AMERICAN BANKRUPTCY INSTITUTE

VALCON 2023

Corporate Valuation: Before, During and Post-Pandemic

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2023

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MSG
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Assist businesses with turnarounds, financial reporting, forensic accounting, valuation, executive compensation and employee training

Advise stakeholders on mergers, acquisitions, divestitures, valuation, restructuring and financing activities

Provide law firms economic and financial analysis, valuations, discovery assistance, forensic investigations, modeling, report preparation, and oral testimony

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Dr. Israel Shaked – Biography

- Dr. Shaked is a Professor Emeritus at Boston University's Questrom School of Business and the Managing Director of The Michel-Shaked Group. For over 43 years, he has taught courses at the doctoral, graduate and undergraduate levels on various topics, including business valuation, corporate finance, financial institutions and markets, and financial economics. His practice at MSG focuses on valuation, bankruptcy, accounting, securities, capital markets, employment, and pensions and retirement plan issues.
- For over four decades, Dr. Shaked has been retained as an consultant and testifying expert in numerous cases involving bankruptcy, securities, M&A, valuation, tax, damages and other commercial litigation matters.
- Dr. Shaked published numerous articles and four books including "A Practical Guide to Bankruptcy Valuation".
- Dr. Shaked has a Doctor of Business Administration (DBA) from the Harvard Graduate School of Business Administration. In addition, he has an MBA with a concentration in Finance, a BA in Economics, and a BA in Statistics from the Hebrew University of Jerusalem.

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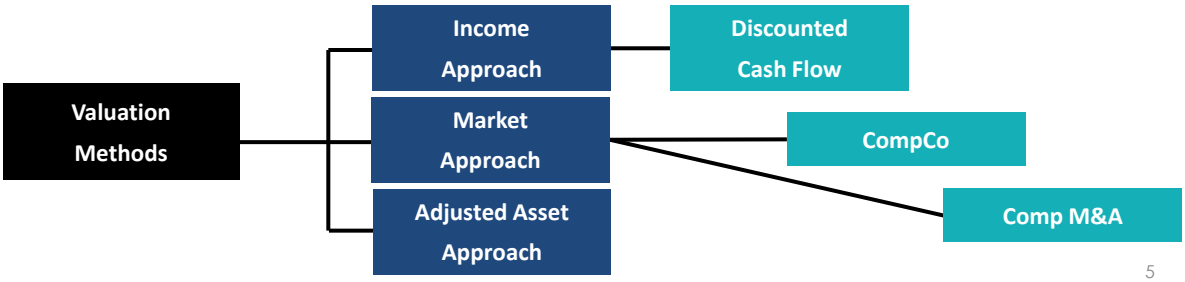
Overview of Valuation Methodologies

- The income approach is most often represented by the Discounted Cash Flow ("DCF") methodology.
- The market approach consists of analyzing comparable publicly traded companies that are reasonably comparable to the subject company ("CompCo"), and comparing actual transactions of similar businesses to the subject company ("CompM&A").



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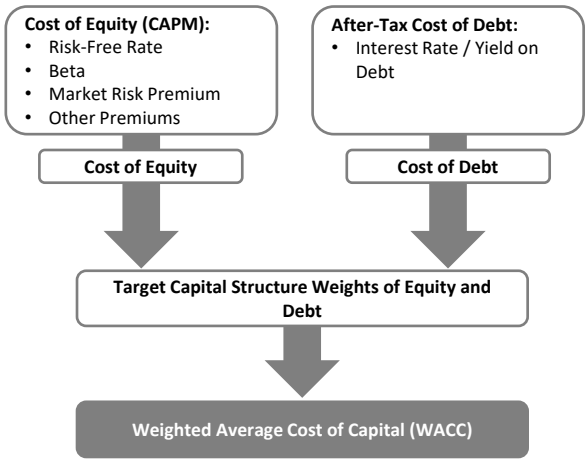
Weighted Average Cost of Capital



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Cost of Equity (CAPM)

$$Re = Rf + \beta(Rm - Rf) + Rs$$

- **Re** = the cost of equity
- **Rf** = the risk-free rate (based on US treasury bonds)
- **β** = the Beta, or measure of systemic risk
- **(Rm – Rf)** = the equity risk premium
- **Rs** = other premium(s), typically related to firm size, country risk or a specific risk borne by the subject company

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Estimating Systematic Risk (Beta)

$$Re = Rf + \beta(Rm - Rf) + Rs$$

- Beta is a measure of a company's **systematic risk**
  - Beta represents operational risk or business risk. This risk cannot be diversified away.
- Instances when it may not be possible or meaningful to simply run a regression to calculate Beta:

Privately Held Company	Highly Distressed Company
Recent IPO	Drastic Change in Capital Structure
Corporate Divisions	Shock to the Economy (e.g., pandemic)

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Estimating Systematic Risk (Beta)

$$Re = Rf + \beta(Rm - Rf) + Rs$$

Before the Pandemic	During the Pandemic	After the Pandemic
5-Year Monthly Beta as of Valuation Date	5-Year Monthly Beta as of Before the Pandemic	2-Year Weekly Beta as of Valuation Date

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Stock Market Volatility During the Pandemic

Source: CapitalIQ.

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Beta Case Study: Chesapeake Energy

Chesapeake Peer Company Beta Comparison: Before and During Pandemic

Beta Comparison Company Name	Dec. 2019 Unlevered 2 Yr. Beta	Nov. 2020 Unlevered 2 Yr. Beta
Cabot Oil & Gas	0.62	0.61
Comstock Resources	0.52	0.33
EQT Corporation	0.86	0.44
Marathon Oil	1.08	0.73
Murphy Oil	0.81	1.28
Range Resources	0.66	0.53
MEDIAN	**0.74**	**0.57**
Relevered Beta	**1.03**	**0.80**

WACC Before the Pandemic = 8.5%

WACC During the Pandemic = 7.1%

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Other Cost of Equity Inputs

$$Re = Rf + \beta(Rm - Rf) + Rs$$

Risk Free Rate (20-Year Treasury)

Market Risk Premium (Supply-Side ERP)

Pre, During, Post – Pandemic: as of Valuation Date

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Guideline Transaction Methodology (Comp M&A)

Overview of Guideline Transaction Methodology

Select Comparable Transactions

↓

Determine Multiples from the Transactions

↓

Apply Multiple to Derive Enterprise Value

Challenges to Implementing Methodology Due to the Pandemic

- Are any of the comparable transaction the result of a distressed acquisition due to the pandemic?
- Do acquisition multiples paid prior to the pandemic, represent the value of the subject company in a "post-pandemic" world?

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Guideline Transaction Methodology (Comp M&A)

What is the appropriate time period to screen for transactions?

Before the Pandemic	During the Pandemic	After the Pandemic
↓	↓	↓
3-5 Years Prior to the Valuation Date	No Transactions Prior to Pandemic	Use Transactions Prior to pandemic?

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Comp M&A Case Study: Chesapeake Energy

- In Chesapeake, the valuation expert utilized transactions after the start of the pandemic but before the valuation date (12/31/2020):
  - 2020 saw a wave of consolidation in the E&P sector that provided **timely** transaction data for purposes of valuing CHK.
  - Transactions after the start of the pandemic reflect market views in "post-pandemic" world.

Date Announced	Target	Acquirer	Deal Value
10/20/20	Parsley Energy	Pioneer Natural Resources	$ 7,621
10/19/20	Concho Resources	ConocoPhillips	13,337
09/28/20	WPX Energy	Devon Energy	5,631
08/12/20	Montage Resources	Southwestern Energy	874
07/20/20	Noble Energy	Chevron	13,000

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Comparable Company Methodology (CompCo)

Overview of Comparable Company Methodology

Select Comparable Companies

Determine Peer Group Multiples

Select an Appropriate Range

Apply Multiples to Derive Enterprise Value

Challenges to Implementing Methodology Due to the Pandemic

- Are the operating metrics used to value the subject company "normalized" to reflect its new normal?
- Historical operating metrics may no longer be relevant.

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Comparable Company Methodology

What is the appropriate multiple to use?

