



CFA Institute

CFA Institute Research Challenge

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Company Profile

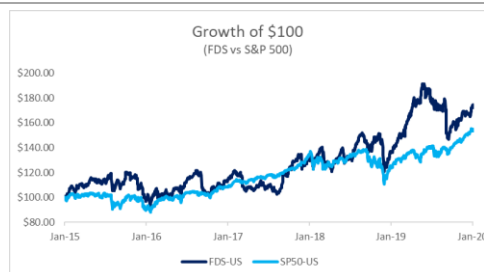
Sector: Financials/Capital Markets

Company Description:

FactSet Research Systems, Inc. provides integrated financial information, analytical applications and industry services for the investment and corporate communities. The company operates its business through the following segments: Research, Analytics & Trading, Wealth, and Content & Technology Solutions. FactSet is headquartered in Norwalk, CT.

FactSet Key Statistics

Current Price	\$276.56
52-Week Range	\$210.31-\$305.38
Price Target	\$253.52
Market Cap	10.8B
Enterprise Value	11.1B
Levered Beta	1.04
Fwd. P/E Multiple	28.52x
Fwd. EV/EBITDA Multiple	20.65x
PEG Ratio	1.94
Dividend Yield	1.02%
FCF Yield	3.51%
FDS 12mo Ret	29.3%
S&P 500 12mo Ret	24.7%



Valuation Summary

Implied Valuation Range	Min Val	25% Val	Median Val	75% Val	Max Val
EV/Sales (2020E)	\$137.39	\$194.84	\$264.95	\$377.46	\$546.26
EV/EBITDA(2020E)	\$217.06	\$235.64	\$236.07	\$280.39	\$356.56
EV/EBIT (2020E)	\$260.97	\$270.69	\$340.08	\$379.05	Outlier*
P/E (2020E)	\$113.07	\$270.25	\$270.34	\$274.24	\$310.31
DCF Analysis (Perpetuity):	\$182.91	\$214.48	\$241.65	\$276.55	\$387.18
DCF Analysis (Exit Multiple):	\$193.26	\$218.60	\$246.01	\$270.61	\$307.66
Median	\$188.08	\$227.12	\$255.48	\$278.47	\$356.56
% to Market	(32.0%)	(17.9%)	(7.6%)	0.7%	28.9%

*Omitted as multiple was 112.7x

Publicly Traded Comps

S&P Global, Inc.	SPGI-US
IHS Markit Ltd.	INFO-US
Evestnet, Inc.	ENV-US
Verisk Analytics, Inc.*	VRSK-US
Nielsen Holdings, Plc.*	NLSN-US

*Found using cointegration analysis. Significant at 95% CI

Investment Thesis

Sell: -8.3% Implied 12 Month Return

We are recommending a SELL rating on FactSet Research Systems, Inc. (FDS) based on stretched valuations, financial institution consolidations, and a potential market drawdown.

- Several valuation methods indicate that FactSet's financials do not align with the current share price. The company's performance over the past 12 months has been significant, outpacing the market and their industry competitors, but this success is unlikely to continue. The company's valuation has reached a point that indicates a plateauing of the share price.
- The rapidly changing industry landscape does not bode well for FactSet moving forward. As the financial services companies continue to consolidate, this will result in reduced employment and diminishing subscriptions for FactSet.
- The economic outlook for 2020 remains uncertain and unpredictable. Major macroeconomic and geopolitical events, such as the 2020 U.S. Presidential election, the ongoing trade war between the two major world economies, and the perplexing interest rate environment in the Eurozone and Japan, all contribute to investor hesitation. Subsequently, as investor uncertainty grows, the demand for FactSet's products and services falls.

Business Description

FactSet Research Systems provides computer-based financial data and analysis for the investment and corporate communities. It consolidates data on global markets, public and private companies, and equity and fixed-income portfolios. The company operates its business through the following segments: Research, Analytics & Trading, Wealth, and Content & Technology Solutionsⁱ.

Business Segments

Research: The Research Solutions segment focuses on company analysis, idea generation, and research management. The tools within Research provide solutions to analyze public and private companies, generate ideas, and discover opportunities with its proprietary data. They also allow users to monitor the global markets, to gain industry and market insights, and to collaborate on and share information across teams.

Analytics and Trading: The Analytics & Trading Solutions segment addresses portfolio analytics, risk management and performance measurement, and attribution. It also focuses on client reporting, portfolio construction, trade execution, and order management.

Wealth: The Wealth Solutions segment is specific to the wealth management industry and creates offerings that enable wealth professionals across an entire enterprise, including home office, advisory, and client engagement.

Content and Technology Solutions: Content & Technology Solutions segment focuses on delivering value to its clients in the way they want to consume it. Its goal is to reduce the number of customizations by standardizing and bundling its proprietary data into data feedsⁱⁱ.

International Presence

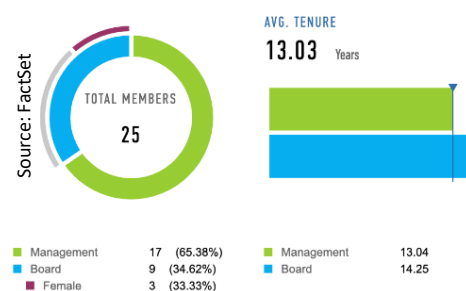
FactSet has 60 offices across 24 countries on six continents. Recent data suggests that the number of professionals employed by the company is 9,074, with an estimated 2,493 employees located in the United States. However, the United States still represents the lion's share of revenue for the company, accounting for 62.3%ⁱⁱⁱ. The United Kingdom claims the second spot with 11.6%, but FactSet has seen this number fall significantly over the past year due to the Brexit debate. As the outcome of Brexit becomes clearer in 2020, the number of losses in London should stabilize.

The Asia-Pacific region remains FactSet's fastest growing market. The new Singapore office enables them to tailor products and services to the needs of local clients, while continuing to support financial firms in Singapore, Malaysia, Indonesia, Vietnam, and the nearby countries.

Corporate Governance

Corporate Structure

Management & Board



FactSet's global headquarters is in Norwalk, Connecticut and has 60 offices across 24 countries around the world. Their management team is diverse with experience and is led by Chief Executive Officer Frederick Phillip Snow. F. Phillip Snow has been with FactSet since 1996 and was named CEO in 2015. FactSet's Chairman of the Board of Directors, Philip A. Hadley, has been with FactSet since 1985 and was named Chairman in 2015 after stepping down from his previous position as the CEO. FactSet's lead executives and board of directors have an average tenure with the company of about 13 years with each having at least 15 years of industry experience.

