“Campbell”) sold its Specialty Food Division to Vlastic Food International Inc. (“VFI”), the debtor’s predecessor-in-interest, for approximately \$500 million. The United States District Court for the District of Delaware, relying on the debtor’s market capitalization following the transaction, held that \$500 million represented reasonably equivalent value for the Specialty Food Division and dismissed a fraudulent transfer action brought by the debtor against Campbell. See VFB LLC v. Campbell Soup Co., No Civ.A.02-137 KAJ, 2005 WL 2234606 (D. Del. Sept. 13, 2015) (Jordan, J.). The District Court disregarded the valuation proposed by the debtor’s expert witness and concluded that “[t]here simply is no credible evidence to justify setting aside VFI’s stock price and other contemporaneous market evidence of VFI’s worth.” Id. at 26.

On appeal, the debtor argued that the District Court had erroneously dismissed its expert’s valuation in favor of market evidence. See VFB LLC v. Campbell Soup Co., 482 F.3d 624 (3d Cir. 2007) (Cudahy, J.). The Third Circuit affirmed the District Court’s decision, noting that well-informed contemporaneous market participants valued VFI well above \$500 million. Id. at 633. Id. at 633. Ultimately, the Third Circuit concluded

that “[a]bsent some reason to distrust it, the market price is a more reliable measure of the stocks’ value than subjective estimates of one or two expert witnesses.” Id.

In re Iridium Operating Co.

In Iridium Capital Corp. v. Motorola, Inc. (In re Iridium Operating Co.), 373 B.R. 283 (Bankr. S.D.N.Y. 2007) (Peck, J.), the official creditors committee brought a fraudulent transfer action to avoid prepetition payments made by the debtor to Motorola, Inc. (“Motorola”). According to the court, the Third Circuit’s decision in VFB “validates the use of market data *for purposes of valuing a public company for fraudulent conveyance purposes* and makes clear that the public markets constitute a better guide to fair value than the opinions of hired litigation experts whose valuation work is performed after the fact from an advocate’s point of view.” 373 B.R. at 291 (emphasis added). The court concluded that there was “insufficient cause to set aside the verdict of solvency and capital adequacy already given to Iridium by the public markets” and ruled in favor of Motorola. Id.

Notably, the court identified several additional indicia of reliability of Motorola’s market-based valuation: (i) the “extraordinary amount of diligence” that went into the projections on which Motorola relied; (ii) several witnesses supporting the conclusion that reasonably well-informed contemporaneous market participants believed that Iridium could become a viable enterprise; and (iii) Iridium’s ability to “access capital markets for debt and equity infusions throughout the relevant [] period.” Id. at 294-96.

In re American Classic Voyages Co.

In Am. Classic Voyages Co. v. JP Morgan Chase Bank (In re Am. Classic Voyages Co.), 384 B.R. 62 (D. Del. 2008) (Farnan, J.), the debtors appealed from the United States Bankruptcy Court for the District of Delaware’s dismissal of a fraudulent transfer action seeking avoidance of a transfer made as a loan repayment. The debtors argued that the case should be remanded for a new trial in light of the Third Circuit’s

decision in VFB, contending that the Bankruptcy Court erroneously relied upon expert testimony where a public market existed for the debtors' stock. Id. at 63-64. According to the District Court, however, VFB does not require courts to analyze the solvency of public companies using a market capitalization in all circumstances. Here, the District Court found that the expert testimony in question was "consistent with the available marketplace data" and that the expert's projections were "reasonable and reliable" when they were prepared. Id. at 64. Ultimately, the District Court concluded that the Bankruptcy Court did not err in using a discounted cash flow analysis for evaluating the debtors' insolvency. Id.

Plan Confirmation

In re Mirant Corp.

In In re Mirant Corp., 334 B.R. 800 (Bank. N.D. Tex. 2005) (Lynn, J.), the debtors proposed a plan of reorganization formulated on the assumption that unsecured creditors would not be satisfied in full. The official equity committee argued that the proposed plan undervalued the debtors, and the court held a valuation hearing lasting 27 days over 11 weeks. Id. at 809. The valuation experts retained by the debtors and the equity committee generally agreed that the debtors should be valued using traditional discounted cash flow and comparable companies analysis. Id. at 816. The court likewise found that "these methods of valuation [are] most likely to ensure that Mirant Group is valued based on the worth of its future ability to produce income." Id.