Before the Pandemic	During the Pandemic	After the Pandemic
LTM or Forward Looking	Forward Looking	Often Forward Looking

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Corporate Valuation: Before, During and Post-Pandemic

- **Estimation of Systematic Risk (Beta)**:
  - **Before** - 5-Year Monthly Beta as of Valuation Date
  - **During** - 5-Year Monthly Beta as of Before the Pandemic
  - **After** - 2-Year Weekly Beta as of Valuation Date
- **Other Cost of Equity Inputs (e.g., risk-free rate, market risk premium)**:
  - **Before, During and After** – As of Valuation Date
- **Guideline Transaction Methodology (Comp M&A)**:
  - **Before** - 3-5 Years Prior to the Valuation Date
  - **During** - No Transactions Prior to Pandemic
  - **After** - Use Transactions Prior to pandemic?
- **Comparable Company Methodology (CompCo):**
  - **Before** - LTM or Forward Looking
  - **During** - Forward Looking
  - **After** - Often Forward Looking

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Credit Analysis: Before, During and Post-Pandemic What Didn't Happen

Dr. William Chambers
Fathom Analytics

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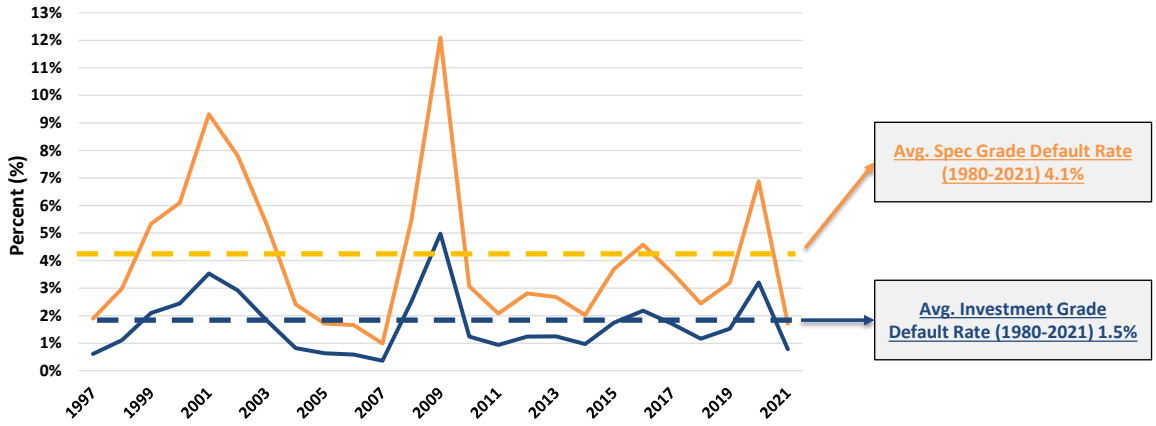
Moody's Historical Corporate Bond Default Rate 1997-2021



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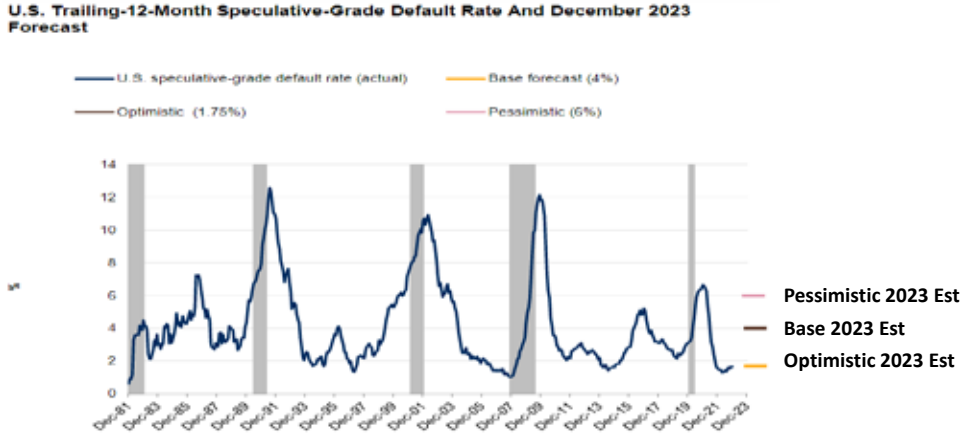
Source: Moody's Investor Service.

S&P Trailing 12-Month Spec-Grade Default Rate & Dec. 2023 Est.



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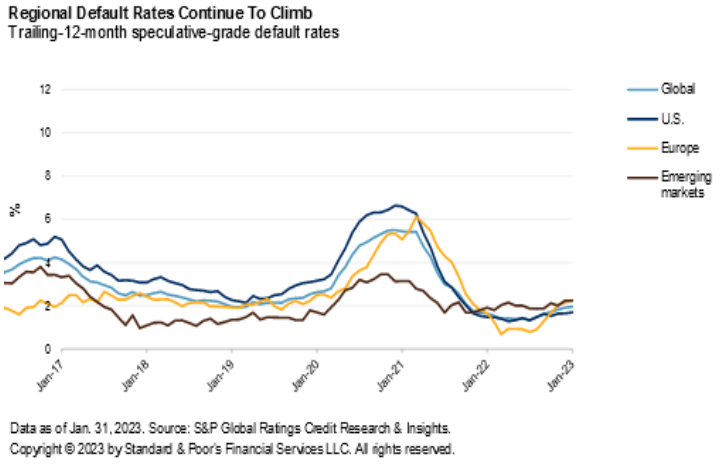
Note: Shaded areas are periods of recession as defined by the National Bureau of Economic Research.
Source: Standard & Poor's, "Default, Transition, and Recovery: Growing Strains Could Push The U.S. Speculative-Grade Corporate Default Rate to 4% By December 2023.

Defaults Start to Rise – Not Just in the U.S.



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Source: Standard & Poor's.

S&P Speculative Grade Default Rate

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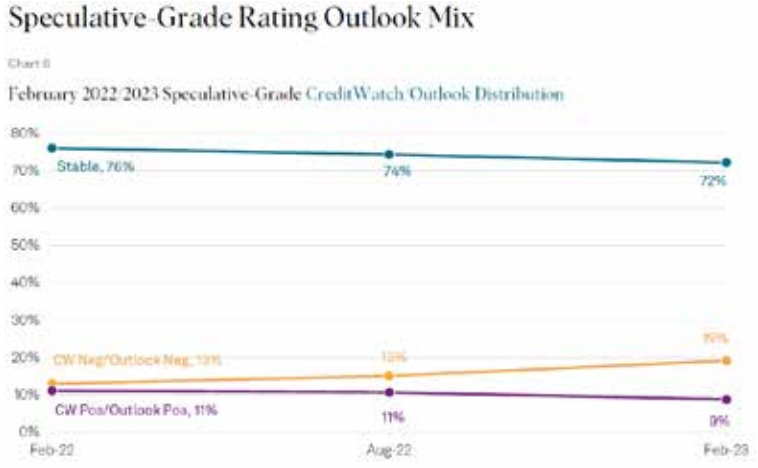
Source: Standard & Poor's Global Ratings Leveraged Finance, "Market Insights: U.S. and Canada Summary Report," March 10, 2023, p. 4.

S&P Spec. Grade Ratings Outlook Trending Slightly Downward



Source: Standard & Poor's Global Ratings Leveraged Finance, "Market Insights: U.S. and Canada Summary Report," March 10, 2023, p. 5.

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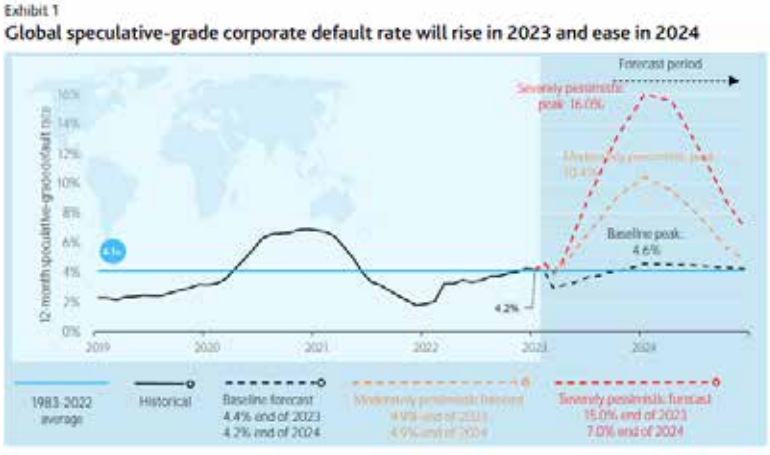
Moody's Historical & Projected Speculative Grade Default Rate



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Source: Moody's Investor Service, "Annual default study: Corporate default rate will rise in 2023 and peak in early 2024," March 13, 2023, p. 1.