Women in Power

In 2016, FactSet was recognized by the 2020 Women on Boards organization as a 'W' Winning Company because of their strong presence of women in their business. Women hold an important role in FactSet's business model and hold greater than 20% of their board seats which is the goal of the 2020 Women on Boards organization. FactSet currently has three out of the nine board seats held by women.

Diversity

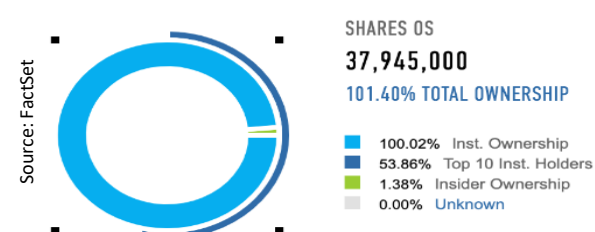
FactSet tries to encourage an inclusive environment for its community and organization through its five employee-led and company-sponsored business groups: Asian BRG, Black BRG, Latinx BRG, Pride BRG, and Women's BRG. These groups were organized in 2019 to help foster a diverse and inclusive workplace for FactSet's employees. Current CEO, F. Philipp Snow has also committed to the CEO Action for Diversity and Inclusion™ pledge. In doing such, the CEO of FactSet recognizes the importance of diversity in the workplace and strives to make it an inclusive environment for everyone.

Environmental Sustainability and Social Responsibility

FactSet puts a strong emphasis on business, but also on the community. This is demonstrated by their employees increased global participation in volunteer work. In 2019, twice as many employees volunteered compared to the previous year in assisting communities across the 16 countries in which their CSR committees operate in. FactSet employees held 475 volunteer events over the past year and logged nearly 16,000 hours for the community^{iv}.

Insider Ownership

Ownership



FactSet is majority-owned by institutional investors as just 1.38% is owned by company insiders and 8.59% is owned by individual stakeholders. Over the previous three years, insiders have been decreasing their stake in the company; insiders have sold about \$123M in shares from 2017 through 2019. So far in 2020, insiders have sold about \$3M^v.

SHORT INTEREST	FLOAT	INST. OWNERSHIP
12.7 DAYS / 9.9% FLOAT	98.6%	101.0 % OF FLOAT

Industry Overview

The Financial Data Service Providers industry provides financial market data and related services, primarily real-time feeds, portfolio analytics, research, pricing and valuation data, to financial institutions, traders and investors. Industry vendors aggregate data and content from stock exchange feeds, broker and dealer desks, and regulatory filings to distribute financial news and business information to the investment community. The companies holding the largest market share in the Financial Data Service Providers industry include Bloomberg LP, Refinitiv, S&P Global Inc., FactSet Research Systems Inc. and Morningstar Inc^{vi}.

An annualized increase in the level of corporate profit, the value of investment in software and computers, and a positive economic outlook have increased demand for products and services from the Financial Data Service Providers industry over the past several years. Overall, recent trends toward the liberalization and globalization of world capital markets have resulted in greater mobility of investor capital, benefiting the financial sector through greater international participation in financial markets, but also intensifying competition, complexity and rapidly increasing the speed of trading. In addition to this, the industry must gauge the demand from finance and insurance professionals, regulation, and investor uncertainty.

Until 2023, the Financial Data Service Providers industry is anticipated to experience stable and continued growth. Over the five years from 2018 to 2023, revenue for the Financial Data Service Providers industry is projected to increase at an annualized rate of 1.9% to \$15.7 billion. A continued increase in the level of corporate profit and demand from investment managers amid continued economic growth will foster an increase in industry revenue. Due to the essential services and products provided to clients, demand is typically relatively inelastic and thus revenue growth over the period is anticipated to come from new clients and upgrades to existing client subscriptions^{vii}.

However, the industry could be considered in the mature stage of its life cycle. The industry's portfolio of services has remained relatively unchanged over the last decade. While several major companies are developing new software interfaces and analytical tools, the core services and products remain unchanged. In addition, the high level of acquisition activity over the period further points toward the maturity of the industry. All major players made acquisitions over the period, with Thomson Reuters completing a reported 22 acquisitions between 2014 and 2017^{viii}. This maturity requires these companies to look elsewhere for growth opportunities.

Competitive Positioning

FactSet attempts to gain a competitive advantage over its competitors through multiple avenues. First is the pricing of the product where FactSet is priced at \$12,000 per year for the full product as compared with \$24,000 with Bloomberg and \$22,000 with Thomson Reuter's Eikon. FactSet has also adapted their product so it can be used on the go from any computer with internet capabilities. Additionally, the FactSet product is much more user friendly than the Bloomberg Terminal which is likely a key factor attributing to FactSet's client retention rate of close to 95%. Despite having these apparent advantages of pricing, accessibility, and mobility over their competitors, FactSet has been unable to grow their market share beyond the high single digits and is nowhere close to the market share of industry leaders Bloomberg (28%) and Thomson Reuters (27%)^{ix}.

Porter's Five Forces

Power of Supplier – Low:

As a technology company with a focus on providing information to its subscribers, FactSet does not rely heavily on suppliers. A significant amount of the information that FactSet provides is available to the public through SEC filings such as 10ks and annual reports. FactSet also has a vast library of data, such as pricing data, that is not freely available to the public. However, FactSet does not acquire all of this data on its own. They do have relationships with companies that provide them with the data. According to FactSet's 10k, "We [FactSet] are not dependent on any one third party data supplier in order to meet the needs of our clients." FactSet has set up a diversified portfolio of suppliers that they rely to make sure that they can meet the demands of their customers, without relying too heavily on a single supplier. This translates into their suppliers not having much power when it comes to pricing.

Power of Customer – Medium:

The vast majority (83.7%) of FactSet's customers are investment managers. These are professionals who are working to choose stocks, bonds, ETFs, mutual funds, and other investment options in order to build portfolios for their clients. Some of the largest investment management firms in the world have trillions of dollars in assets under management and employ thousands of people. This means that a large company threatening to pull their subscription could mean millions of dollars in potential losses for FactSet. However,

these companies are very established and should not have any issue covering the cost of a subscription to FactSet for an employee. Thus, the chances that one of these firms would end their subscription is quite small.