After identifying certain general variables present in all valuations, the court stated that "there are additional variables added because valuation here is not intended to establish a value for acquisition of Mirant Group, *but rather in the context of confirmation proceedings.*" Id. at 818 (emphasis added). Specifically, the court noted that (i) chapter 11 cases bring about altered corporate structures, and potential changes in control, that could significantly affect value and (ii) the effective date of the proposed plan may occur long after the valuation data grows stale. Although the court expressed

serious “misgivings” about the accuracy of its valuation of the debtors, it ultimately concluded that even these misgivings do not “mean the existing tools are not to be used to gauge value.” Id. at 820.

In re Exide Techs.

Several parties, including the official creditors committee, objected to confirmation of the plan proposed by debtor Exide Technologies. See In re Exide Techs., 303 B.R. 48 (Bankr. D. Del. 2003) (Carey, J.). To decide these objections, the court considered competing valuation testimony offered by experts for the creditors committee and the debtor. Although the parties’ experts relied on the same valuation methodologies – discounted cash flow, comparable company analysis, and comparable transaction analysis – they arrived at very different enterprise values for Exide. Id. at 59. The debtor estimated its enterprise value between \$950 million and \$1.050 billion, while the creditors committee estimated Exide’s value between \$1.478 billion and \$1.711 billion. Id.

The court found that the debtor’s expert had made “numerous adjustments to the valuation methodologies” to “bring value calculations in line with current market value.” Id. at 66. Although the expert argued that his valuation was confirmed by the private equity process run by the debtor, the court held that these adjustments were inappropriate “*when seeking to value securities of a reorganized debtor* since the ‘taint’ of bankruptcy will cause the market to undervalue securities and future earning capacity of the Debtor.” Id. (emphasis added). Instead, the court sided with the “straight forward application of the valuation methodologies” employed by the creditors committee and denied confirmation of the proposed plan. Id. at 66, 80.

In re Chemtura Corp.

In In re Chemtura Corp., 439 B.R. 561 (Bankr. S.D.N.Y. 2010) (Gerber, J.), the official equity committee opposed confirmation of a plan proposed by the debtors and

supported by the official creditors committee and an ad hoc committee of bondholders. The equity committee argued that the plan, and the global settlement on which the plan was based, undervalued the debtors and was therefore not “fair and equitable” under section 1129 of the Bankruptcy Code. Id. at 567. Following an evidentiary hearing, the court concluded that the debtors’ enterprise value was no higher than the enterprise value underlying the plan and global settlement and confirmed the plan. Id. at 568, 590.

In deciding whether to confirm the proposed plan, the court considered not only the expert opinions provided by the debtors and the equity committee, but also considered certain “market” evidence: first, the “lack of buyers or investors for the debtors at higher values or values within the equity’s committee’s range” and, second, that the “overwhelming majority of [sophisticated creditors and bondholders] elected to take the maximum recovery in cash, rather than stock” in the reorganized debtors. Id. at 586-87. The court stated that this market information “informs, though it does not solely support, my conclusion that the Debtors have met their burden as to value here.” Id. at 586.

