



MARCUM
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WEBINAR

TUESDAY, MARCH 31 | 2:00 PM EDT

How Might the Value of your Business be Impacted as a Result of the Coronavirus Crisis?

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Marcum LLP has prepared these materials as part of an educational program. The information contained herein is of a general nature and is not intended to address the circumstances of any particular individual, entity or case. While every effort has been made to offer current and accurate information, errors can occur. Furthermore, laws and regulations referred to in this program may change over time and should be interpreted only in light of particular circumstances. The information presented here should not be construed as legal, tax, accounting, valuation or investment advice. No one should act on such information without appropriate professional advice after a thorough examination of the particular situation.

Speaker Introductions



**Kenneth J. Pia, Jr., CPA,
ABV, ASA, MCBA,**
Partner – Business Valuation
Industry Leader



Bill Scally, CFA
Partner - National Litigation
Advisory Services Leader



**Daniel Roche,
CPA/ABV, ASA,**
Partner - National Business
Valuation Service Line Leader

Topics To Be Covered

- How the public market has affected the multiples utilized in the valuation of a private company and the impact on short-term discount rates
- How the date of the valuation impacts value
- How transaction data in the private M&A markets affects current business valuation multiples
- How rates of returns in the public market affect the use of an income approach to valuation
- How to adjust a company's cash flow for this type of uncertainty
- Litigation impacts (Impact on Appraisal Actions/Dissolution Actions)
- Impact on Intellectual Property (IP) Valuation
- Potential planning opportunities

Valuation Theory

- Definition of value – usually based on a definition similar to:

*“the price expressed in terms of cash equivalents, at which property would change hands between a hypothetical willing and able buyer and a hypothetical willing and able seller, acting at arm’s length in an open and unrestricted market, when neither is under compulsion to buy or sell and when both have reasonable knowledge of the relevant facts.”**

*Definition of fair market value from the *International Glossary of Business Valuation Terms*, which was jointly adopted by the American Institute of Certified Public Accountants, the American Society of Appraisers, Canadian Institute of Chartered Business Valuators, the National Association of Certified Valuators and Analysts, and the Institute of Business Appraisers.

Valuation Theory

- Effective Date
 - Value is different on different dates
 - Each valuation is as of a specific date – or effective date
 - Only information that was “known or knowable” on a given effective date should be reflected in the valuation

Valuation Theory

- Value today is based on future expectations
 - An investor today (that is hypothetical buyers and sellers) bases their value opinion on what they think will happen in the future – as it is the future that will provide them a return on their investment

Valuation Theory

- Risk and Return
 - **Return** is represented by the proceeds or cash flow received by an investor from a particular investment
 - Periodic dividends/distributions
 - Proceeds when selling the investment
 - **Risk** is based on the perceived amount, timing, and likelihood of receiving those returns
 - If the return is held constant, greater perceived risk results in lower value
 - If the perceived risk is held constant, lower return results in lower value
 - If perceived risk is higher and return is lower – that's not good

Valuation Theory

- Variables that affect value:
 - Nature and history of a business
 - Economic conditions and outlook in general and industry conditions and outlook for the specific industry
 - Net asset value and the financial condition of the business
 - Earnings capacity and dividend paying capacity
 - Existence or nonexistence of intangible assets and value
 - Prior sales of stock of the company
 - Prices of stock in companies engaged in the same or similar line of business

Valuation Theory

- Variables that affect value
 - External risk elements
 - Economic conditions
 - Industry conditions
 - Government regulations
 - Stock market returns and volatility
 - Tax rates
 - Internal risk elements
 - Business operations and time in business
 - Earnings history (stable or volatile)
 - Earnings expectation (high or low growth, decline)
 - Balance sheet, financial strength (level of cash and debt)
 - Qualitative factors
 - Customer concentration
 - Sufficiency of supply
 - Management experience and depth

Valuation Theory

- National economic factors
 - Inflation
 - Interest rates
 - Unemployment
 - Consumer spending and confidence
 - Government spending
 - Equity and debt markets
 - Construction activity
 - Manufacturing activity
 - General economic growth
 - Effect of global economic conditions
- Regional and local economic factors
 - Availability of labor
 - Distribution networks
 - Regulatory environment and financial health of the State

Valuation Theory

- Industry factors
 - Variation of impact on different industries
 - Demand factors
 - Supply chain interruptions
 - Restaurants
 - Not doing well
 - Retail
 - Some doing well (Amazon, Costco, Kroger)
 - Some not doing well (Macy's, Nordstrom)
 - Technology and Communications
 - Some doing well (Zoom)

Valuation Theory

- Internal company factors
 - Revenue growth or decline
 - Profitability
 - Price declines due to competitive environment
 - Price increases due to
 - Shortages
 - Fewer competitors
 - Capital expenditures
 - Deferred – might need to catch up later?
 - Accelerated because of increased demand – excess capacity in the future?

Valuation Approaches and Methods

- Three approaches to value
 - Market Approach
 - Income Approach
 - Asset-Based (Cost) Approach

- Methods within those that we will address
 - Market Approach
 - Guideline Public Company
 - Merger & Acquisition (Transaction)
 - Income Approach
 - Discounted Cash Flow

Valuation Approaches and Methods

- Basics of the Market Approach
 - Building blocks
 - Earnings
 - Market multiple
 - Value

Valuation Approaches and Methods

- Basics of the Market Approach – Example
 - Identify companies reasonably similar to the subject company (“guidelines”)
 - Whose shares are traded on a stock exchange
 - That have been bought in their entirety
 - Derive market multiples from them
 - Value of all equity = \$900,000,000
 - Earnings = \$100,000,000
 - Market Multiple (Value/Earnings) = 9.0 times
 - Adjust multiple for risk of subject company relative to guidelines
 - For example – reduce by 25% - to 6.75 times
 - Applying this to estimate value of privately held company
 - Earnings = \$1,000,000
 - Multiple = 6.75 times
 - Value of all equity = \$6,750,000

Valuation Approaches and Methods

- Market Approach – those three elements today
 - Multiples low today (in many industries)
 - Earnings - typically based on actual, recent earnings
 - Value/Price – typically based on current risk perceptions
 - Actual/recent earnings are likely from December 31, 2019
 - Price based on risk perceptions today – which likely include expectation of decline in earnings
 - So price is already reflecting assumed lower earnings, although actual/reported earnings not affected yet
 - As time passes
 - Earnings – actual earnings likely to decline (in many industries)
 - Value/Price - will change, but initial “shock” to the price already occurred, so change in future might not be as dramatic
 - Therefore, multiples will be higher