Threat of Substitutes – Low:

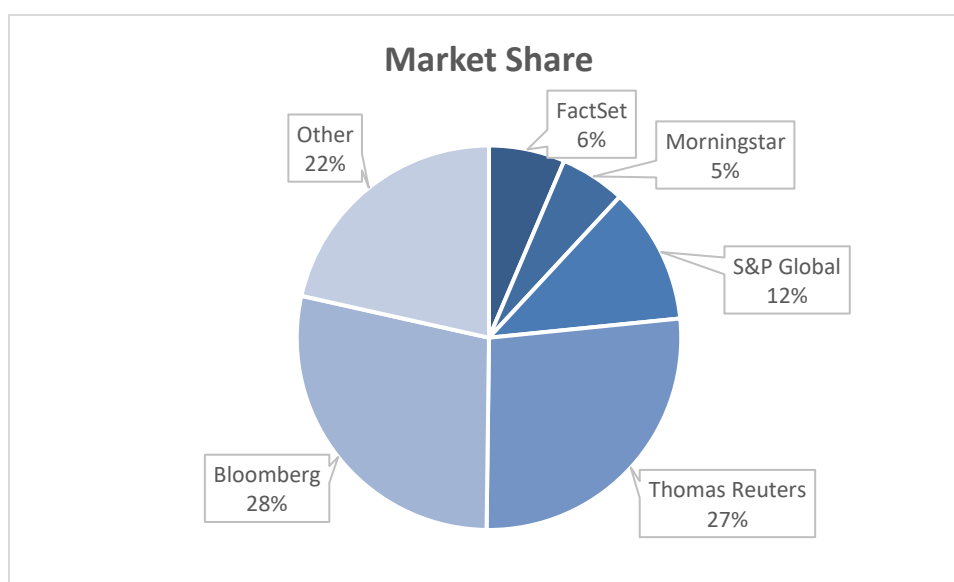
The Financial Information Services market appears to be relatively safe from substitutes. FactSet originated as a paper delivery system and has evolved into a technology company. The need for financial information will always be around but the way it gets delivered will continue to change. The major financial information companies have been able to adjust to the shifts in technology by adding features such as live updates, internet platforms, and real time customer service. FactSet does not have to worry about its customers switching to a substitute platform such as Bloomberg or Morningstar, however the threat that a substitute product will take over the market remains low.

Threat of New Entrants – Low:

Barriers for entry in the financial information industry are high. Companies like FactSet, Bloomberg, & Thompson Reuters dominate the market when it comes to platforms for financial information. These companies have spent millions of dollars on acquisitions and investments to improve their technology and capabilities. There are also free services like Yahoo! Finance and FinViz that provide basic information for students and low-level investors. The market is already very established and unless a company had a groundbreaking platform the threat of new entrants will remain low.

Degree of Competition – High:

Competition in the Financial Information Services is extremely high. There are only a few major players, which include Bloomberg, FactSet, S&P Global, Morningstar, and Thompson Reuters. Bloomberg is currently the market leader controlling around 28% of the market. These companies are all providing publicly available information, so there is intense competition to have the best platform & the most capabilities. One of the critical factors of a platform is how user friendly it is. If customers feel that a platform is becoming too outdated or too hard to use, they can switch to one of the other providers. Bloomberg is currently the most expensive platform at \$24,000 per year^x. The base price for a FactSet subscription is \$12,000 which means a lot of their business comes from people looking for a cheaper alternative. If Bloomberg decided to offer a cheaper version of their product this could be disastrous for FactSet. However, one way that FactSet is differentiating itself is that it has many ways for customers to customize their subscription. The add-ons can make a FactSet subscription just as expensive as Bloomberg.



SWOT Analysis

<p>Strengths:</p> <ul style="list-style-type: none"> • <i>Competitive Pricing Model:</i> FactSet provides its services for a lower price than some of its competitors because the company uses multiple sources to provide its data, which creates pricing competition between suppliers. • <i>Accessibility and Mobility:</i> Unlike some of their chief competitors, FactSet offers accessibility strictly through a web-based platform. This allows for professionals to meet their financial needs at any location if they can connect to the internet. • <i>User Interface:</i> FactSet offers a relatively simple interface and can be easily navigated by even a novice investor. Additionally, it allows for personalization and subscriptions based on your individual needs. These features allow for users to filter out anything they do not have interest in. 	<p>Weaknesses:</p> <ul style="list-style-type: none"> • <i>Limited Use:</i> A deterrent for some is that FactSet requires a physical installation on each machine, and it is only allowed on two machines per subscription. • <i>Equity Research:</i> FactSet does not offer the same robust equity research access as their competitors. Due to Bloomberg's strong market share, they can offer more advanced and in-depth equity research. • <i>Market Fragility:</i> The company is especially susceptible to significant share price depreciation due to the growth they have experienced over the last 12 months. Although the development in the share price should be celebrated, their valuation has been stretched and this only poses danger for the future given negative economic or company news.
<p>Opportunities:</p> <ul style="list-style-type: none"> • <i>Private Investment:</i> Most of the industry's products and services consist of computers and software that deliver financial market data and related services. Consequently, rising private investment in computers and software boosts industry demand and thereby revenue. Private investment in computers and software is expected to increase in 2020, presenting a potential opportunity for the industry. • <i>Private Equity:</i> As investors turn away from public equity and towards more alternative investment vehicles, FactSet can attempt to tap into the private market. This could be an avenue for money managers to gain more access to this opaque market, thus giving them investment opportunities. • <i>International Growth:</i> FactSet recognizes the burgeoning influence of the Asia-Pacific region in the financial world and has focused on tapping into this relatively nascent market. The company already has 13 existing locations in this region and could continue to build up their presence as more opportunities boil to the surface. 	<p>Threats:</p> <ul style="list-style-type: none"> • <i>Potential Economic Downturn:</i> Uncertainty typically rises during an economic downturn due to declining asset values and rising volatility, causing investors to be more risk averse. In general, prolonged periods of investor uncertainty lead to less activity in financial markets. This, in turn, creates less demand for financial data service providers. In 2020, investor uncertainty could increase, posing a potential threat to the industry. • <i>Consolidation:</i> As the financial services industry rapidly consolidates, the demand for FactSet's services could diminish. The number of employees and the amount of FactSet subscriptions would drop. • <i>Shifts in Investment Strategies:</i> FactSet could see weaker demand for their services as the financial community trends away from active investing. Selecting individual stocks is moving out of favor due to the difficulty of beating the market. This too could reduce the number of subscriptions for FactSet.