Conclusion

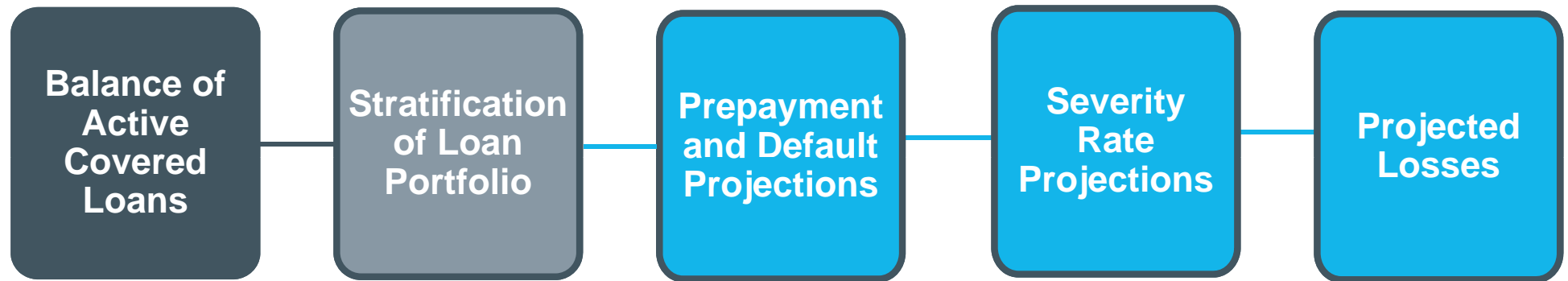
Creditors fighting against market evidence often face an uphill battle in persuading a court that expert opinion is superior evidence of a company’s value. Although it is widely acknowledged that market evidence may not be reliable because it is “tainted” by bankruptcy, subject to general inefficiencies in the relevant market, and/or compromised by management, insiders, and other principal parties’ biases, creditors that may be out-of-the-money on a market valuation basis should take careful note of these decisions and present specific arguments as to why market valuation evidence may not be the best indicator of the company’s value such that the court should rely on expert valuation testimony.

Valuation of RMBS-related claims

March 16, 2016

Presented by Allen M. Pfeiffer

Projected Losses Flow Chart



Projecting Collateral Losses

The Put-Back Claims are the realized losses and the outstanding balance plus accrued interest for Covered Loans in which a breach of the Representations and Warranties has been identified.

- For liquidated loans with losses, the Put-Back Claim equals the losses multiplied by a cohort-specific breach rate.
- For active loans, the Put-Back Claim is the current balance plus accrued interest, where the settling party repurchases the loan out of the trust.
 - If the settling party is unwilling or unable to repurchase the defective mortgage loans, the Put-Back Claim derives from the expected projected losses.
- Losses are projected via trust-level assumptions derived to estimate future cash flows.
 - Assumptions include the monthly prepayment rate (“Conditional Prepayment Rate” or “CPR”), the monthly default rate (“Conditional Default Rate” or “CDR”), and the loss upon default (“Severity”).
- Severity rates reflect the percentage of loss on the remaining unpaid principal balance at the time a loan is liquidated.
 - For example, a \$100,000 default with a net recovery of \$75,000, has a severity rate of 25%.

Prepayment, Default, and Severity Projections

- In order to build the CPR, CDR, and Severity assumption sets, we take the following into account:
 - Historical performance for each trust.
 - The amount of loan balance that is seriously delinquent; 90 or more days late.
 - Industry research regarding similar products historical and projected performance.
- Each Trust comprises an homogenous set of loans regarding the date of origination and the type of loan.
 - This allows a comparison of assumption sets across trusts with similar characteristics.
- Results are benchmarked against other trusts possessing similar characteristics, taking into account each specific trust's performance to date, remaining outstanding balance, and level of current delinquencies.



Valuation of Social Media Assets

Professor Israel Shaked

Valcon2016

Emerging Issues in Bankruptcy and Beyond

March 16, 2016 • Las Vegas, Nevada

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I.

Conclusions of Law: Determining whether social media constitutes property of the debtor

All quotes in Part I 'Conclusions of Law' reference IN RE: CTLI , LLC, Debtor.
Memorandum signed April 3, 2015 by Jeff Bohm, Chief United States Bankruptcy Judge

• “Court recognizes that the landscape of social media is yet mostly uncharted in bankruptcy. However, to ignore the value of social media assets would do injustice to debtors and creditors alike.”

• “What social media property belongs to the reorganized corporate Debtor as opposed to Mr. Alcede, personally?”

- “The code defines “property of the estate”, with enumerated exceptions, as “all legal or equitable Interests of the debtor in property as of the Commencement of the case.”
- “Like subscriber lists, business social media accounts provide valuable access to customers and potential customers.”
- “The fact that this was a Page (for “businesses, brands and organizations,” not “individual people”) entitled “Tactical Firearms” raises a presumption that it was the Debtor’s Facebook Page, is now the reorganized Debtor’s Facebook Page, and has never been Mr. Alcede’s personal Facebook Page.”