Valuation Approaches and Methods

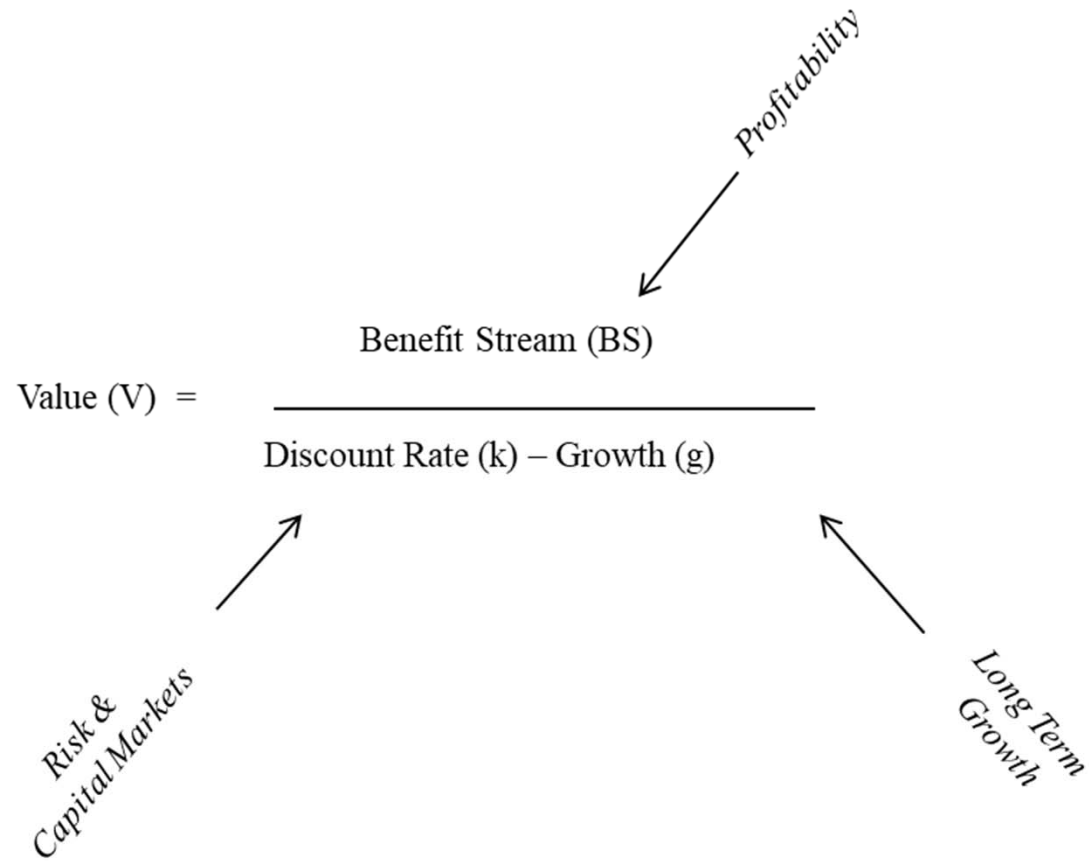
- Basics of the Income Approach
 - Building blocks
 - Forecasted cash flow
 - Discount rate
 - Forecast reflects
 - Revenue growth or decline and timing of that
 - Profitability of periods in the future
 - Capital expenditure expectations
 - Government actions – such as tax rates or cash influx from bailout

Valuation Approaches and Methods

- Basics of the Income Approach
 - Equity discount rate derivation – build-up method
 - Discount rate is layering of different risk elements
 - Risk-free rate (based on U.S. Treasury Bonds)
 - Equity risk premium
 - Adjustment for relative industry risk
 - Adjustment for size (smaller generally more risky)
 - Adjustment for elements specific to the subject company
 - Rate of return on debt – interest rates
 - Weighting of equity and debt in sources of capital

Valuation Approaches and Methods

- Basics of the Income Approach



Valuation Approaches and Methods

- Income Approach – those elements today
 - What is a reasonable forecast?
 - Timing of revenue changes
 - Effect on profit margins
 - One-time government influx of funds
 - Equity discount rate
 - Risk-free rate subject to Federal Reserve actions
 - Lowering this rate, even though perceived risk is greater
 - Equity risk premium, industry risk, and size risk are all long-term measures
 - Specific company risk
 - The current shock to the market and increased perceived risk not captured in any of these
 - Cost of debt??
 - Capital structure
 - As value of equity declines, debt will temporarily be higher portion

Valuation Approaches and Methods

- Income Approach – those elements today
 - Relationship of forecast and discount rate
 - If forecast is more conservative/pessimistic then risk reflected in discount rate can be less
 - If forecast is more aggressive/optimistic then risk reflected in discount rate should be higher
 - However –
 - Different investors – and different analysts – will have different perceptions of future expectations for cash flows and risk
 - Valuations should reflect the view of “hypothetical” owners

Cost of Equity Capital

Cost of Equity Calculation SIC 58: Eating and Drinking Places

	31-Dec-19	26-Mar-20
Spot 20-yr Treasury Yield	2.25%	1.23%
Supply-Side Long-Term ERP	6.17%	6.17%
Industry Risk Premium	-3.15%	-3.15%
Size Premium (10th Decile)	5.22%	5.22%
Cost of Equity*	10.5%	9.5%

*Excluding Company Specific Risk Premium and other considerations

As indicated, the equity risk premium (“ERP”), Industry Risk Premium, and Size Premium are all longer-term measures and are slow to change. And the U.S. Treasury yield is affected by actions of the Federal Reserve and not reflective of current risk perceptions.