Valuation

Free Cash Flow Projections															
(\$ in millions)	Historical Period			CAGR	Projection Period										CAGR
	2017	2018	2019		2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	
Sales	\$ 1,127	\$ 1,221	\$ 1,350	6.2%	\$ 1,458	\$ 1,560	\$ 1,685	\$ 1,786	\$ 1,875	\$ 1,969	\$ 2,048	\$ 2,150	\$ 2,236	\$ 2,304	4.7%
% growth	12.0%	8.3%	10.6%		8.0%	7.0%	8.0%	6.0%	5.0%	5.0%	4.0%	5.0%	4.0%	3.0%	
EBITDA	\$ 400	\$ 423	\$ 499	7.6%	\$ 538	\$ 562	\$ 609	\$ 652	\$ 683	\$ 717	\$ 743	\$ 781	\$ 814	\$ 838	4.5%
% margin	35.5%	34.7%	36.9%		36.9%	36.0%	36.1%	36.5%	36.4%	36.4%	36.3%	36.3%	36.4%	36.4%	
D&A	\$ 48	\$ 57	\$ 60	7.8%	\$ 65	\$ 70	\$ 75	\$ 80	\$ 84	\$ 88	\$ 92	\$ 96	\$ 100	\$ 103	4.7%
% sales	4.3%	4.7%	4.5%		4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	
EBIT	\$ 352	\$ 366	\$ 438	7.5%	\$ 473	\$ 492	\$ 533	\$ 572	\$ 599	\$ 628	\$ 651	\$ 685	\$ 713	\$ 734	4.5%
% margin	31.2%	30.0%	32.4%		32.4%	31.5%	31.7%	32.0%	31.9%	31.9%	31.8%	31.9%	31.9%	31.9%	
Interest Expense	8	16	20		21	22	24	26	27	28	29	31	32	33	
Pretax Profit	\$ 344	\$ 350	\$ 418		\$ 452	\$ 470	\$ 509	\$ 546	\$ 571	\$ 600	\$ 622	\$ 654	\$ 681	\$ 701	
Taxes	86	85	69		75	78	84	90	95	99	103	108	113	116	
Net Income	\$ 258	\$ 266	\$ 349	10.6%	\$ 377	\$ 392	\$ 425	\$ 456	\$ 477	\$ 501	\$ 519	\$ 546	\$ 569	\$ 585	4.5%
Basic EPS	\$ 6.23	\$ 6.70	\$ 8.86		\$ 9.64	\$ 10.09	\$ 11.02	\$ 11.89	\$ 12.53	\$ 13.25	\$ 13.83	\$ 14.65	\$ 15.37	\$ 15.93	
EPS Growth	NA	7.5%	32.3%		8.7%	4.7%	9.2%	8.0%	5.4%	5.7%	4.4%	5.9%	4.9%	3.7%	
Other Items:															
Gross Profit	\$ 876	\$ 916	\$ 987		\$ 1,098	\$ 1,175	\$ 1,268	\$ 1,345	\$ 1,412	\$ 1,482	\$ 1,542	\$ 1,619	\$ 1,684	\$ 1,734	
% margin	77.7%	75.0%	73.1%		75.3%	75.3%	75.3%	75.3%	75.3%	75.3%	75.3%	75.3%	75.3%	75.3%	
Cash Flow from Operations	306	323	410	10.2%	442	462	500	536	561	589	611	642	669	688	4.5%
Less: CapEx	(37)	(34)	(59)		(51)	(56)	(66)	(63)	(69)	(72)	(76)	(78)	(82)	(84)	
Free Cash Flow	\$ 269	\$ 289	\$ 350	9.1%	\$ 392	\$ 406	\$ 434	\$ 473	\$ 492	\$ 517	\$ 535	\$ 564	\$ 586	\$ 604	4.4%
Dividends	81	89	100		110	121	133	146	161	169	178	187	196	206	
FCF after Dividends	\$ 188	\$ 200	\$ 250		\$ 282	\$ 285	\$ 301	\$ 326	\$ 331	\$ 347	\$ 357	\$ 378	\$ 391	\$ 398	
WACC	7.7%														
Discount Period					0.5	1.5	2.5	3.5	4.5	5.5	6.5	7.5	8.5	9.5	
Present Value of Free Cash Flow before Dividends					\$ 377	\$ 363	\$ 361	\$ 365	\$ 353	\$ 344	\$ 330	\$ 324	\$ 312	\$ 298	

WACC Calculation	
Capital Structure	
Debt to Total Capital	5.1%
Equity to Total Capital	94.9%
Cost of Debt	
Cost of Debt	3.7%
Tax Rate	16.5%
After Tax Cost of Debt	3.1%
Cost of Equity	
Risk-Free Rate	1.68%
Market Risk Premium	6.00%
Levered Beta	1.04
Cost of Equity	7.9%
WACC	7.7%

We projected out FCF for 10 years using somewhat conservative assumptions largely based on ratios from the past five years, as well as what was discussed on FactSet's earnings call and their MD&A in the 10k. We also used the mid-year convention for our discount periods to show that this FCF occurs throughout that year and help to have a more conservative present value calculation. In calculating our WACC, we used the current U.S. 10-year treasury note yield and a market risk premium of 6%. This is slightly above historical averages of market excess return and we felt it was appropriate to use this level given the current market environment.

DCF Analysis – Perpetuity Growth Method

Enterprise Value		Implied Equity Value and Share Price	
Cumulative Value of FCF	\$ 3,427	Enterprise Value	\$9,967.4
Terminal Value		Less: Total Debt	\$574.8
Terminal Year FCF	\$ 604	Less: Preferred Stock	\$0.0
Perpetuity Growth Rate	3.0%	Less: Minority Interest	\$0.0
WACC	7.7%	Plus: Cash and Cash Equivalents	\$208.6
PV of FCF	\$13,233.4	Implied Equity Value	\$9,601.2
PV of Terminal Value	\$6,540.6	Fully Diluted Shares Outstanding	39
% of Enterprise Value	65.6%	Implied Share Price	\$246.99
Enterprise Value	11.90x	% Upside to Market	(10.7%)

Share Price Sensitivity Analysis						
		Perpetuity Growth Rate				
		2.0%	2.5%	3.0%	3.5%	4.0%
WACC	6.7%	\$260.80	\$283.47	\$312.27	\$350.07	\$401.87
	7.2%	\$236.14	\$253.74	\$275.53	\$303.21	\$339.54
	7.7%	\$216.12	\$230.07	\$246.99	\$267.93	\$294.54
	8.2%	\$199.61	\$210.85	\$224.26	\$240.53	\$260.66
	8.7%	\$185.79	\$194.99	\$205.81	\$218.70	\$234.34

We first performed a DCF using the perpetuity growth method with a PGR of 3%, which is slightly above the current estimates for U.S. GDP. We chose 3% as we believe FactSet's future as a tech company will inherently make the company grow faster than GDP. This valuation technique gave us an implied share price of \$247/share, representing a 10.7% downside to the current price. This also implies a terminal EV/EBITDA multiple of 11.9x.