- “The fact that Mr. Alcede gave an employee of Tactical Firearms access to post to the Page through a paid marketing tool, and the fact that he gave a vendor access specifically to promote the company’s products, supports the conclusion that the Tactical Firearms Facebook Page is a business Page.”
- “Mr. Alcede’s use of Facebook Messages to communicate with customers through the former Tactical Firearms Facebook Page, in addition to his clearly business-related posts, is strong evidence that the former Tactical Firearms Facebook Page is a business Page.”

- “The Goodwill an Individual Employee Contributes to the Value of a Business Social Media Account Is Either Business Goodwill that Remains in the Account, or Professional Goodwill that Follows the Individual.”
- “The goodwill of a company is developed by its employees over the years. Nonetheless, whatever goodwill the individual caused to be associated with the business remains property of the business.”

•“In conclusion, this Court finds that the social media accounts of Tactical Firearms were, pre-confirmation, property of the estate, and there is no reason not to treat them as the Court would treat any other assets belonging to the estate.”

II.

Valuation of the Social Media Assets

All quotes Part II RE: J. Loughnane, D. Plastino, and E. Altman,
"Valuation of the Social Media Assets". ABI Journal, December 2015.

Cost Approach

- “The historical cost of building a Facebook or Twitter following has little relevance today.”
- “Replacement and reproduction costs (e.g., the cost of building an identical or substantially similar social media profile today) may be marginally more useful than historical cost.”
- “The cost approach is likely to yield an inaccurate valuation of a business’s social media assets.”

Market Approach

- “Unfortunately, at this point, the data to perform [comparables multiples] calculations is scarce to nonexistent.”
- “It is unlikely that the available data would permit an accurate valuation of social media assets using the market approach.”
- “Even if such information does begin to become available, underlying differences in demographics, spending habits and “conversion values” (i.e., the percentage of followers that can be converted into customers) among social media user bases may still complicate the application of this approach.”

Income Approach

- “Given the current data limitations regarding social media transactions, the income approach may often be the most applicable method for valuing a company’s social media presence.”
- “The income approach directly addresses the future value that can be created by social media for the business. It is based on specific estimates of the cash flows that a social media presence creates for a company.”

Income Approach cont.

- “Online analytics are not perfect, there is always the possibility that consumers impacted by a social media campaign will buy at brick-and-mortar stores, or via some other means not tracked by analytics.”
- “To value a social media account on a standalone basis, the discount rate should reflect the risk of that particular social media asset, which might be quite different from the risk profile of the business as a whole.”
- “When valuing an operating business, it is generally assumed that the company will continue to operate in perpetuity. Thus, a terminal value is included. However, many intangible assets (such as patents, contracts or licenses) have finite lives. In these cases, it is common to forecast cash flows for the life of the asset and include no terminal value.”

Value & Cents II

By JOHN G. LOUGHNANE, DAVID PLASTINO AND EVAN ALTMAN

Valuation of Social Media Assets

The Bankruptcy Code provides that property of an estate consists of “all legal or equitable interests of the debtor in property as of the commencement of the case.”¹ That broad definition is expansive enough to encompass the social media accounts of a debtor, as recently confirmed in *In re CTLI LLC*, which determined that various social media accounts constituted estate property.²

In *CTLI*, the court confirmed a chapter 11 plan for the business debtor, proposed by a minority shareholder, over the objection of the former majority owner. The confirmation order required that the “social media accounts, including but not limited to, Facebook and Twitter” related to the business debtor be delivered to the new owner of the reorganized company.³

The *CTLI* court correctly observed that “to ignore the value of social media assets would do injustice to debtors and creditors alike.”⁴ However, the court was not required to determine a value for the accounts in that case. Given the popularity of social media and the critical role of valuation in the bankruptcy process, it is a virtual certainty that such valuation issues will arise in future cases. In anticipation of such issues, this article explores methodologies for valuing social media assets. As a starting point, it is appropriate to consider the value ascribed to such accounts in nonbankruptcy contexts.

to promote products on social media. For example, Kim Kardashian, who has millions of social media followers, reportedly charges a minimum rate of \$750,000 to \$1 million to endorse products on her social media accounts.⁵ Tweets from athletic superstars such as LeBron James have been valued at \$1,000 per character.⁶

Clearly, a social media presence could add value to a debtor, particularly a business debtor, if managed properly. However, there is limited research on the topic of social media valuation at present. The research that does exist seems to validate the common-sense assessments made above. For example, a recent study by McKinsey & Co. concluded that “fully networked enterprises are more likely to be market leaders and also more likely to have higher margins than companies using the Web in more traditional ways.”⁷ The more difficult question, then, is how to appropriately value a social media presence — especially in the bankruptcy context.