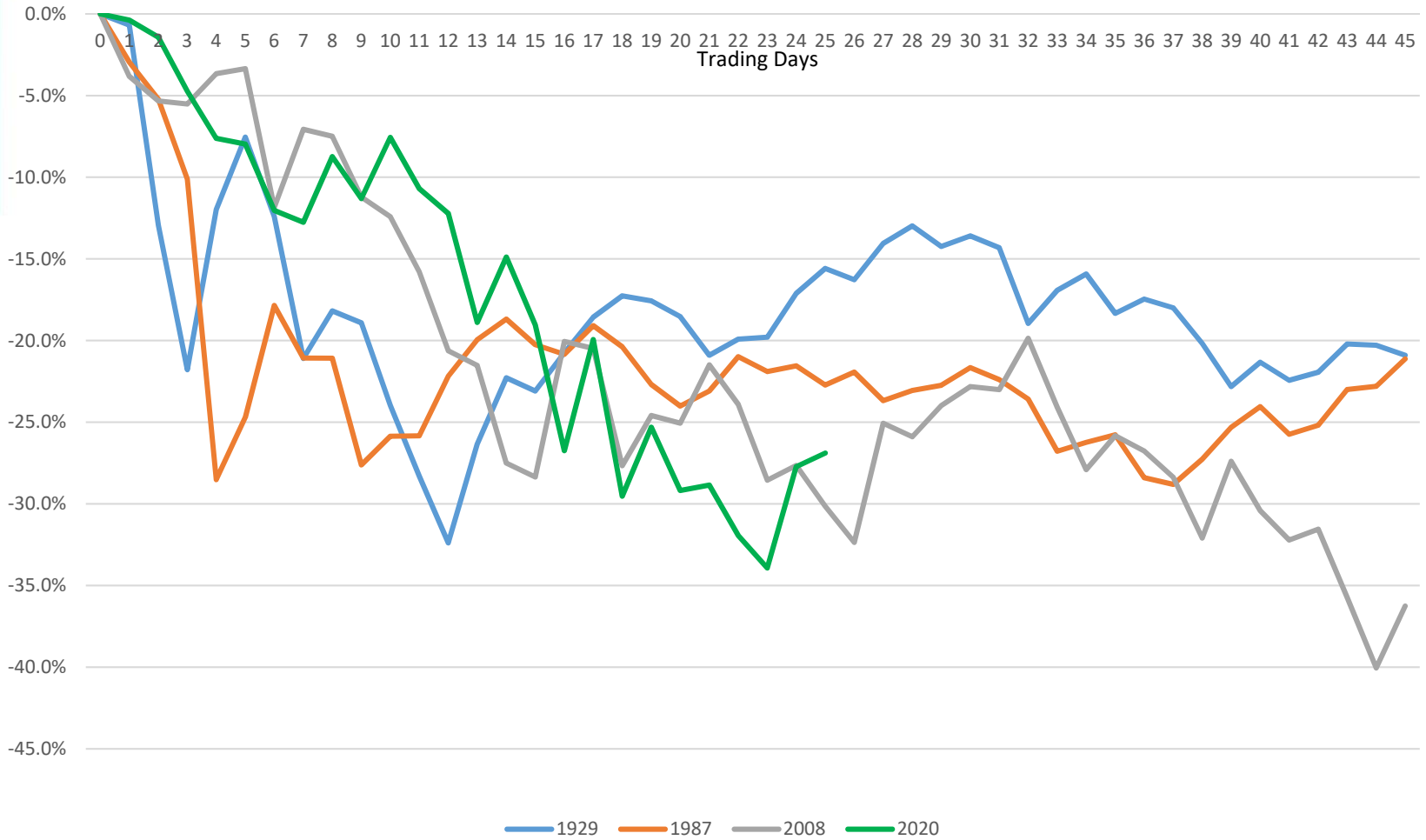
Current Economic and Industry Conditions

S&P 500 Multiples

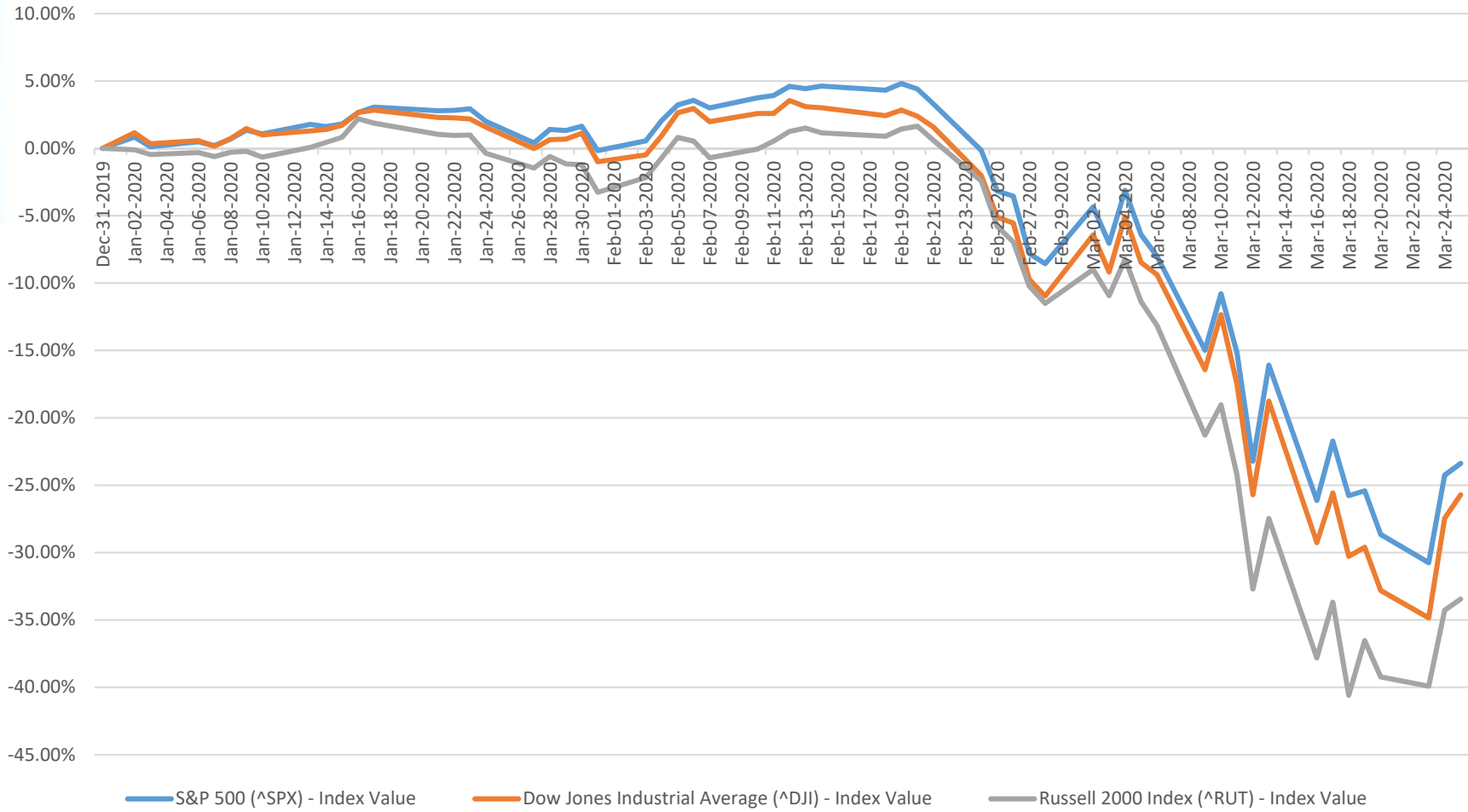
	31-Dec-19	26-Mar-20	% Decline
EV/Revenue	2.7x	2.3x	-16.2%
EV/EBITDA	14.1x	11.8x	-16.0%
EV/EBIT	20.1x	16.8x	-16.3%
P/LTM EPS	24.5x	19.0x	-22.3%
P/BV	3.6x	2.9x	-20.2%