S&P Distress Risk Factors 2019-2022

	U.S. unemployment rate (%)	Fed survey on lending conditions	Industrial production (% change YoY)	Slope of the yield curve (10-year less 3-month) (bps)	Corporate profits (nonfinancial) (% change YoY)	Equity market volatility (VIX)	High-yield spreads (bps)	Interest burden (%)	S&P Global Ratings distress ratio (%)	S&P Global Ratings U.S. SG negative bias (%)	Ratio of downgrades to total rating actions (%)*	Proportion of SG initial issuer ratings 'B-' or lower (%)	U.S. weakest links (no.)	Bank Loan Delinquency
2019Q1	3.8	2.8	0.6	1	4.2	13.7	385	9	7	19.8	73.3	39.6	150	1.55
2019Q2	3.6	-4.2	-0.6	-12	7.2	15.1	416	9	6.8	20.3	67.3	40.8	167	1.45
2019Q3	3.5	-2.8	-1.5	-20	5	16.2	434	9	7.6	21.3	81.5	37.7	178	1.46
2019Q4	3.6	5.4	-2	37	1.7	13.8	400	8.8	7.5	23.2	81	39.6	195	1.47
2020Q1	4.4	0	-4.9	59	-4.1	53.5	850	9	35.2	37.1	89.9	54.8	316	1.52
2020Q2	11	41.5	-10.6	50	-17.5	30.4	636	9.2	12.7	52.4	94.6	71.7	429	1.50
2020Q3	7.9	71.2	-6.3	59	1.1	26.4	577	7.9	9.5	47.5	63.3	45.5	390	1.58
2020Q4	6.7	37.7	-3.6	84	-4.9	22.8	434	8.1	5	40.4	50	57.9	339	1.64
2021Q1	6.1	5.5	1	171	13.8	19.4	391	7.6	3.4	29.9	30.6	49.5	265	1.48
2021Q2	5.9	-15.1	9.2	140	37.5	15.8	357	7.2	2.3	20.6	24.1	41.8	191	1.32
2021Q3	4.8	-32.4	3.9	148	14	23.1	357	7.2	2.6	16	27.3	36.1	155	1.28
2021Q4	3.9	-18.2	3.7	146	20.7	17.2	351	7.1	2.6	14.1	34.5	33.3	131	1.31
2022Q1	3.6	-14.5	4.8	180	6.1	20.6	346	7.1	2.7	12.5	36	30.9	121	1.24
2022Q2	3.6	-1.5	3.7	126	5	28.7	546	6.6	8.3	13.8	46.9	46.3	127	1.19
2022Q3	3.5	24.2	5	50	3.5	31.6	481	6.1	7.9	16.7	57.8	52.6	144	1.19
2022Q4	3.5	39.1	1.6	-54		21.7	415		7.3	19.1	76	71.4	195	1.24

Distress Ratio --- % of High Yield debt with spreads > 10%
Net rating bias -- % of negative Outlooks & CreditWatch listings - % positive Outlooks and CreditWatch listings

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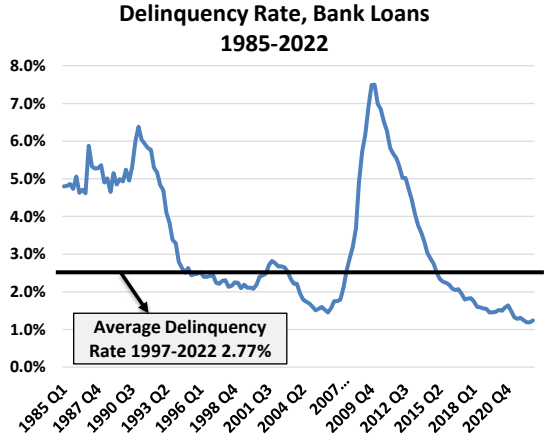
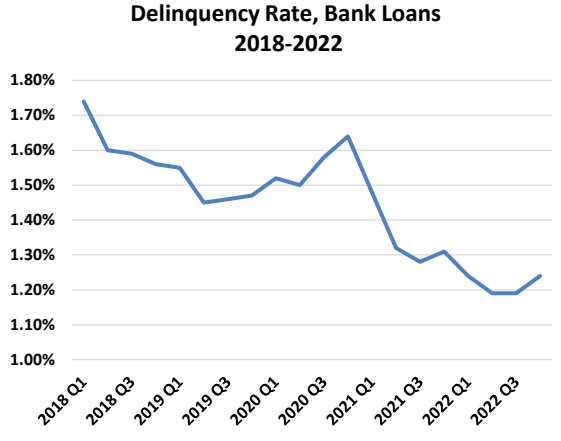
U.S. Bank Loan Delinquency Rate





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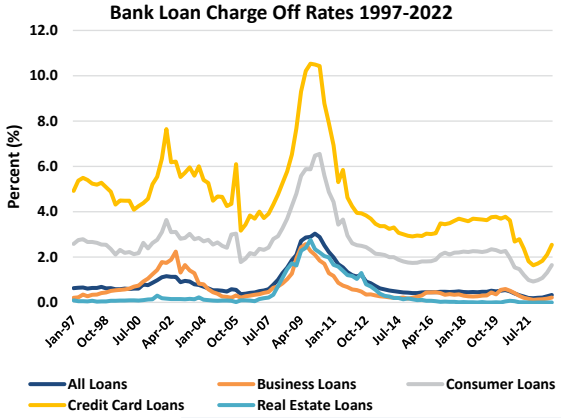
Source: St. Louis Federal Reserve (FRED) database.

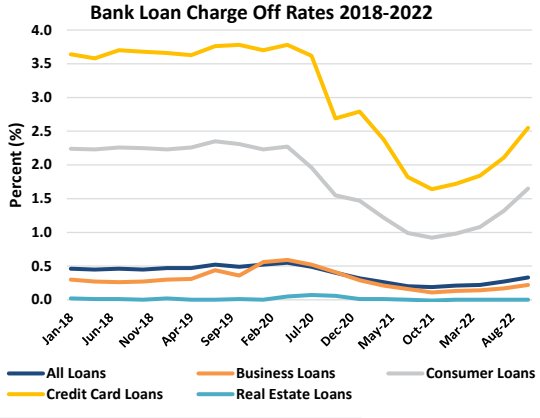
Delinquency Rates – US Bank Loans 2018-2022

Quarter	All	Real Estate Loans		Farmland	Consumer loans			Leases	C&I loans	Agricultural loans	Total loans and leases
		Residential	Commercial		All	Credit cards	Other				
2018.1	2.16	3.48	0.74	2.03	2.27	2.48	2.04	0.95	1.11	1.62	1.72
2018.2	2.02	3.22	0.71	2.13	2.26	2.50	2.02	1.03	1.08	1.71	1.65
2018.3	1.90	2.99	0.70	2.20	2.31	2.53	2.09	1.03	0.99	1.73	1.60
2018.4	1.81	2.83	0.70	2.28	2.32	2.55	2.15	1.03	0.94	1.74	1.52
2019.1	1.75	2.69	0.70	2.24	2.32	2.51	2.10	1.20	1.16	1.72	1.53
2019.2	1.68	2.60	0.67	2.31	2.36	2.59	2.12	1.09	1.07	1.83	1.50
2019.3	1.58	2.45	0.68	2.22	2.35	2.62	2.08	1.15	1.12	1.91	1.47
2019.4	1.54	2.33	0.69	2.37	2.33	2.62	2.09	1.26	1.09	2.08	1.43
2020.1	1.62	2.35	0.82	2.56	2.46	2.66	2.24	1.28	1.14	1.96	1.50
2020.2	1.75	2.54	0.92	2.59	2.00	2.46	1.64	1.54	1.28	2.17	1.55
2020.3	1.92	2.84	1.00	2.46	1.82	2.00	1.66	1.44	1.30	2.09	1.59
2020.4	1.93	2.73	1.14	2.19	1.93	2.11	1.78	1.44	1.24	1.79	1.58
2021.1	1.84	2.68	1.02	2.01	1.69	1.85	1.57	1.49	1.16	1.60	1.47
2021.2	1.69	2.48	0.93	1.79	1.53	1.60	1.50	1.31	1.07	1.49	1.37
2021.3	1.55	2.31	0.86	1.71	1.52	1.55	1.50	1.20	1.02	1.32	1.29
2021.4	1.51	2.28	0.79	1.54	1.54	1.57	1.48	1.04	1.11	1.26	1.27
2022.1	1.40	2.09	0.74	1.28	1.65	1.66	1.66	0.96	1.05	1.11	1.23
2022.2	1.32	1.97	0.72	1.20	1.80	1.85	1.79	0.99	1.04	0.95	1.23
2022.3	1.21	1.86	0.64	1.08	1.92	2.08	1.79	1.02	1.11	0.93	1.20

Source: St. Louis Federal Reserve (FRED) database.