Basic Valuation Methodologies for Intangible Assets

Although valuation of social media assets is not addressed in the academic or practitioners’ literature, social media presences and the customer relationships they promote are part of a broader asset category known as “intangible assets.” Given the similarity of social media assets to other intangible assets (such as trademarks, patents, customer lists and other items with no physical manifestation), the valuation literature in this area provides a logical starting point.

Intangible assets may be valued using three general approaches: cost, market and income. These methods are similar to those used to value businesses as a whole, but differ in their means of application.

Cost Approach

The cost approach to valuing intangible assets is based on the assumption that no one would pay more for an asset than it would cost to create it. Within the framework of the cost approach, there are three definitions of cost: historical, replace-

Social Media Value Outside of Bankruptcy

Market evidence supports the court’s observation in *CTLI* that a social media presence can be an asset that has value — potentially significant value — to a debtor’s estate. One indication of this value is the large sum that companies have spent developing and maintaining a viable presence on Facebook, Twitter, Tumblr, Google+ and other platforms, and creating marketing campaigns that utilize these mediums. Indeed, a multi-billion dollar industry has been created to help firms manage their social media footprint, including companies such as Hootsuite and Hubspot.

Further validating the premise that social media exposure has value, various media reports have noted the large sums paid to athletes and celebrities



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1 11 U.S.C. § 541.

2 *In re CTLI LLC*, 528 B.R. 359 (Bankr. S.D. Tex. 2015), *appeal dismissed*, 15-cv-01063 (S.D. Tex.). For more on this case, see Andrew C. Helman, “Debtor Owns Social Media Accounts Created by Its Former Principal,” XXXIV *ABI Journal* 7, 26-27, 66-67, July 2015, available at abi.org/abi-journal (unless otherwise specified, all links in this article were last visited on Oct. 20, 2015).

3 *Id.*, 528 B.R. at 364.

4 *Id.*, 528 B.R. at 378.

5 Barbara Herman, “Kim Kardashian Demands Up to \$1M for an Endorsement, Leaked Emails Reveal; Worth It?,” *International Business Times* (Oct. 21, 2014), available at www.ibtimes.com/kim-kardashian-demands-1m-endorsement-leaked-emails-reveal-worth-it-1708667.

6 Darren Rovell, “LeBron James-Sponsored Tweets Valued at \$140K, or \$1K Per Character,” *ESPN.com* (Aug. 20, 2015), available at espn.go.com/nba/story/_/id/13470682/lebron-james-sponsored-tweets-232-million-followers-cost-140k.

7 David Gilfoi and Charles Jobs, “Return on Investment for Social Media: A Proposed Framework for Understanding, Implementing and Measuring the Return,” *Journal of Business & Economic Research* 638 (2012), available at www.cluteinstitute.com/ojs/index.php/JBER/article/view/7363.

ment and reproduction. Historical cost, typically the book value of an intangible asset, defines “value” as the original cost to acquire it.⁸ Replacement cost is the estimated cost to construct an asset “with equivalent utility to the subject intangible.”⁹ Reproduction cost is the cost to create an “exact duplicate or replica of the subject intangible asset.”¹⁰ In other words, replacement cost evaluates the price of a *comparable* intangible asset, while reproduction cost evaluates the price of acquiring an *exact replica*.

An advantage of the cost approach, particularly historical cost, is simplicity. However, the cost approach is limited in that it does not address the actual value that the intangible asset could achieve through a sale, or via future earnings. Focusing on cost is likely to significantly underestimate an asset’s value in many cases. Thus, some experts consider the cost approach most useful when deriving a minimum value for an intangible asset.¹¹

Market Approach

The market approach estimates the value of an intangible asset by comparing it to other intangible assets with known values. Although identical intangible assets are typically difficult to find, similar intangible assets are often used to determine an approximate range of values for the subject being analyzed.