Source: Capital IQ

S&P 500 Total Percentage Decline



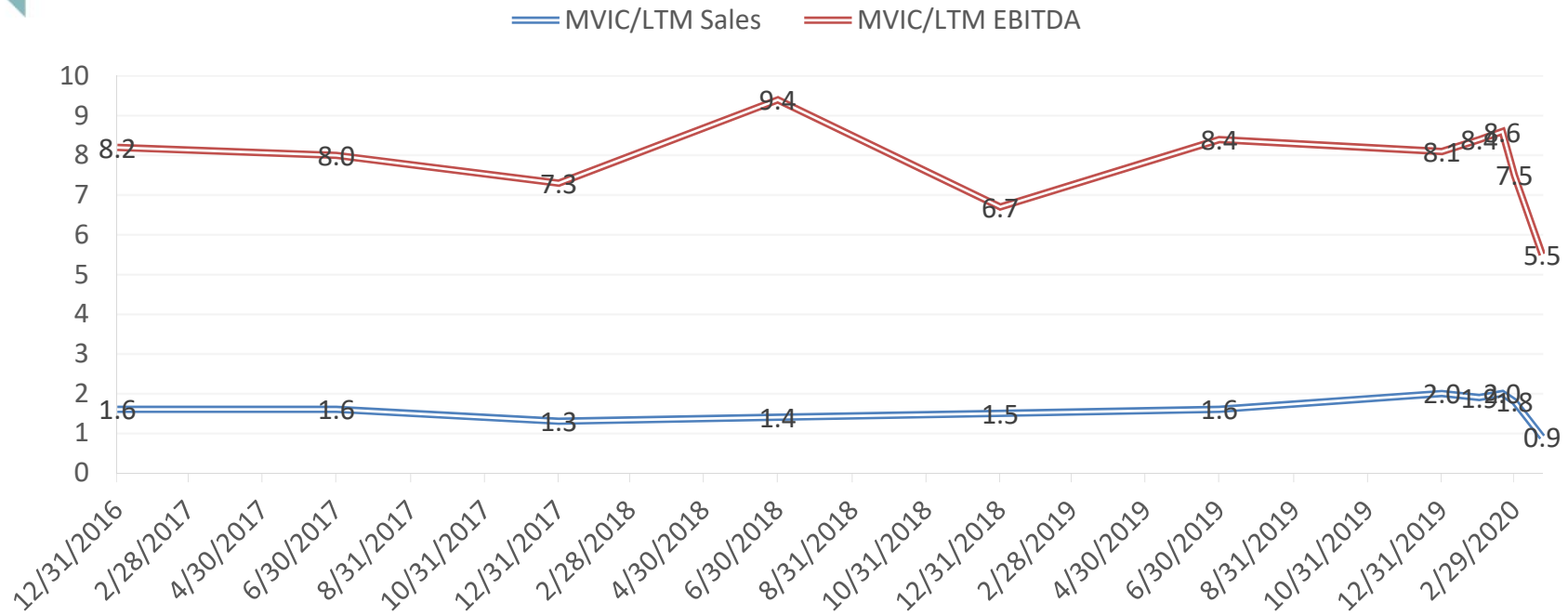
Indices' Value Decline 2020



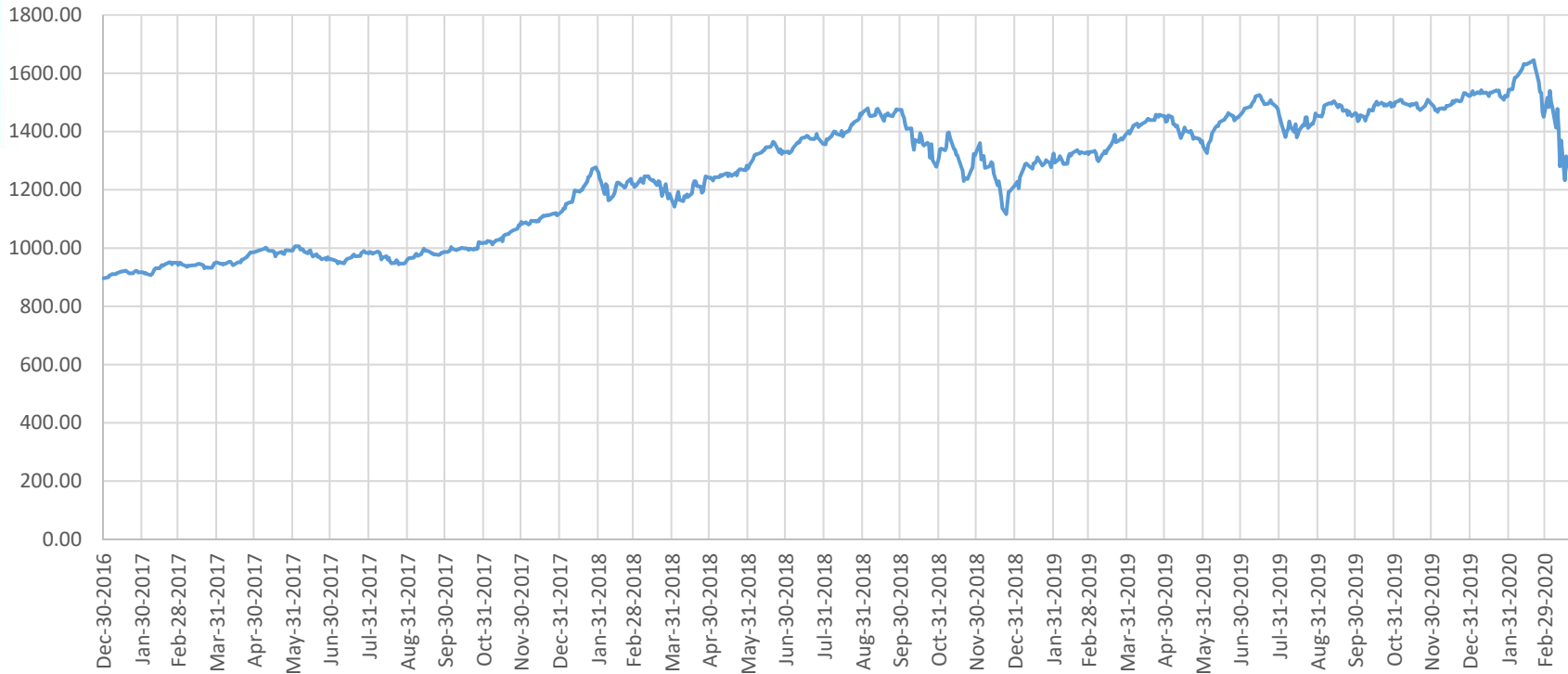
S&P 600 Restaurants (Sub Ind) (^SP600-25301040) - Index Value (11 Constituents) Data through March 23, 2020