DCF Analysis – EV/EBITDA Exit Multiple

Enterprise Value		Implied Equity Value and Share Price	
Cumulative Value of FCF	\$ 3,427	Enterprise Value	\$10,002
Terminal Value		Less: Total Debt	\$575
Terminal Year EBITDA	\$ 838	Less: Preferred Stock	\$0
Exit Multiple (10 yr Average)	15.89x	Less: Minority Interest	\$0
Terminal Value	\$13,304	Plus: Cash and Cash Equivalents	\$209
WACC	7.7%	Implied Equity Value	\$9,636
PV of Terminal Value	\$6,576	Fully Diluted Shares Outstanding	39
% of Enterprise Value	65.7%	Implied Share Price	\$247.89
Enterprise Value	11.94x	% Upside to Market	(10.4%)

Share Price Sensitivity Analysis						
		EV/EBITDA Exit Multiple				
		11.89x	13.89x	15.89x	17.89x	19.89x
WACC	6.7%	\$217.02	\$240.29	\$263.56	\$286.83	\$310.10
	7.2%	\$211.01	\$233.27	\$255.53	\$277.79	\$300.05
	7.7%	\$205.29	\$226.59	\$247.89	\$269.19	\$290.48
	8.2%	\$199.85	\$220.23	\$240.61	\$260.99	\$281.37
	8.7%	\$194.66	\$214.16	\$233.67	\$253.18	\$272.68

Our second DCF analysis was generated using the average EV/EBITDA multiple from the past 10 years to forecast FactSet's terminal value. This generated a similar implied share price of \$247.89, a 10.4% downside from the current market price. We are confident in these two analyses as their implied share prices were very similar to one another.

Cointegration Analysis to find Trading Comps

Facset	Ticker	P-Value	Company Name	RBICS Economy	MKT CAP (Millions)
FDS	VSTO	0.00088	Vista Outdoor Inc	Industrials	\$ 416.93
FDS	DAKT	0.00329	Daktronics, Inc.	Technology	\$ 275.40
FDS	RLGY	0.00607	Realogy Holdings Corp.	Finance	\$ 1,174.28
FDS	WABC	0.00677	Westamerica Bancorporation	Finance	\$ 1,790.69
FDS	MATW	0.00862	Matthews International Corporation Class A	Business Services	\$ 1,189.35
FDS	GT	0.00984	Goodyear Tire & Rubber Company	Consumer Cyclical	\$ 3,302.41
FDS	IIPR	0.01039	Innovative Industrial Properties Inc	Finance	\$ 1,088.15
FDS	WING	0.01116	Wingstop, Inc.	Consumer Services	\$ 2,733.83
FDS	WM	0.01307	Waste Management, Inc.	Business Services	\$ 51,333.16
FDS	AADI	0.01356	Applied Optoelectronics, Inc.	Technology	\$ 280.88
FDS	ROP	0.01462	Roper Technologies, Inc.	Technology	\$ 39,213.21
FDS	GME	0.01847	GameStop Corp. Class A	Consumer Cyclical	\$ 284.78
FDS	DFIN	0.01958	Donnelley Financial Solutions, Inc.	Technology	\$ 324.82
FDS	PBI	0.02666	Pitney Bowes Inc.	Technology	\$ 654.35
FDS	TUP	0.02685	Tupperware Brands Corporation	Consumer Non-Cyclical	\$ 379.95
FDS	STRA	0.02829	Strategic Education, Inc.	Consumer Non-Cyclical	\$ 3,544.41
FDS	MNRO	0.02930	Monro Inc	Consumer Cyclical	\$ 2,372.63
FDS	WPG	0.03021	Washington Prime Group Inc.	Finance	\$ 626.98
FDS	VZ	0.03608	Verizon Communications Inc.	Telecommunications	\$ 249,305.10
FDS	PEG	0.03719	Public Service Enterprise Group Inc	Utilities	\$ 31,183.07
FDS	LII	0.03816	Lennox International Inc.	Industrials	\$ 9,285.06
FDS	PAYX	0.03892	Paychex, Inc.	Business Services	\$ 31,864.10
FDS	VRSK	0.04023	Verisk Analytics Inc	Business Services	\$ 27,087.71
FDS	WBA	0.04191	Walgreens Boots Alliance Inc	Consumer Non-Cyclical	\$ 46,100.26
FDS	NLSN	0.04260	Nielsen Holdings Plc	Business Services	\$ 7,528.94
FDS	NOW	0.04285	ServiceNow, Inc.	Technology	\$ 58,350.96
FDS	BNED	0.04431	Barnes & Noble Education, Inc.	Consumer Cyclical	\$ 178.22
FDS	FLO	0.04769	Flowers Foods, Inc.	Consumer Non-Cyclical	\$ 4,581.39
FDS	GEF	0.04778	Greif Class A	Non-Energy Materials	\$ 2,263.43
FDS	ATR	0.04920	Aptargroup, Inc.	Non-Energy Materials	\$ 7,487.13
FDS	SLG	0.04992	SL Green Realty Corp.	Finance	\$ 7,791.90

The primary difficulty with a competitor analysis for FactSet is that their primary competitor, being Bloomberg, and largest player in their industry, is private. This provides a certain degree of difficulty when trying to assess where their stock price will move in relation to similar companies. In order to fill the gaps in a list of publicly traded competitors, we tested for the cointegration between FactSet and other small, mid, and large cap S&P companies. Cointegration is defined as a situation where linear combinations of non-stationary time series are stationary^{xi}. This implies the existence of a long-run equilibrium between the variables. In this case, the variables are the price of FDS and another stock. While correlation measures the degree to which the returns of two stocks move in a similar pattern over time, cointegration measures the degree to which the ratio of two stocks' prices mean revert toward a steady level. Of the 1,500 companies tested for cointegration with FactSet over the three-year time period 01/01/2017-01/01/2020, 33 were observed to be highly cointegrated with FactSet with a confidence level of 95% or higher (0.05 p-value or lower). Of those 33, we picked

two to add to our competitor analysis that operate in the Business Services industry. While these companies may not be viewed as direct competitors to FactSet, a high cointegration suggests that there are certain factors in the economy that heavily influence both companies making their inclusion in our Competitor Analysis relevant.