U.S. Bank Loan Charge Off Rates





Average Charge Off Rates 1997-2022 (Percent)				
All Loans	Business Loans	Consumer Loans	Credit Card Loans	Real Estate Loans
0.83	0.67	2.63	4.60	0.40

Federal Reserve Credit Market Distress Index

Primary Market

- Issuance Volume, New & Refinancing
- Spread, Default Adjusted and Volatility

Secondary Market (buffered for outliers)

- Trading Volume,
- Liquidity – Bid-Ask spreads
- Duration -matched Market Spreads
- Default-adjusted Spreads
- Price quotes for non-traded bonds

Source: New York Federal Reserve Bank

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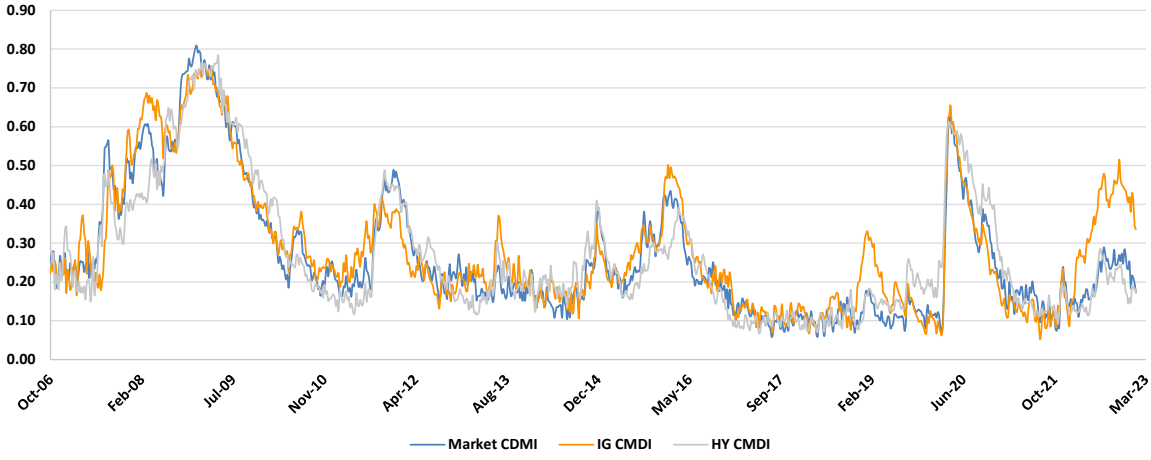
Federal Reserve Credit Market Distress Indices 2006-2023



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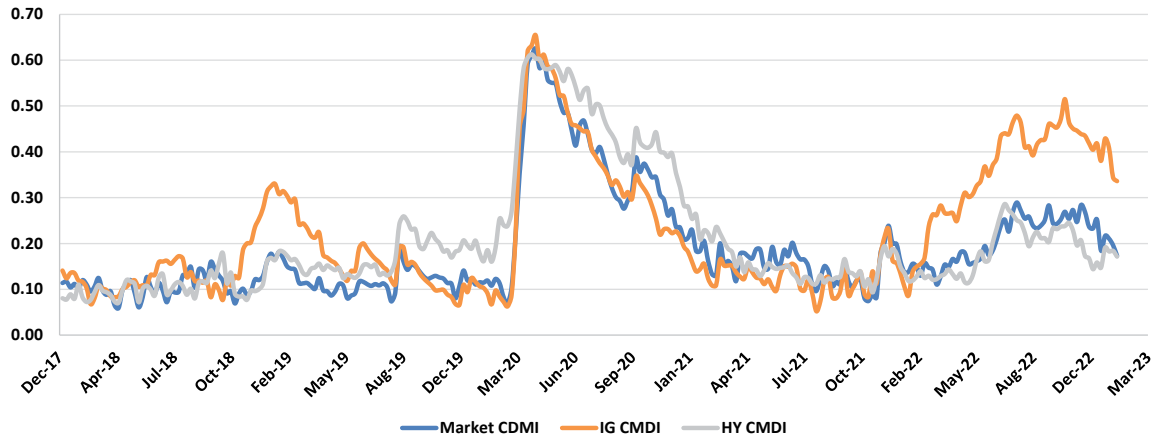
Source: St. Louis Federal Reserve (FRED) database.

Federal Reserve Credit Market Distress Indices 2018-2023



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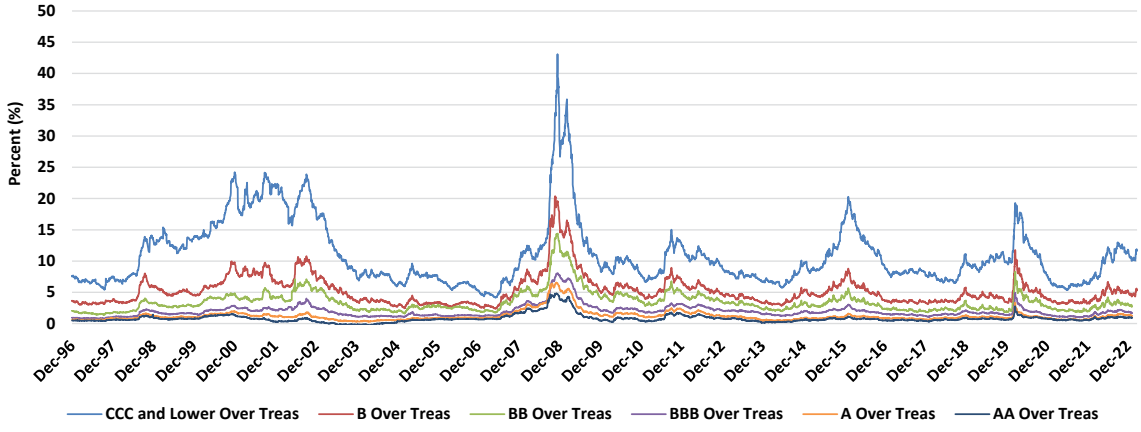
Source: St. Louis Federal Reserve (FRED) database.

Corporate Bond Spreads Over 7 Yr. Treasuries 1997-2023



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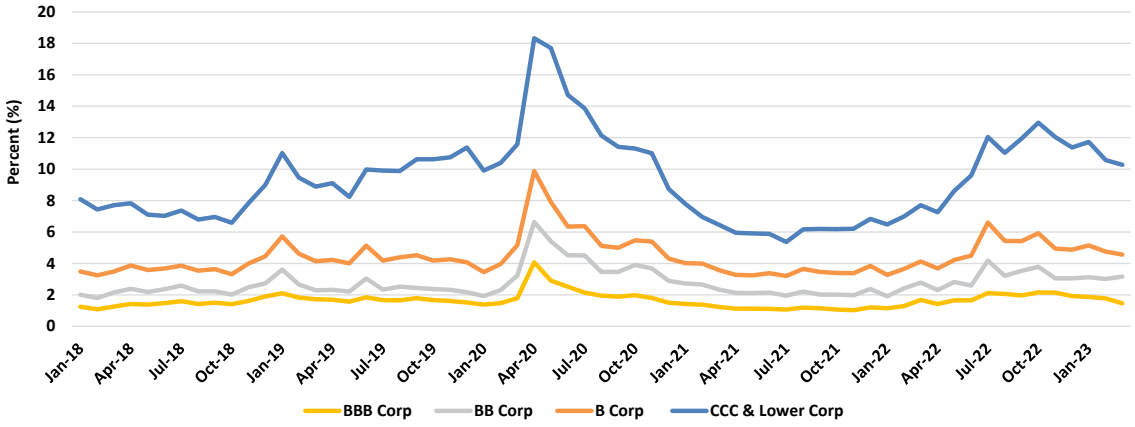
Source: ICE BofA ML Indices ; St. Louis Federal Reserve (FRED) database.

Corporate Bond Spreads Over 7 Yr. Treasuries 2018-2023



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Source: ICE BofA ML Indices ; St. Louis Federal Reserve (FRED) database.