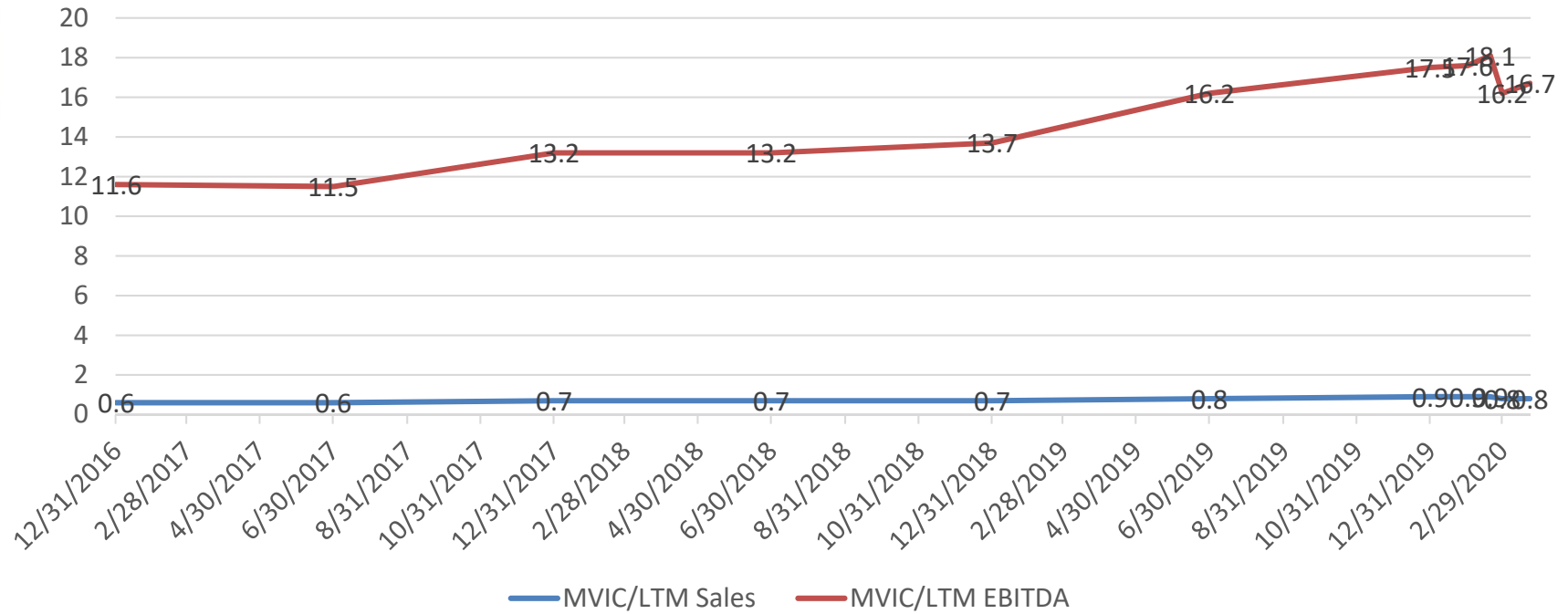
S&P 600 RESTAURANTS MEDIAN REVENUE AND EBITDA MULTIPLES (11 CONSTITUENTS) DATA THROUGH MARCH 23, 2020



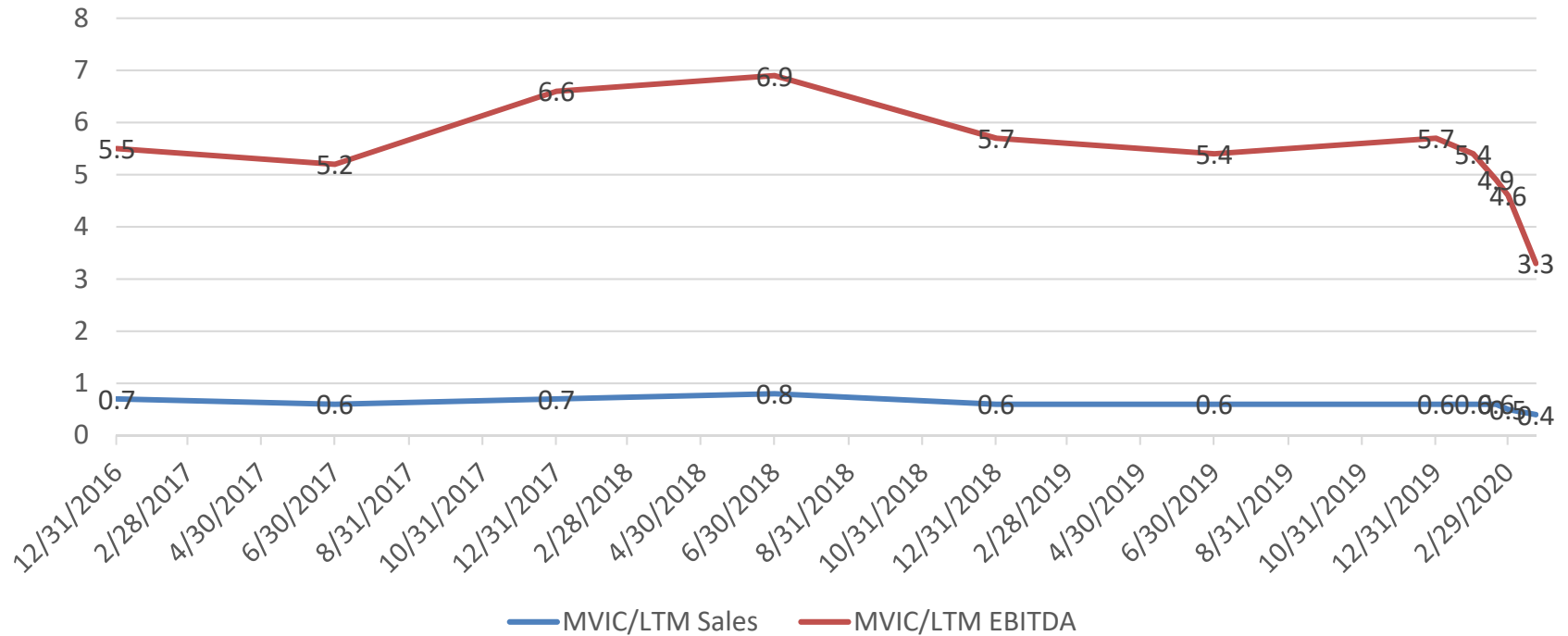
S&P 500 Retail Composite - Index Value (31 Constituents) Data through March 23, 2020



S&P 500 Retail Composite Median Revenue and EBITDA Multiples 4 Best Performers Data through March 23, 2020



S&P 500 Retail Composite Median Revenue and EBITDA Multiples 4 Worst Performers Data through March 23, 2020