Comparable Company Analysis

Comparable Company Analysis - Key Valuation Metrics														
Company	Ticker	Current Share Price	% of 52-wk. High	Equity Value	Enterprise Value	Enterprise Value/				Price/		FCF Yield		
						2020E Sales	2021E Sales	2020E EBITDA	2021E EBITDA	2020E EBIT	2021E EBIT		2020E EPS	2021E EPS
Tier I: Industry Comps														
FactSet Research Systems Inc.	FDS-US	\$ 276.56	91%	\$ 10,751	\$ 10,766	7.38x	6.90x	20.00x	19.16x	22.76x	21.88x	28.52x	27.40x	3.51%
Envestnet, Inc.	ENV-US	72.41	96%	3,800	4,467	4.20	3.70	18.50	15.90	112.70	55.40	27.87	24.03	4.11%
IHS Markit Ltd.	INFO-US	79.89	98%	31,393	34,757	7.60	7.18	18.47	17.08	32.80	29.14	27.88	24.88	3.76%
S&P Global, Inc.	SPGI-US	294.83	98%	72,056	53,622	10.60	10.00	21.70	20.20	23.10	21.50	28.28	25.66	3.46%
Verisk Analytics Inc*	VRSK-US	165.30	100%	27,088	6,920	5.73	5.46	17.13	16.31	23.90	22.76	32.00	30.48	5.05%
Nielsen Holdings Plc*	NLSN-US	21.16	77%	7,529	25,634	15.10	13.80	27.20	24.60	29.60	26.50	11.66	10.62	9.20%
Min				\$ 3,800	\$ 4,467	4.20x	3.70x	17.13x	15.90x	23.10x	21.50x	11.66x	10.62x	3.46%
25th Percentile				\$ 5,664	\$ 5,694	4.97x	4.58x	17.80x	16.11x	23.50x	22.13x	19.76x	17.32x	3.61%
Median				\$ 27,088	\$ 25,634	7.60x	7.18x	18.50x	17.08x	29.60x	26.50x	27.88x	24.88x	4.11%
75th Percentile				\$ 51,725	\$ 44,190	12.85x	11.90x	24.45x	22.40x	72.75x	42.27x	30.14x	28.07x	7.12%
Max				\$ 72,056	\$ 53,622	15.10x	13.80x	27.20x	24.60x	112.70x	55.40x	32.00x	30.48x	9.20%

* Found using cointegration analysis; Significant at 95% Confidence Interval

Here, we performed a number of multiple analyses based on FactSet's named comparables, as well as those we found using a cointegration analysis as discussed above. This analysis was then blended into one table, the median value showed a 2.6% downside to its current price. We believe that FactSet's stock is likely to reach its 25th percentile price, just below our base case return and reaching a 9% downside from its current price of \$276.56.

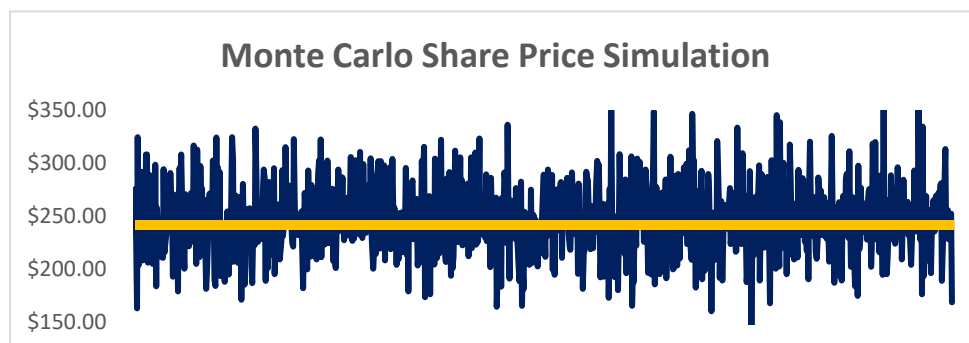
Methodology Name	Range of Valuation Multiples / Premiums					Applicable 2020 FactSet Research Systems Inc. Figure	Implied Share Price Range							
	25th		75th				25th		75th					
	Minimum Multiple	Percentile Multiple	Median Multiple	Percentile Multiple	Maximum Multiple		Minimum Value	Percentile Value	Median Value	Percentile Value	Maximum Value			
Public Company Comparables:														
EV/Sales (2020E)	4.20x	5.73x	7.60x	10.60x	15.10x	\$1,458.2	\$137.39	\$194.84	\$264.95	\$377.46	\$546.26			
EV/Sales (2021E)	3.70x	5.46x	7.18x	10.00x	13.80x	\$1,560.2	\$128.35	\$198.94	\$268.22	\$381.21	\$533.73			
EV/EBITDA (2020E)	17.13x	18.47x	18.50x	21.70x	27.20x	\$538.4	\$217.06	\$235.64	\$236.07	\$280.39	\$356.56			
EV/EBITDA (2021E)	15.90x	16.31x	17.08x	20.20x	24.60x	\$561.9	\$209.67	\$215.62	\$226.72	\$271.82	\$335.42			
EV/EBIT (2020E)	23.10x	23.90x	29.60x	32.80x	Outlier*	\$473.1	\$260.97	\$270.69	\$340.08	\$379.05	Outlier*			
EV/EBIT (2021E)	21.50x	22.76x	26.50x	29.14x	55.40x	\$492.0	\$251.97	\$267.93	\$315.25	\$348.65	\$681.03			
P/E (2020E)	11.66x	27.87x	27.88x	28.28x	32.00x	\$9.70	\$113.07	\$270.25	\$270.34	\$274.24	\$310.31			
P/E (2021E)	10.62x	24.03x	24.88x	25.66x	30.48x	\$11.38	\$120.82	\$273.39	\$283.10	\$291.92	\$346.73			
Outlier* Omitted as multiple was 112.7x						Median % Upside/Downside	(37.3%)	(9.0%)	(2.6%)	15.8%	28.9%			

Monte Carlo Analysis

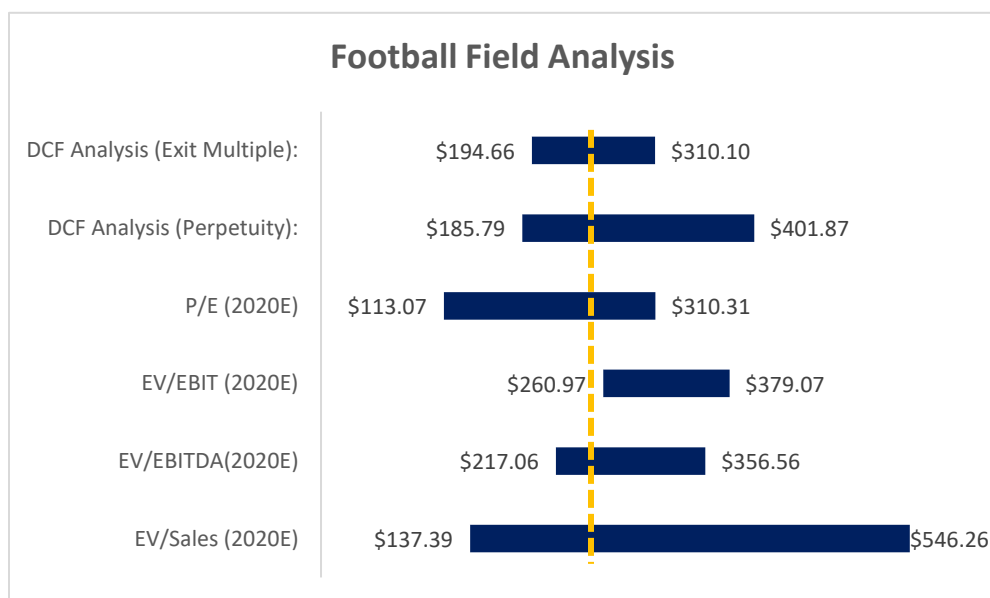
Understanding that our FCF Projections are extremely sensitive to our base-case assumptions, three key factors within the valuation model were chosen as drivers of a Monte Carlo simulation; the drivers were the EBITDA Exit Multiple, the EBITDA Margin, and the WACC. Using a Monte Carlo simulation, 1000 iterations affected each of the previously mentioned variables were simulated in order to derive the price of FactSet's stock given changes in these three underlying variables. These factors largely contribute to the valuation in both the Perpetuity Growth Method and EV/EBITDA Multiple in the DCF approaches. Below are the results from our simulations:

Descriptive Statistics	
Min Value	\$145.48
25th Percentile	\$225.75
Median	\$246.12
75th Percentile	\$268.41
Max Value	\$368.40
99% Confidence Interval	
Left Tail	\$169.42
-38.7% to mkt	
Right Tail	\$325.38
17.7% to mkt	

*Mean Price: \$247.40; Stdev of Price: \$33.52



Valuation Summary



From the six valuation techniques we analyzed, to the left we can see the expected ranges for FactSet's stock over the next year. We believe that valuations have stretched over the past two years, exceeding its median EV/EBITDA multiple by 5x in 2018/2019. We estimate FDS will mean revert due to a broad market downturn, a missed earnings report, or an increase in financial institution consolidations over the next year. If any combination of the three occur over the next 12 months, our base case price of \$253.52 has a strong likelihood of occurring. This price of \$253.52 was calculated by taking the average price of the six valuation methods we used to approximate the fair value of FactSet's stock.

Financial Analysis

Financial Analysis	2015	2016	2017	2018	2019
Organic ASV Growth	9.2%	8.8%	14.5%	5.8%	5.0%
Profitability					
Gross Profit Margin	59.7%	57.0%	71.7%	67.9%	68.7%
Operating Profit Margin	33.3%	31.9%	30.6%	28.2%	30.6%
Net Profit Margin	23.9%	30.1%	21.2%	19.8%	24.6%
Capital Efficiency					
Return on Equity	46.2%	64.6%	48.0%	49.2%	58.8%
Return on Assets	34.4%	38.6%	21.2%	18.9%	23.2%
Return on Inv. Capital	44.7%	49.0%	26.5%	23.9%	23.9%
Solvency & Liquidity					
Current Ratio	2.18x	2.33x	2.04x	1.95x	2.67x
Cash Ratio	1.30x	1.60x	1.13x	1.08x	1.76x
Net Debt/EBITDA	-0.40x	0.12x	0.83x	0.77x	0.38x
EBIT Interest Coverage	3,354.77x	131.59x	45.50x	23.93x	22.12x

Source: FactSet; Bloomberg; 10k

Comparable Company Analysis - Return Ratios and Credit Metrics								
Company	Ticker	Return on Investment			Div Yield	Leverage Ratios		EBIT Interest Coverage
		ROIC (%)	ROE (%)	ROA (%)		Debt/Total Cap (%)	Debt/EBITDA (x)	
Tier 1: Industry Comps								
FactSet Research Systems Inc.	FDS-US	23.90%	58.79%	23.17%	1.02%	5.08%	1.07x	22.12x
Envestnet, Inc.	ENV-US	0.72%	-2.69%	-1.30%	0.00%	42.08%	7.52x	0.69x
IHS Markit Ltd.	INFO-US	4.42%	6.12%	3.13%	0.00%	41.45%	3.29x	3.80x
S&P Global, Inc.	SPGI-US	47.93%	429.77%	21.31%	0.77%	85.36%	1.34x	21.04x
Verisk Analytics Inc*	VRSK-US	14.37%	22.44%	7.61%	0.60%	56.81%	2.55x	6.44x
Nielsen Holdings Plc*	NLSN-US	-6.00%	-50.30%	-8.52%	5.25%	74.66%	5.19x	2.69x
Min		-6.00%	-50.30%	-8.52%	0.00%	41.45%	1.34x	0.69x
25th Percentile		-2.64%	-26.50%	-4.91%	0.00%	41.77%	1.94x	1.69x
Median		4.42%	6.12%	3.13%	0.60%	56.81%	3.29x	3.80x
75th Percentile		31.15%	226.11%	14.46%	3.01%	80.01%	6.35x	13.74x
Max		47.93%	429.77%	21.31%	5.25%	85.36%	7.52x	21.04x

* Found using cointegration analysis; Significant at 95% Confidence Interval

relative to their comps, we believe that the stock has run up, stretching its multiple. We estimate that FactSet's multiple will mean revert over the next 12 months as the market faces more volatility after an exceptional 2019.

Investment Risks

Risk of Overall Equity Expansion

As we witnessed in 2019, equity prices rose close to or surpassing all-time highs on the back of positive economic reports and three rate cuts by the Federal Reserve. Currently the Fed's target interest rate stands in the 1.75%-2% range and they have given no indication that they expect to raise rates in 2020. However, if the economic condition of the United States were to slow prompting the Federal Reserve to begin another series of rate cuts, equity valuations across the board could continue to rise. Despite our SELL rating on FactSet Systems, an overall economic expansion would cause the stock price to rise

Risk of Closing a Large Cap Deal

In early August of 2018, FactSet closed on a deal with Merrill Lynch Wealth Management to deploy its market data solution software to more than 15,000 wealth management professionals companywide. Being one of the largest wealth managers in the world, the news of this deal positively affected the stock price resulting in a 10% rise in the following month. If FactSet were to close another deal of this magnitude with a large wealth manager with a global presence, the company's stock price would likely go up. However, these deals with large market value companies come around so infrequently and often involve a lengthy closing process. While there is a small likelihood of Factset closing on a deal of this size in the coming year, the possibility is always there.

FactSet and Barclays have partnered up to create new tool for navigating the bond market: FactSet has teamed up with the bank to create a tool called the Liquidity Cost Scores. The tool is a way to analyze price movements in bonds. Computer programs will

analyze massive amounts of data in order to provide bonds with a score. This tool could benefit FactSet by capturing more clients who are involved in bond trading.