Average Corporate Bond Spreads over 7 Year US Treasuries 2018-2023

	AA Over Treas	A Over Treas	BBB Over Treas	BB Over Treas	B Over Treas	CCC and Lower Over Treas	High Yield Index Over Treas
Jan-2018 to Feb 2020	0.67	0.96	1.56	2.34	4.4	9.25	3.83
March 2020 to Dec 2020	1.12	1.36	2.24	4.12	6.06	12.86	5.83
Jan 2021 to Feb 2022	0.60	0.69	1.17	2.18	3.47	6.29	3.14
Mar 2022 to Feb 2023	0.94	1.26	1.87	3.09	4.94	10.58	4.62
1997-2023 Average	0.80	1.22	1.97	3.45	5.23	10.92	5.23
Long Term Spread Distribution							
	AA Over Treas	A Over Treas	BBB over Treas	BB Over Treas	B Over Treas	CCC and Lower Over Treas	High Yield Index over Treas
1st Quartile	0.50	0.80	1.34	2.29	3.55	7.37	3.52
Median	0.70	1.02	1.78	2.99	4.64	9.36	4.60
3rd Quartile	0.92	1.37	2.23	4.07	6.07	12.69	6.20
Maximum	4.84	6.57	8.07	14.39	20.37	43.10	21.34
Minimum	-0.30	0.32	0.80	1.38	2.38	4.16	2.45
Average	0.80	1.22	1.97	3.45	5.23	10.92	5.23

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Source: ICE BofA ML Indices ; St. Louis Federal Reserve (FRED) database.

Corporate Bonds vs Loans -- Spreads

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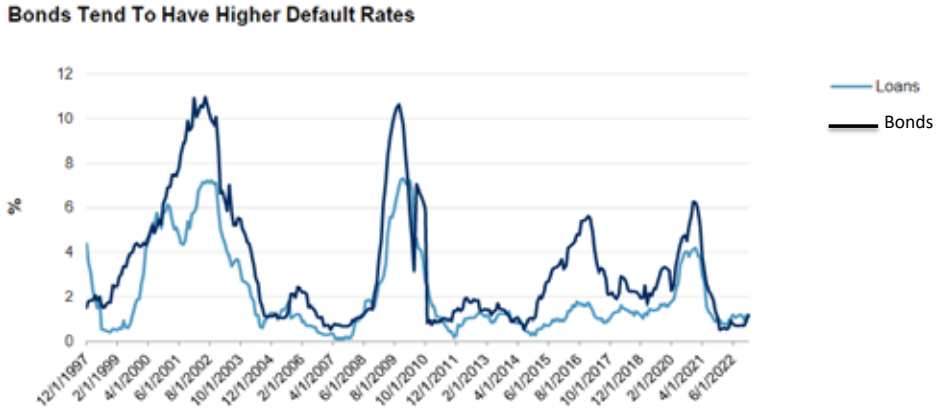
Source: Standard & Poor's, "Credit Trends: Risk Reshuffle: Loans Could Become Riskier While Bond Investors May Be Too Optimistic," March 9, 2023.

Corporate Bonds vs Loans – Default Rates



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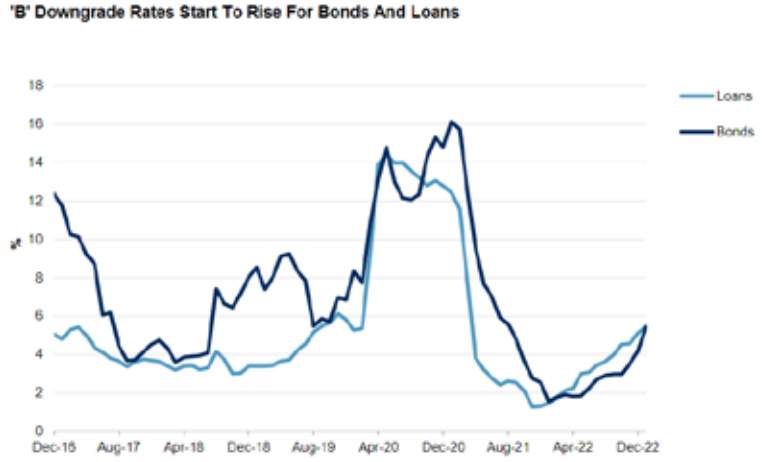
Source: Standard & Poor's, "Credit Trends: Risk Reshuffle: Loans Could Become Riskier While Bond Investors May Be Too Optimistic," March 9, 2023.

Corporate Bonds vs Loans – Credit Downgrades



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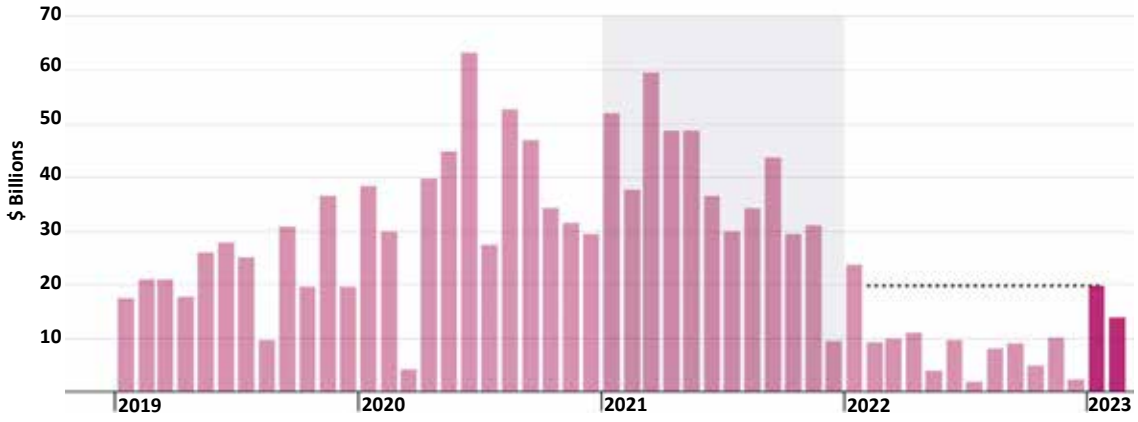
Source: Standard & Poor's, "Credit Trends: Risk Reshuffle: Loans Could Become Riskier While Bond Investors May Be Too Optimistic," March 9, 2023.

Monthly Junk Bond Issuance



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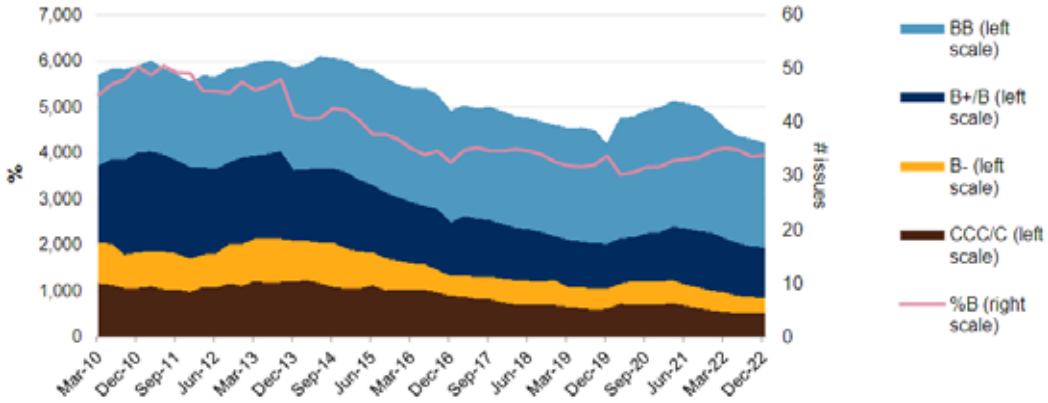
Source: LevFin Insights

S&P Rating Distribution of Speculative-Grade Bonds

Rating Distribution Of Spec-Grade Bonds Has Been Strengthening Over Time



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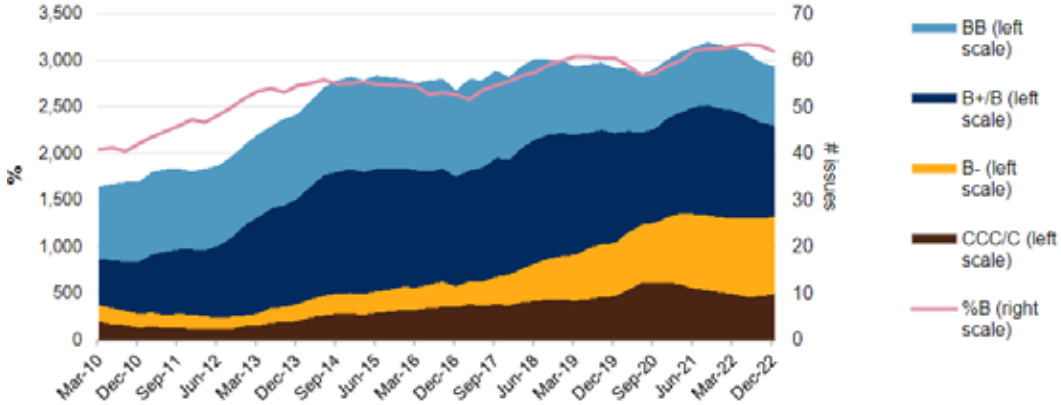
Source: Standard & Poor's, "Credit Trends: Risk Reshuffle: Loans Could Become Riskier While Bond Investors May Be Too Optimistic," March 9, 2023.