The common application of the market approach is the sales-transaction method, which determines the value of the intangible subject by using the actual sales price of market transactions for similar intangible assets. For example, if a patent related to cancer treatment was sold in the past, the sales price from the transaction could be used to estimate the potential sales price of similar patents.

Income Approach

The income approach to valuing an intangible asset estimates the asset’s cash flows (either earnings or cost savings) out into the future and then discounts such cash flows back to the present using a rate of return that reflects their risk.¹² A general discounted-cash-flow approach estimates the incremental cash flows earned by the use or licensing of the intangible assets. A second related application of the income approach, known as the relief-from-royalty method, calculates the present value of the future royalty payments saved by owning the intangible asset. Theoretically, these methods should produce similar results, although in the course of real world application, this is not always the case.

Valuation of Social Media Assets

As can be seen from the above, intangible-asset valuation methods are broad enough to permit their application to social media assets. However, given that (for example) a Facebook page is quite different from a patent or a trademark, the challenge is to determine how to apply such general methods in a way that is applicable to social media assets. Undoubtedly, the facts and circumstances of each valuation event will be critical to answering that question. In this sec-

tion, a review of issues that a bankruptcy practitioner is likely to face when engaging in the process of valuing social media assets is offered.

Cost Approach

As previously discussed, application of the cost approach for valuing an intangible asset is based on the assumption that an asset’s cost is relevant. This may be a dubious proposition, particularly for social media, because social media platforms and marketing strategies are still evolving at a rapid rate. The changing media landscape may mean that the historical cost of building a Facebook or Twitter following has little relevance today. Thus, even if it were possible to calculate the historical cost of building the social media accounts owned by a debtor, such information may be of limited use — representing neither the value that the account adds to the business nor the cost of creating a similar presence today.

Replacement and reproduction costs (e.g., the cost of building an identical or substantially similar social media profile today) may be marginally more useful than historical cost. Replacement and reproduction cost-valuation methods may include estimates of salaries for social media staff, consulting fees to public relations firms, and expenses for promoted posts on Facebook or Twitter. However, performing cost computations with any degree of accuracy might be difficult. Unlike research and development activities, most companies do not have staff specifically dedicated to social media or track those costs in their financial statements, thus making future estimates difficult. Moreover, branding, advertising and marketing campaigns are often designed to cross multiple delivery platforms, making it hard to isolate the cost of the social media component alone. Lastly, and perhaps most important, spending on social media does not necessarily correspond with the creation of a valuable asset.

While it may be helpful in certain circumstances, the cost approach is likely to yield an inaccurate valuation of a business’s social media assets. Furthermore, unlike certain other intangible assets, costs to develop social media assets are likely to be difficult to calculate with any degree of certainty. Therefore, in most cases, methods other than the cost approach are likely to be utilized to value social media assets.

Market Approach

In theory, the market approach is an appropriate methodology for valuing a company’s social media presence. The arm’s-length sale of one social media account (say, a Twitter account with 100,000 followers) could be used to determine the price of a similar social media account. Multiples could be used to adjust for differences in the number of followers and differences among platforms.

Unfortunately, at this point, the data to perform such calculations is scarce to nonexistent. The authors are unaware of any public sources of information that track the sale of social media accounts, nor, to our understanding, is there an active market in such accounts at this time. Thus, it is unlikely that the available data would permit an accurate valuation of social media assets using the market approach.

As social media develops and matures, it is possible that the data to perform accurate market-approach valuations may become

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⁸ Accounting guidelines limit the research and development costs of intangible assets created internally.

⁹ Robert Reilly and Robert Schweihs, *Valuing Intangible Assets*, at 122 (McGraw-Hill 1999).

¹⁰ *Id.*

¹¹ *Id.*

¹² *Id.* at 35.

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available. However, even if such information does begin to become available, underlying differences in demographics, spending habits and “conversion values” (*i.e.*, the percentage of followers that can be converted into customers) among social media user bases may still complicate the application of this approach.