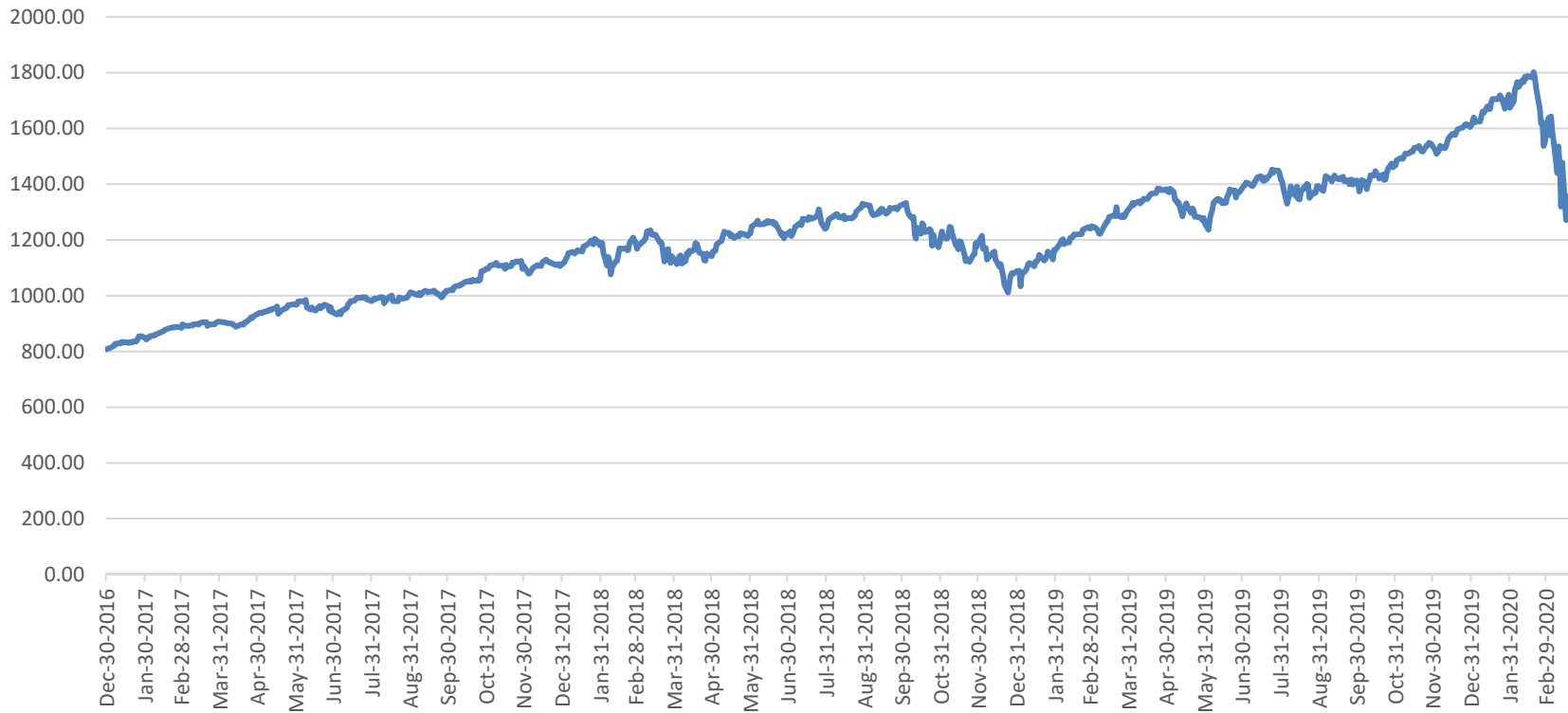
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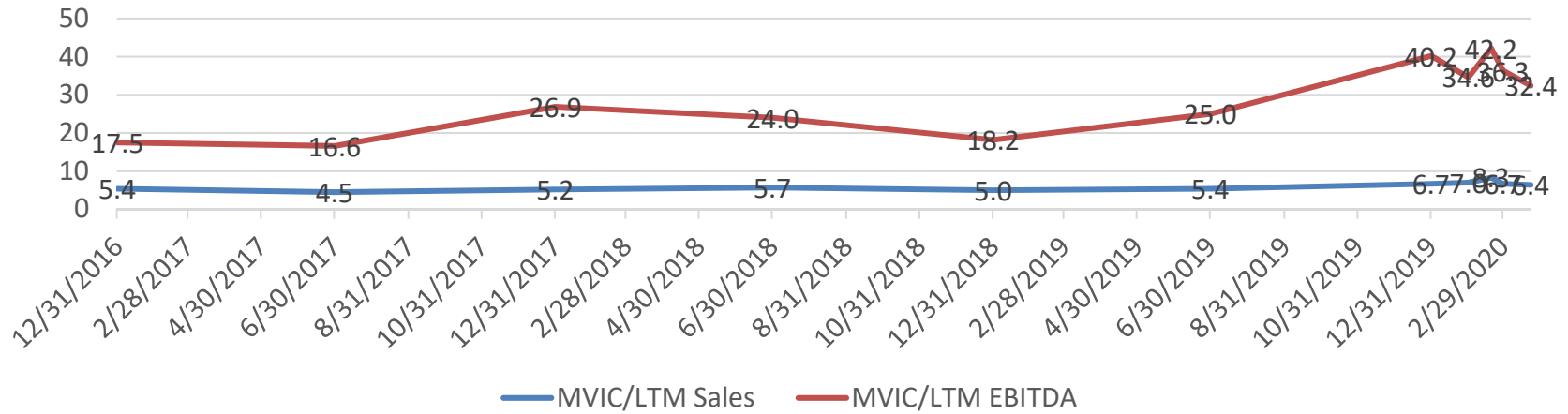
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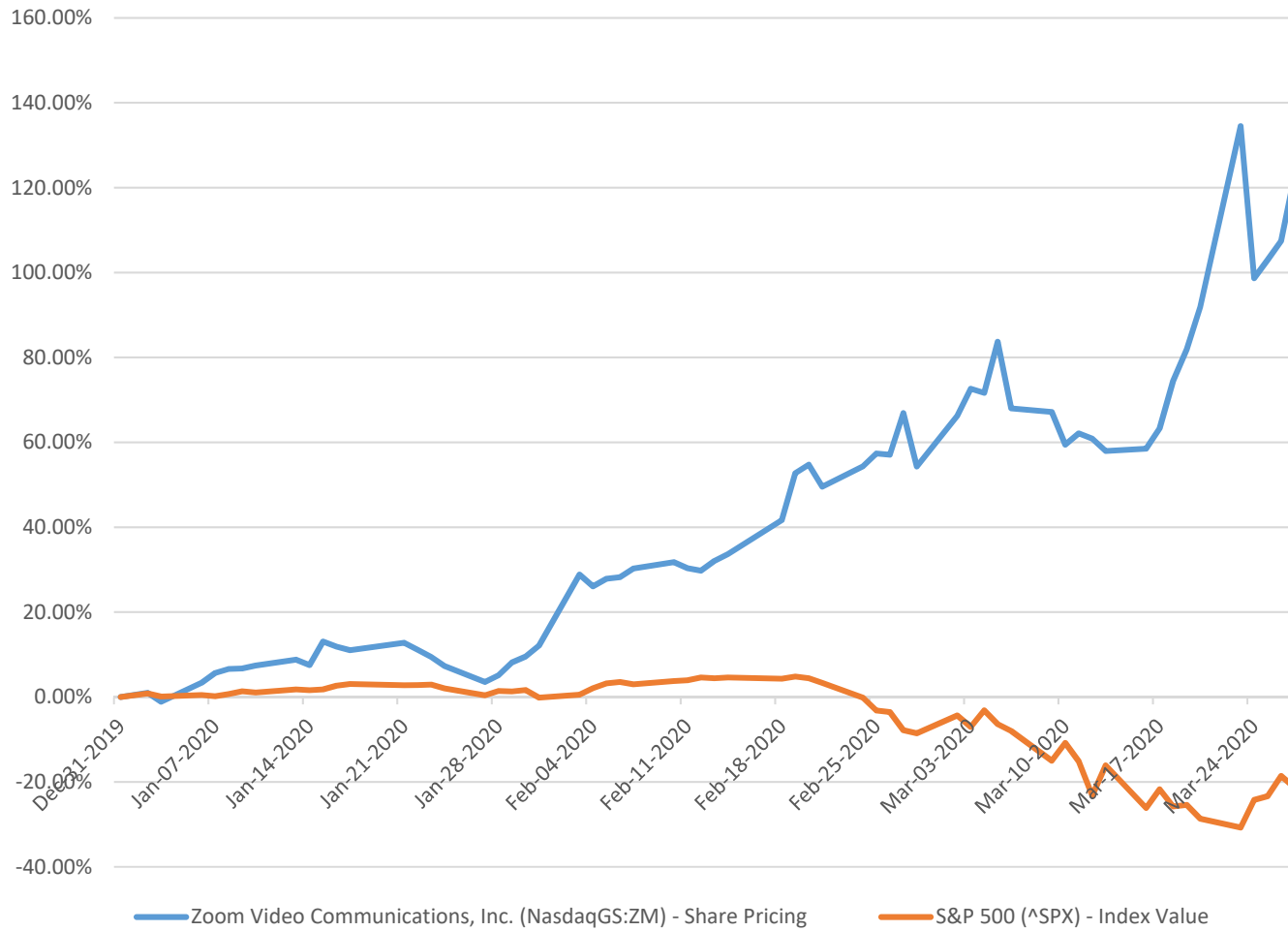
S&P 500 Information Technology (Sector) (^SP500-45) - Index Value (71 Constituents) Data through March 23, 2020