S&P Rating Distribution of Speculative-Grade Loans

While The Rating Distribution Of Spec-Grade Loans Has Weakened



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Source: Standard & Poor's, "Credit Trends: Risk Reshuffle: Loans Could Become Riskier While Bond Investors May Be Too Optimistic," March 9, 2023.

S&P Projected Recovery Following Default on New Debt Issues

Source: Standard & Poor's Global Ratings Leveraged Finance, "Market Insights: U.S. and Canada Summary Report," March 10, 2023, p. 6.

PACHULSKI STANG & ZIEHL JONES

THE IMPORTANCE AND UNCERTAINTIES OF VALUATIONS IN THE CURRENT ECONOMIC/BUSINESS CLIMATE

By: Bradford J. Sandler

In larger chapter 11 cases, valuing a debtor entity – either at some historical period (for instance, in connection with fraudulent and preferential transfer actions) or post-confirmation (for example, for purposes of the absolute priority rule and other plan confirmation issues) – has often been a significant disputed issue in bankruptcy cases. The COVID-19 pandemic wreaked havoc on many industries (early 2020 onward), and there is still persistent pricing and other economic volatility in various markets (including oil & gas and crypto assets). As a result, the issue of valuation has often been a significant issue, at times the fulcrum issue, in large chapter 11s over the past several years. And, as macro and micro economic factors continue to develop and fluctuate, and creditors' committees and junior creditors fight for a piece of the reorganized debtor or comparable value, valuations will likely continue to lead to substantial disputes and litigation.

I. IMPORTANCE/RELEVANCE OF VALUATIONS

A. In General

Valuation is commonly important in the chapter 11 process for various reasons. It may affect (i) the debtor's use of cash collateral during the case, (ii) the rights of secured creditors with regard to claim amounts and interest, adequate protection, and stay relief, (iii) the rights of creditors when a Code § 363 sale of assets is proposed, (iv) the rights of creditors to challenge confirmation of a chapter 11 plan, and (v) the potential viability of preference and fraudulent transfer actions. In many cases, valuation is the single most important issue affecting a reorganization's success.

Yet, the Bankruptcy Code says very little about the definition of "value." Section 506(a) includes an amorphous statutory instruction that "value shall be determined in light of the purpose of the valuation and of the proposed disposition or use of such property...." In numerous larger cases, there is a battle between valuation experts. Without a pandemic and other major shocks to certain markets and industries, the methods of valuation are familiar and relatively consistent. However, in the current economic environment, the importance and difficulty of valuations have grown. In some cases, persuasive advocacy may win the day in front of a bankruptcy judge (generally knowledgeable but most likely not a business valuation expert). To state the obvious, a valuation is always an estimation if there is no actual transaction, and thus open to dispute.

In the face of big swings in equity prices and uncertain business prospects, disputes over business values, including in M&A transactions, increased during and in the aftermath of the pandemic. In some instances, acquirers have cited the pandemic and material adverse effect clauses as a basis for walking away from deals. For example, Sycamore Partners, a private equity firm, canceled its pre-COVID plan to acquire a majority stake in Victoria's Secret, owned by L Brands Inc. In April 2020, Sycamore filed suit alleging that L Brands breached the terms of the deal by closing nearly all of its Victoria's Secret and PINK stores globally, without Sycamore's permission.

Certainly, pandemic- or other variable economic-related factors have played significant roles in valuation disputes in numerous chapter 11 cases in 2020 and beyond, including Neiman Marcus (Bankr. S.D. Tex.), the J.Crew Group (Bankr. E.D. Va.), Chesapeake Energy (Bankr. S.D. Tex.), and Core Scientific (Bankr. S.D. Tex.).

Faced with significant volatility and uncertainty in many markets in the midst and the aftermath of the pandemic and other related economic developments and circumstances, some commentators/analysts have argued that focusing on the valuation basics can help guide the task of quantifying business value during extraordinary circumstances.

B. Avoidance and Fiduciary-Breach Actions

Interestingly, valuation issues may also come into play in debtor's or committee's/creditors' breach of fiduciary duty claims and other malfeasance/omissions actions against directors and officers arising out of the pandemic. For instance, what happens if a company in February 2020 issued a dividend when the company was apparently solvent, but because of the pandemic hitting a month later, then did not have enough money to deal with the uncertainty of the governmental shutdowns? Would that turn what was not a fraudulent transfer in February 2020 into a fraudulent transfer because there was not adequate capital to deal with the emergency?

Generally, for purposes of preferential and fraudulent transfer actions, the relevant valuation of the debtor will be the valuation at the date of the transfer. *See e.g., In re JTS Corp.*, 617 F.3d 1102, 1109 (9th Cir. 2010). However, courts at times use "retrojection" and "projection" to, for instance, determine the debtor's (in)solvency. *See In re Bruno Machinery Corp.*, 435 B.R. 819, 838 (Bankr. N.D.N.Y. 2010).

Overall, the resolution of such issues will depend on the totality of the circumstances relevant in the particular action. However, the company's directors and officers could reasonably argue that they were blindsided by the unforeseen and unforeseeable immediate, sweeping, and adverse consequences and fallout of the pandemic, and that they had acted reasonably with the information available to them at the time of the questioned transfer. *See generally Gilbert v. Goble (In re N. Am. Clearing, Inc.)*, 2014 Bankr. LEXIS 4274, at *26 (Bankr. M.D. Fla. Sept. 29, 2014) ("The unreasonably small capital test 'analyzes whether *at the time of the transfer* the company had insufficient capital, including access to credit, for operations.'" (emphasis added)); *Am. Classic Voyages Co. v. JP Morgan Chase Bank (In re Am. Classic Voyages Co.)*, 367 B.R. 500, 513 (Bankr. D. Del. 2007) (preferential transfer action; "The facts established here demonstrate that, while the Debtors had serious financial issues in early 2001, they had taken steps to address their financial challenges and, as of the Transfer Date, had reason to be optimistic about the future. The unforeseen events of September 11, 2001 dealt a fatal blow to their business. The evidence presented in this case supports the conclusion that the projections were reasonable when prepared.").

II. BASIC VALUATION CONCEPTS – DCF METHOD

Generally, business valuations are based upon consideration of three principle approaches; namely, the income, market, and cost (or asset) approaches. Each of these approaches has its own advantages and disadvantages under normal circumstances, but valuation professionals tend to give substantially more emphasis in the current environment to the discounted cash flow (DCF) method, a variation of the income approach, given its direct relevance to the entity being valued.

Under the DCF method, the asset's value is measured by the present value of the cash flows projected to arise from that asset. This method tries to capture the value of a business by calculating the net present value of cash flow from a set of financial projections of the business enterprise, using an appropriate risk-adjusted discount rate.

Valuation experts/analysts commonly develop cash flow projections for periods ranging from three to ten years, as necessary until a stable cash flow stream can be realized. Key parts of the projections include projected revenue growth, margins, operating costs, and working capital and capital expenditure requirements. Data from other companies within similar lines of business can potentially serve as good reference points.

Under normal circumstances, valuation experts and analysts look at a company's historical earnings to understand what may be possible going forward. However, many businesses performed differently during the pandemic than their historic norms. Thus, for purposes of determining value as of a certain time during the pandemic (whether for fraudulent transfer or preference actions or otherwise), transactions that occurred during the pandemic will likely be relevant because they reflect the buyers' view of the pandemic's impact on the seller company's business. But transactions from the period prior to early/mid 2020 might not be relevant, as they will not reflect the market's perception of the pandemic's impact. As risk and uncertainty increase, investors' required rate of return increases, and the value of the business decreases. Some analysts have suggested that valuations are more difficult now because the pandemic affected both the predictability of the company's future cashflows and investors' required rate of return.