Income Approach

Given the current data limitations regarding social media transactions, the income approach may often be the most applicable method for valuing a company’s social media presence. Unlike the cost approach, the income approach directly addresses the future value that can be created by social media for the business. It is based on specific estimates of the cash flows that a social media presence creates for a company. Therefore, it is also less likely to suffer from data deficiencies such as those impacting the market approach.

In a perfect world, online analytics could be harnessed to measure, in real time, the value delivered by social media assets to the firm. For example, placement of unique promotional codes on social media accounts during a new marketing campaign will allow a company to track the origin of each sale. Other metrics that may be relatively easily tracked through online analytics are click-through rates, conversion rates and average conversion value. These measure the rate at which viewers open the promotional link to learn more, the percentage of those viewers who then make a purchase, and the average spending of those who purchase, respectively. Online analytics are not perfect; there is always the possibility that consumers impacted by a social media campaign will buy at brick-and-mortar stores, or via some other means not tracked by analytics. However, such real-time data measurement can form a reasonable basis for estimating the cash flows that might be generated by a firm’s social media assets in the coming months and years.

When creating these projections, a number of considerations might be relevant, including the projected growth of social media platforms and the number of users who access information through them. Various other inputs may be considered, including (but not limited to) the value generated by peer companies from similar activities, the historical and projected growth in the number of people that the company engages with through social media, and estimated costs to maintain an active social media presence. Regardless of how these forecasts are arrived at, only the incremental future cash flows to the business generated by social media should be considered.

Having derived a reasonable estimate of future cash flows, a discount rate must be determined. To value a social media account on a standalone basis, the discount rate should reflect the risk of that particular social media asset, which might be quite different from the risk profile of the business as a whole. As is the case for other intangible assets, the discount rate for a social media asset will most likely be higher than the discount rate for the entire business.¹³ Specific determination of that rate should include consideration of the uncertainties facing the business, as well as the uncertainty of particular

social media platforms as a medium to reach customers. For example, projected future revenues generated from a Facebook account must take into consideration not only the risk that the company’s product will fall out of favor, but that Facebook may be superseded by another social media platform that will require a new round of investment by the company.

In many income-approach valuations, a terminal value is included that represents the value of the asset or company being valued in the years beyond the explicit projection period. When valuing an operating business, it is generally assumed that the company will continue to operate in perpetuity. Thus, a terminal value is included. However, many intangible assets (such as patents, contracts or licenses) have finite lives.¹⁴ In these cases, it is common to forecast cash flows for the life of the asset and include no terminal value.

Social media is unique. In theory, a social media presence could continue generating cash flows in perpetuity. In practice, it might be difficult to support the contention that the amounts invested today in creating a robust Facebook page, for example, will continue to hold value 5-10 years in the future. In short, the cash flows accruing to a business from social media assets might be too speculative to assign a terminal value. However, this will depend on the facts and circumstances of each valuation situation. Having determined the future cash flows and discount rate, as well as a terminal value (if applicable), those cash flows can then be discounted back to the present to derive the value of the subject social media assets.

While the authors believe that the income approach is often presently the best method to value social media assets, applying this method does not come without risks. As with all applications of the income approach, the quality of the assumptions made and the data relied upon will impact the reliability of the value derived from it. Significant risks exist when forecasting future cash flows. Moreover, given the lack of empirical research determining discount rates for social media assets, a major question mark hangs over this important input. While it may be helpful to note that social media discount rates will often be higher than a firm-wide discount rate, the question remains as to what the magnitude of that premium should be.

Conclusion

CTLI determined that social media accounts could constitute property of a debtor’s estate. To this point, there has been no discussion of how to value such assets and certainly no consensus on the best approach. In the authors’ view, fundamental valuation methodologies, which have already been adapted to value other intangible assets, can be adapted to value social media assets. Given the nature of social media assets and the scarcity of comparable transactions data, the income approach may prove to be the most relevant methodology, at least until the shortage of comparable market data is addressed. However, application of the income approach, as well as other methods, however, will be dependent on the nature of the business and social media asset being valued and (in particular) the availability of data. **abi**

¹³ *Id.* at 194.

¹⁴ *Id.* at 213.