S&P 500 Information Technology Sector Median Revenue and EBITDA Multiples 4 Best Performers Data through March 23, 2020



Zoom vs S&P 500 Total % Change since December 31, 2019





Valuation Multiples

As of March 27, 2020

	Zoom	S&P 500
EV/Revenue	66.7x	2.3x
EV/EBITDA	229.7x	11.8x
P/LTM EPS	1686.0x	19.0x
P/BV	50.7x	2.9x

M&A Activity

M&A Activity in the United States

In the Three Weeks of

Activity	3/1/2019-3/24/2019	3/1/2020-3/24/2020
Transactions Announced	1274	1034
Transactions Closed	1044	786

In One Week of

Activity	3/17/2019-3/24/2019	3/17/2020-3/24/2020
Transactions Announced	369	249
Transactions Closed	239	159

COVID-19

- Created an entirely new work paradigm, and it is essentially new territory for everyone
- Completely uncommon crisis that's not yet fully understood, and by definition much of the outcome is not predictable, which is demonstrated in markets that are inefficient
- Currently there is no cure, and sentiment is varied on how long it will take for normalcy to be restored, or whether normalcy will be redefined over time
- Materiality of economic impact on global economy is just a guess for now

Multiples and Discount Rates

- Forward multiples – are they meaningless?
- Which publics have updated their forecasts with predictability
- With markets behaving in short-term inefficiency, are trailing multiples reliable?
- Government stimulus action has lowered rates – rote application of discount rate buildup underestimates cost of equity
- Even considering government stimulus, businesses are dealing with liquidity crisis of unknown duration, forcing businesses to examine cost structure and make adjustments – e.g. stop rent payments; reduce workforce; extend payables.

Fundamental Value is Created by Cash Flow, Growth and Managing Risk

- Some sectors faring better than others, but no company, and therefore sector, is fully insulated from the pandemic's impact
- The shift in demand has been dramatic, consumers have hunkered down, so all product and service providers are feeling that
- Production is down, because workforce and the way we do business is in a state of flux
- Production opportunities exist for companies that can pivot – e.g. Dyson vacuum manufacturer making ventilators, and tons of others...

Litigation Impacts

- Litigation is expensive, and the court systems are also working through the impacts of Covid-19 to find workable means to administer justice
- Frivolous, riskier lawsuits likely to diminish
- Business interruption is the word of the day – e.g. businesses seeking courts to confirm whether insurance should cover corona-related business loss (see Thomas Keller, famous chef at French Laundry)
- Insurers, unsurprisingly, believe most policies should not cover Covid-19, and the U.S. property and casualty industry surplus of approximately \$1 Trillion would be gutted if you consider continuity losses are estimated at somewhere between \$200 and \$400B PER MONTH!

Intellectual Property

- Underlying economic premise that innovators should be compensated for their research and development efforts through profit
- That may be the case in normally functioning markets
- Under current circumstances, the focus is getting an effective drug developed and deployed to as many people as possible, as quickly as possible
- Biggest patent story of the year is patent filings around use of anti-viral drug Remdesivir, created by Gilead, to treat Covid-19
- World Health Organization petition to create voluntary pool funded by both public and private sector to collect patent rights, regulatory test data and other info that can be shared and used to develop vaccine quicker

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So Is There Anything Positive In All This?



YES!

Potential Planning Opportunities

- Estate/Gift tax planning, wealth transfer
- Equity incentives to key employees
- Valuations with a cut-off date and a moving target
- M&A transactions – both buy and sell opportunities
- Cash flow/Value protection – SBA loans, business interruption insurance, expense measures

Future?

- When we look back, will this be considered a non-recurring event?
- Will the competitive environment be fundamentally changed because of business failures?
- What has been the effect of one-time government stimuli?

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Panel Q&A

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Contact Us

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Partner – Advisory Services

Kenneth J. Pia, Jr. is a partner in the Business Valuation Services group. With more than 25 years of professional business valuation and litigation support experience, Mr. Pia has developed a national reputation working on a wide range of complex valuation engagements. He has performed valuations of businesses and partial business interests for a variety of purposes including, but not limited to, family law matters, employee stock ownership plans, business damages, buy-sell agreements, shareholder litigation, estate and gift tax matters, and buying and selling businesses.

Mr. Pia is heavily involved with the American Society of Appraisers (ASA). He is the chairperson of the ASA's Business Valuation Committee, is a member of the National Business Valuation Education Committee, and teaches nationally for the ASA's accreditation program. Mr. Pia is also a charter member of the American Academy of Matrimonial Lawyers Foundation's Forensic & Business Valuation Division and was recently named to the American Academy for Certified Financial Litigators Advisory Board for New York and Connecticut.