Notably, in the Neiman Marcus bankruptcy in May 2020, Lazard Freres & Co. as the debtors' financial advisor largely looked past 2020 and 2021 as excessively abnormal years due to the COVID-induced recession. Some analysts have observed that such a view is largely consistent with many market participants in industries severely impacted by the downturn starting in 2020.

That said, in many cases, the debtor's financials during the pandemic could move the court to find a debtor's post-pandemic projections unreasonable or unjustified. *See In re Body Transit, Inc*., 619 B.R. 816, 828-29 (Bankr. E.D. Pa. 2020) (section 1111(b) election case; "I find that Wilusz has not fully taken into account the present economic conditions in the fitness industry arising from the COVID-19 economic shutdown and therefore, his degree of optimism unwarranted.... At a minimum, it is not presently possible to project when public health and market conditions will support the growth of business revenues the Debtor posits as the foundation of its reorganization."). In short, one size does not fit all. Not all businesses were negatively impacted by the pandemic. Some sectors experienced significant growth and prosperity. Some experienced only a mild impact to operations. Any valuation analysis must consider the specific facts and conditions of a business affecting its financial condition and operating outlook.

In particular, the discount rate is essential in estimating the present value of projected cash flows. A proper discount rate is developed from assumptions about the costs of equity and debt capital, and the capital structure of the new entity. The discount rate should reflect the financial risks that come with the projected cash flows of the restructured entity. Importantly, if the company's cash flow projections already account for the pandemic's impact, increasing or decreasing the discount rate (due to the pandemic) could double-count the pandemic's impact. Therefore, the valuation analyst must be careful not to double-count risk and thereby understate business value. In other words, if a company's cash flow has already been adjusted to fully reflect

COVID-19-related impacts over the long term, then the selection of a discount rate must be developed taking that into account.

III. VOLATILE MARKETS/INDUSTRIES

Beyond the extraordinary circumstances of the recent pandemic, many industries (like oil & gas and cryptocurrencies and businesses) are subject to various other micro and macroeconomic developments, uncertainties, risks, and volatility.

Commentators and analysts have suggested that, as the pandemic developed, analysts' earnings forecasts for companies hit hard during this period (airlines, oil, restaurants and leisure, hotels, specialty retail) were more dispersed (*i.e.*, the range of forecasts was substantial because of COVID-related uncertainties), and increased economic volatility has exerted downward pressure on many companies' valuations. *See, e.g., Schneider, et al*., "The Potential Impact of COVID-19-Induced Volatility on Business Valuation in M&A and Bankruptcy Litigation," *The National Law Review*, Vol. XI, No. 76 (March 17, 2021). The foregoing is not surprising and underscores the uncertainties of valuations during volatile periods.

A recent notable energy case was Chesapeake Energy, an oil and gas driller that filed for chapter 11 protection in June 2020 in the Bankruptcy Court for the Southern District of Texas, and which emerged out of bankruptcy in early 2021. Among other adverse circumstances, prepetition, Chesapeake Energy was subject to a global plunge in oil and gas prices, which created a prepetition liquidity crisis. According to some analysts, the post-bankruptcy company may be in a good position now, with a stronger balance sheet with low leverage and high liquidity.

In Chesapeake Energy, the debtor's plan was to convert into new equity about $7 billion in debt, out of $9 billion in total funded debt. The basic terms of the debtor's reorganization – a debt-for-equity swap of first lien claims for most of the reorganized company's equity, smaller equity allocations to junior creditors, and a related rights offering– were negotiated among certain stakeholders during the early stage of the pandemic in 2020, and were premised on a $3.25 billion valuation of the company. Some creditors asserted in pleadings that, for instance, the amount and terms of the rights offering should be modified because, as oil and gas prices rebounded during 2020, the company's valuation should be increased. Because of higher energy prices, the debtors' financial advisor revised upwards the debtors' enterprise value to between $3.5 billion and $4.7 billion, with a midpoint of $4.1 billion. The creditors' committee objected to the plan, and its objection centered on the debtors' proposed valuation; the committee maintained that the total enterprise value was over $7 billion. The committee argued that this alleged increase was justified because of, among other things, increased commodity prices and increased M&A activity in the industry.

The bankruptcy court held a 13-day contested confirmation hearing, with each party providing expert evidence to support its valuation theory. In January 2021, the bankruptcy court found the debtors had a total enterprise value of $5.13 billion, and confirmed the amended plan. By that point, oil prices were substantially higher. Among other interesting issues, the Chesapeake Energy case underscores the volatility (at times, extreme ups and downs) in valuations during and after the COVID pandemic, and that, in some cases, creditors ended up in better positions through, for instance, debt-to-equity transactions by riding out the particularly rough periods of the pandemic.

Another industry subject to extreme volatility is crypto assets and businesses, and as in the case of many energy industry debtors, crypto debtors and the exit plan and developments in their chapter 11 cases may be subject to the vagaries of the crypto markets. As an example, in the Core Scientific chapter 11 case (a cryptocurrency miner) pending in the Bankruptcy Court for the Southern District of Texas, in early March 2023, the bankruptcy court directed the appointment of an official committee of equity security holders by the U.S. Trustee (with professional fees to be subject to a $4.75 million cap), given, among other factors, the recent rise in the pricing and value of certain crypto assets which suggests the debtors are solvent and there is potentially some value for equity holders. *See* Motion for Equity Committee Appointment, Docket No. 458 in Case No. 22-90341(DRJ), Feb. 2, 2023, p. 4 ("Over the course of the Chapter 11 Cases, the trading price of Bitcoin has substantially increased, energy prices and inflation have moderated, and interest rate increases have slowed. The combined effect of these trends has led to an increase in the Debtors' value, as illustrated by the surge in the Debtors' stock price and that of comparable companies ....").

IV. CLOSING THOUGHTS

Valuation issues are usually complex and susceptible to significant litigation in larger chapter 11 cases, even in normal, ordinary times. The pandemic has made valuations more difficult and less predictable to some degree because the pandemic created a unique global economic situation across many industries. Beyond the technical aspects of accurate and reliable valuations, debtors, committees, and creditors have also attempted to use and will likely continue to use the pandemic's unprecedented economic impact to push and protect their respective interests in litigation and negotiations.

Among other factors, higher discount rates in the COVID-19 era adversely affected business values; the pandemic and its aftermath dramatically impacted the overall U.S. economy, many industries, and the financial conditions, outlooks, and valuations for many businesses across a broad spectrum. The related, continuing U.S. economic downturn and the timing and prospects for recovery are highly uncertain, and various industries remain subject to extreme volatility and unknowns.

In this environment, one takeaway is that there will continue to be many valuation disputes and litigation; but at the same time, there will likely continue to be more bargaining among the key stakeholders, given all the uncertainties and risks. Analysts and observers can dispute whether this may be a net positive development or not, but certainly, given all the recent historical and current economic, business, and political uncertainties, some reasonable range of disagreement should be expected.

Before, During, and After COVID-19: Significant Uncertainty

COVID-19 caused significant uncertainty in valuation across a number of industries:

- **Macy's**: As a result of events occurring during the first quarter of 2021, "including but not limited to Covid-19, the Company's common shares experienced a significant decline in valuation."
- **Denbury**: "The Covid-19 pandemic's effect on economic activity across the globe has resulted in a rapid and precipitous drop in demand for oil, which in turn has caused oil prices to plummet since the first week of March 2020, negatively affecting the Company's cash flow, liquidity and financial position."
- **Endo**: experienced both favorable and unfavorable impacts from the COVID-19 pandemic. Namely, significant declines in patient visits to doctors' offices, and lower prescription trends hurt revenue in its branded and generics segments, while increased demand for its critical care products bolstered the sterile injectables segment.

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Source: Reorg

Before, During, and After COVID-19: DIP Loans

Before COVID:

- Easier to obtain financing and more favorable terms to debtors; lower interest rates

During COVID:

- Lenders more risk-averse; may require more collateral, higher interest rates, or more oversight and control

"After" COVID:

- Economic outlook improved and vaccination rates increased; lenders more willing to take on risk

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Sanchez Energy Case study

Sanchez Energy Corp., et al. (Bankr. S.D. Tex. 19-34508)

Sanchez Energy and its related debtors filed bankruptcy petitions in August 2019. The Debtors sought approval of a $350 million DIP Facility, consisting of $175 million in new money and a $175 million rollup.

The Debtors testified at the contested DIP hearing that, although they had not yet conducted a valuation, "there may be value greater than $175 million," and the Debtors had received two DIP proposals with "valuation indications well within the first lien face value."

Following the contested hearing, the DIP Facility was downsized to an aggregate of $200 million, consisting of $150 million of new money and a $50 million rollup

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Sanchez Energy Case study

In March 2020, the Debtors defaulted on the DIP Credit Agreement failed to satisfy the DIP Credit Agreement milestone requiring the filing of a plan and disclosure statement that provided for payment in full in case of the DIP Facility by March 9, 2020.

The Debtors attributed the default to the "unprecedented disruption in the financial markets in mid-March due to the COVID-19 pandemic and the Russian-Saudi oil price war."

On March 27, 2020, the DIP agent filed an enforcement notice, referencing the default, terminating all remaining New Money Commitments, and declaring all Obligations and DIP Obligations immediately due and payable.

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Sanchez Energy Case study

On April 6, 2020, the Debtors filed Plan & Disclosure Statement indicating agreement with DIP Lenders that would "equitize DIP claims entirely with the DIP lenders' consent" – a substantial deviation from the DIP lenders' expectation to get paid in full.

The Debtors claimed that "drastic measures must be taken" to preserve the going concern of the business due to "extraordinary and unanticipated market circumstances" arising from "the coronavirus crisis and the unprecedented plummet in commodity prices, general turbulence in the financial markets, and a default under the Debtors' [DIP Facility]."

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Sanchez Energy Case study

The Debtors' investment banker estimated the enterprise value of the reorganized debtors on a going concern basis at approximately $65M - $95M, with midpoint of $80M.

The Valuation Analysis assumed that "no material changes that would affect value" occur between the date of filing, April 6, and May 1, 2020.

The Debtors' investment banker applied a net asset valuation analysis and a selected publicly-traded companies analysis. The investment banker also "considered" a precedent transactions analysis, but "because the precedent transactions occurred in different commodity pricing environments and other market conditions," its applicability was limited.

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Sanchez Energy Case study

The unsecured noteholders objected to the Debtors' proposed valuation as "very low", even considering the current oil prices and argued that the Debtors' could "unlock" additional value by remedying their midstream issues.

The unsecured noteholders also challenged the Debtors' proposed valuation in light of the CARES Act, which could provide "new, potential value" that wasn't being considered in the Debtors' proposed valuation

The Court conditionally approved the Disclosure Statement on an emergency basis and questioned the need for a specific valuation finding at the time of confirmation. The Debtors and DIP Lenders argued that a finding on valuation would be needed.

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Sanchez Energy Case study

Ahead of the Confirmation Hearing, the Debtors maintained that the proposed plan presented the best path forward, citing "the coronavirus crisis and the record plummet in commodity prices coupled with the general turbulence in the financial markets."

At the Confirmation Hearing, the Debtors reported there would be no valuation fight, as a global consensus was reached through mediation. As part of that mediation, the Debtors, the DIP Lenders, the Committee, and the Unsecured Noteholders Ad Hoc Group agreed on an enterprise value of the reorganized debtors of $85 million, excluding causes of action.

In their confirmation presentation, the Debtors stated they were "very close" on the terms of a plan in early March 2020, but then "the bottom fell out of the economy in general, and the commodity markets [and] the oil market, in particular," referring to the COVID-19 and OPEC crises. The Debtors also noted that the agreed enterprise value was less than the $100 million of new money borrowed under the DIP Facility.

Sanchez Energy Case study

The remaining piece of the Debtors' valuation, the post-emergence litigation, was deferred to a "Phase 3" trial before the Court. At the Confirmation Hearing, the Committee noted that its belief that the causes of action were worth "substantially more" than the Debtors' valuation of $2.6 million.

In March 2023, the Phase 3 trial began, with the Court noting that it had broad discretion to "do what's fair" in determining the proper allocation of the equity distribution, including considering the value of the Debtors' preserved causes of action and whether such value should be allocated to or offset by Secured Claims or Administrative Claims.

Closing arguments are scheduled in the case on May 4, 2023.

Before, During, and After COVID-19: Takeaways

Faculty

Dr. William J. Chambers is a credit and financial risk consultant with Chambers Consulting in Boston. He has provided expert reports and/or served as an expert witness in cases before the U.S. Tax Court, the Tax Court of Canada, the Federal Court of Australia and various other regulators and tribunals. He is an associate professor of finance (emeritus) at Boston University's Metropolitan College, where he taught both graduate and undergraduate courses in finance from 2005-16. Prior to joining Boston University, Dr. Chambers spent 22 years in the credit-rating division of S&P Global Ratings. While at S&P, he undertook and supervised credit analyses on corporate entities, utilities, financial institutions and governmental entities. For several years, he oversaw and was responsible for the credit ratings for all corporate entities domiciled outside the U.S. Throughout his work at S&P, he also was actively involved in the development, approval and implementation of credit-rating criteria and procedures. Prior to joining S&P, Dr. Chambers was the director of research for a real estate consultancy based in Toronto, a senior economist for a regional municipality in Ontario, and the director of financial planning for a large real estate developer in Dayton, Ohio. He received his B.A. from the College of Wooster in economics and history, and his M.A., M.Phil. and Ph.D. in economics from Columbia University.

Paul Dionne is a manager with The Michel-Shaked Group in New York and has more than seven years of corporate finance and business valuation experience. Has authored several articles for ABI and the *Journal of Taxation*. Mr. Dionne received his B.B.A. with a concentration in both finance and entrepreneurship in 2014 from Boston University.

Julie Goodrich Harrison is a senior associate in the Restructuring Group in the Houston office of Norton Rose Fulbright US, LLP. Her principal areas of practice are restructuring and bankruptcy, chapter 11 debtor and trustee representation, creditors' committee representation, cross-border insolvency representation, energy, and financial institutions/funds and creditor representation. Ms. Harrison has represented both plaintiffs and defendants in complex commercial litigation matters in federal courts, primarily in Texas. Her recent matters include debtor's counsel to Texas's oldest and largest generation and transmission electric cooperative, co-counsel to the unsecured creditors' committee of one of the largest publicly traded oil and gas exploration and production companies in the U.S., debtors' counsel to one of the largest providers of frac material logistics, onshore/offshore cleaning services and drilling fluid sales based in Texas and Louisiana, and debtors' counsel to a publicly traded patient-centered health care organization that includes fully operational hospitals and freestanding emergency rooms in Arizona, Colorado and Texas. Ms. Harrison has been recognized as a 2021-23 One to Watch, Bankruptcy and Creditor/Debtor Rights/Insolvency and Reorganization Law in *The Best Lawyers in America*, in 2022 as a Texas Rising Star for Business: Bankruptcy by Thomson Reuters, and in 2022 as a key lawyer in Finance-restructuring (including bankruptcy)-corporate in the *Legal 500*. She is active in the International Women's Insolvency & Restructuring Confederation (IWIRC), having served on the board of its Houston network from 2018-23. Ms. Harrison received her B.A. with honors in mathematics from Rice University in 2010 and her J.D. *magna cum laude* from the University of Houston Law Center.

Dr. Israel Shaked is a founder and managing director of The Michel-Shaked Group in Boston, where he provides valuation, expert testimony, corporate finance and business consulting services to corporations and government entities worldwide. He is also a professor of finance and economics at the Boston University Questrom School of Management and a two-time winner of Boston University's Broderick Prize for Excellence in Teaching. His academic and professional research covers such areas as valuation, bankruptcy, fraudulent conveyance, investment analysts, financial distress, LBOs, international business, mergers and acquisitions, economics, corporate structure analysis, corporate financial decisions and capital markets. Dr. Shaked was director of the Boston Chartered Financial Analysts (CFA) Examination Review Program for 19 years, as well as a co-founder and director of the Institute of Chartered Pension Professionals (ICPP). He served for 20 years as a member of the *ABI Journal* editorial board and a contributing editor. He has also authored or co-authored numerous articles and several books, including *A Practical Guide to Bankruptcy Valuation, Second Edition* (ABI 2016), and he appears regularly on television and in the press commenting on contemporary financial and business issues. Dr. Shaked has delivered hundreds of seminars to corporate executives and law firms globally, and has been engaged as an expert witness offering testimony at depositions, arbitrations and trials on numerous cases. He is renowned and relied on for his expertise in valuation matters, and his ability to explain the complexities of valuation clearly to a judge, jury, arbitrator or regulatory authority. Mr. Shaked received a B.A. in economics and a B.A. in statistics from the Hebrew University of Jerusalem, his M.B.A. with a concentration in finance from the Hebrew University of Jerusalem, and his Doctor of Business Administration (D.B.A.) from Harvard Business School.