Mr. Pia is a frequent speaker on business valuation topics on the national and local levels for numerous professional organizations, including the American Bar Association, American Institute of Certified Public Accountants, American Academy of Matrimonial Lawyers, and National Center for Employee Ownership. In addition to teaching for the ASA's accreditation program, he previously instructed for the American Institute of Certified Public Accountants' Certificate of Educational Achievement (CEA) program in business valuation. He is also an Adjunct Professor at Quinnipiac University. Mr. Pia has technically reviewed publications on divorce finance and taxation for the American Bar Association, as well as several books on business valuation. In 2007, he was appointed as one of two appraisers to the State of Connecticut's Eminent Domain Task Force, established to determine the methodologies to be used in the calculating lost intangible economic value of businesses due to the state exercising domain rights.

Mr. Pia has been qualified as an expert witness in Federal District Court and the State Courts of Connecticut and New York, as well as various arbitration proceedings. He has also rendered extensive services relating to court testimony. Mr. Pia is on the State of New York Courts' list to receive court appointments in the following counties: New York, Kings, Richmond, Queens, Nassau, Suffolk, and Westchester. He has received court appointments in New York and Connecticut.

Professional & Civic Affiliations

American Institute of Certified Public Accountants (AICPA)
Connecticut Society of Certified Public Accountants (CTCPA) - Valuation, Forensic, and Litigation Support Group, Member; Committee on Liaison with the Bar, Past Chair; Advisory Council, Past Appointee; Federal Income Taxation Committee, Past Member
American Society of Appraisers (ASA)- Business Valuation Discipline Committee, Treasurer; National Business Valuation Education Committee, Member
Connecticut Chapter of American Society of Appraisers - Past President; Past Vice President; Business Valuation Committee, Past Chair
American Academy of Matrimonial Lawyers (AAML) Foundation, Forensic & Business Valuation Division, Charter Member
American Academy for Certified Financial Litigators (AACFL) - Advisory Board for Connecticut and New York, Member
The ESOP Association
National Center for Employee Ownership
Quinnipiac University, Adjunct Professor - Created and teaches the Finance course: Private Company Valuation
National Association of Certified Valuators and Analysts (NACVA) - Advisory Board, Past Member



SUBJECT MATTER EXPERTISE

Business Valuation
Litigation Support
Matrimonial Litigation
Shareholder Disputes
Employee Stock Ownership Plans

EDUCATION

Bachelor of Science, Accounting
Quinnipiac University

William Scally, CFA

Partner – Advisory Services

William Scally is partner-in-charge of Litigation Services in Marcum's Boston, Massachusetts, office. He has more than 16 years of management consulting experience advising clients on a broad range of business issues.

As a valuation specialist, Mr. Scally provides financial, economic, and statistical services to companies, with a focus on equity and debt valuation, business enterprise valuation, business model due diligence, and contract compliance. He has significant experience applying valuation principles to assist companies pursuing strategic initiatives and to analyze economic damages pursuant to government and commercial litigation disputes. Applications include the valuation of closely held businesses, patent infringement, trade secret misappropriation, joint venture disputes, breach of contract, business and asset impairment analyses, and purchase-price disputes. His experience includes engagements across a broad array of industries, including private equity and early-stage ventures, service, software, technology, manufacturing, financial services, life sciences, and healthcare.

Mr. Scally has been qualified as an expert witness and has testified on matters involving business enterprise valuation, trade secret, trademark, patent, partnership, employment, personal injury, and contract disputes. He formerly worked in the Forensic Services Advisory practice of a "Big 4" accounting firm in Boston.

Professional & Civic Affiliations

CFA Institute
Boston Security Analysts Society
Boston Patent Law Association
Boston Bar Association
American Bar Association

Articles and Publications

Litigation Services Handbook: The Role of the Financial Expert,
Sixth Edition, Co-author of Patent Infringement Damages chapter, John Wiley & Sons, Inc., 2017



SUBJECT MATTER EXPERTISE

Intellectual Property
Economic Damages
Commercial Litigation
Business Valuation
Shareholder Disputes

EDUCATION

Master of Business Administration
Boston College
Bachelor of Science, Control Systems
Engineering
United States Naval Academy

ACCREDITATIONS & DESIGNATIONS

Chartered Financial Analyst (CFA)
Charterholder

Daniel R. Roche, CPA, ABV, ASA

Partner – Advisory Services

Daniel Roche is a partner and the National Business Service Line Leader for Marcum, LLP and works out of Marcum's Roseland, New Jersey Office. He appraises business interests and provides litigation support for a wide variety clientele. Mr. Roche's experience includes appraising companies and intangible assets for litigation (family law, commercial litigation, bankruptcy litigation) and non-litigation (estate and gift tax/financial reporting) purposes.

Mr. Roche joined Marcum in 2005 and is a leader in Marcum's National Business Valuation Practice. He is a frequent presenter on business valuation topics both within Marcum and externally at continuing legal education seminars.

Mr. Roche holds the Accredited Senior Appraiser ("ASA") designation from the American Society of Appraisers. He is also a Certified Public Accountant licensed in New Jersey and holds the Accredited in Business Valuation ("ABV") credential from the American Institute of Certified Public Accountants.

Mr. Roche graduated Monmouth University with a Bachelor of Science degree in Business Administration (economics concentration) in 1999, and received his MBA from Rutgers University (finance concentration) in 2009. His education in economics and finance helps Dan provide unique insight in valuation and forensic engagements.

Professional & Civic Affiliations

American Society of Appraisers (ASA), Northern New Jersey Chapter, Vice President
American Institute of Certified Public Accountants (AICPA)
New Jersey Society of Certified Public Accountants (NJSCPA)

Seminars & Presentations

Fair Value, Marcum 2018 Valuation and Litigation Support CPE Conference, New Haven, CT, October 2018
"Business Valuation Terms and Concepts"
"Defined Value Clauses, Risk in Business Appraisals, and the American Taxpayer Relief Act of 2012"
CLE Approved Courses Presented to Law Firms and Bar Associations

Publications

"Valuing Publicity Rights and Other Intangible Assets of Authors", New York Law Journal, May 19, 2014 (with James T. Ashe and Stephen D. Lassar).

"As Intangible Assets Grow in Prominence, Methods to Value Them Evolve", The Metropolitan Corporate Counsel, June 2014 (with Bradford Taylor).



AREAS OF EXPERTISE

Business Valuation
Intangible Asset Valuation
Litigation Support Services
Forensic Investigations

KEY CLIENTS

Law Firms
Corporate Executives
Small Business Owners
High Net Worth Individuals

EDUCATION

Master of Business Administration,
Finance
Rutgers University
Bachelor of Science,
Business Administration
(Economics Concentration)
Monmouth University

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Thank You



Disclaimer

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