Risk of Technological Advancement

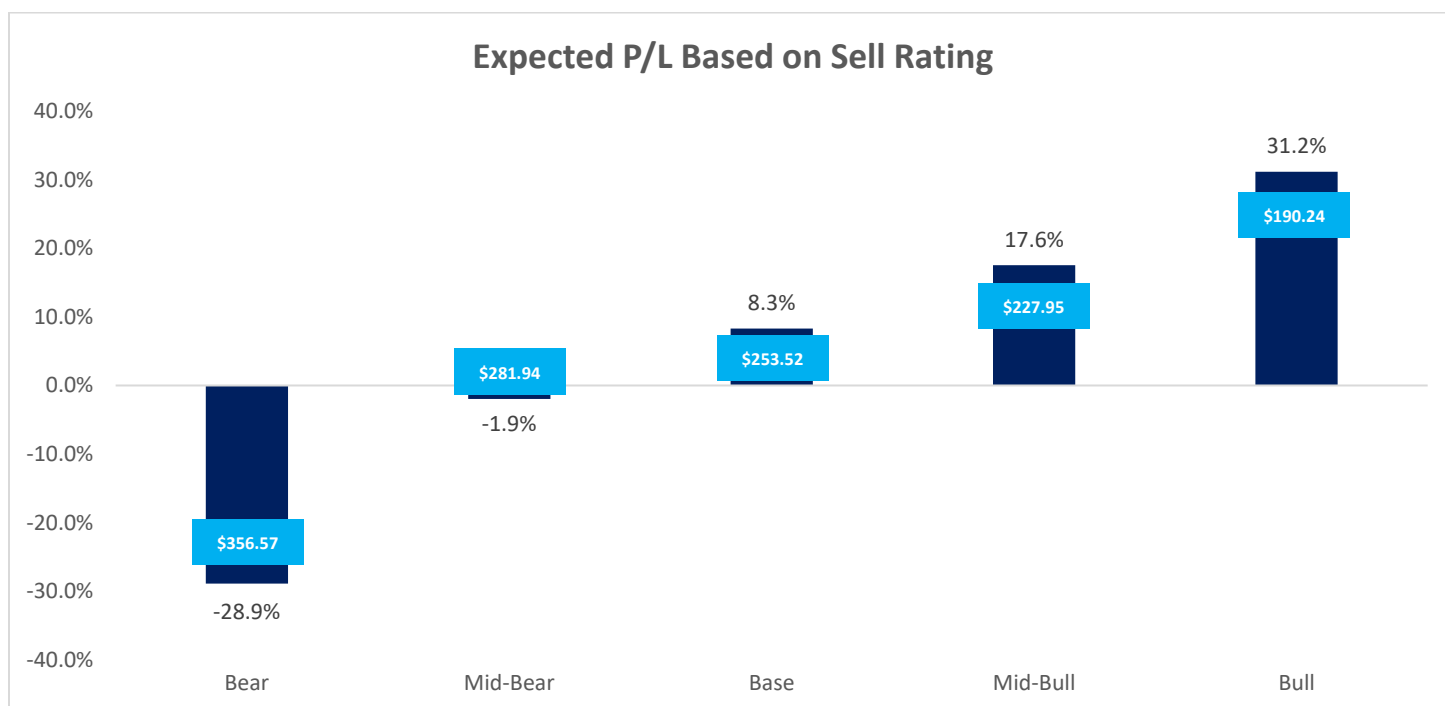
Part of FactSet's growth and continued competitiveness with other similar products is their ability to develop new products to adapt to the ever-changing needs of the investment industry. If FactSet is able to stay ahead of competitors when it comes to developing these new products, this would result in an increased competitive advantage over their peers. While it is impossible to know exactly how the industry will change over the coming years, FactSet is continually investing money into the creation of these new products. If a technological breakthrough were to occur that renders the services of their competitors obsolete, FactSet would gain more clients and increase market share.

Shift from Active to Passive Investing

The FactSet platform is geared primarily towards active investing, where money managers perform extensive research attempting to outperform their benchmarks. In recent years, there has been a noticeable outflow in the amount of money actively managed towards passive instruments that attempt to track indexes rather than outperform them. This shift towards passive investing can be seen as a negative sign for FactSet. However, if the market were to experience a prolonged downturn or even recession, there may be a slight reversal in this money flow as active management tends to outperform passive during an economic downturn. While we see the risk of recession in 2020 to be very low, this is still an ever-present risk.

Conclusion

We recommend a **SELL** rating on FactSet Research Systems (FDS) due to near-term market headwinds, a potential for a missed earnings report due to shifts from active to passive resulting in less data/real-time information being necessary, and financial institution consolidations over the next 12 months. With FDS valuation multiples already being stretched nearly 5x higher than their 10-year averages, we believe any slip-ups over the next 12 months will send the price lower and there is a high probability that our base case price target of \$253.52 can be reached, and exceeded on the downside.



Appendix 1: Python Cointegration Loop

```

#import modules
#pip install yfinance
import pandas as pd
import numpy as np
from pandas import ExcelWriter
from pandas import ExcelFile
from datetime import datetime
import datetime as dt
#import time as t
import matplotlib.pyplot as plt
from matplotlib.dates import MonthLocator,DateFormatter
import numpy as np
import statsmodels.api as api
import statsmodels as sm
import yfinance as web
from pandas.plotting import register_matplotlib_converters
register_matplotlib_converters()
from statsmodels.tsa.stattools import coint
#Set Beginning Date and Ending date for Data
begdate='2017-01-01'
enddate='2020-01-01'
#extract tickers from excel sheet
TechList=pd.read_excel('C:/temp/All_S&P.xlsx',sheet_name='Company Overview')
r2num=len(TechList)
techtickers=TechList.filter(['Ticker'])
firstticker=techtickers.iat[0,0]
#download price data of tickers
newdata=web.download(firstticker,start=begdate,end=enddate)
data=newdata.filter(['Close'])
Techdata=data.rename(columns={"Close":firstticker})
cutoff=len(data)
good_tickers=[firstticker]
#find good tickers from the list of tech stocks
for i in range(1,len(TechList)):
    ticker=techtickers.iat[i,0]
    print(ticker)
    moredata=web.download(ticker,start=begdate,end=enddate)
    moredata2=moredata.filter(['Close'])
    moredata2=moredata2.rename(columns={"Close":firstticker})
    thislength=len(moredata2)
    numMissing=moredata2.isna().sum()
    if thislength >=cutoff:
        if numMissing[0] <=0:
            good_tickers.append(ticker)
            Techdata[ticker]=moredata2
Techdata.to_pickle('C:/temp/All_S&P_pricelist.pkl')
#Techdata.to_excel('C:/temp/R2K_Prices.xlsx')
x=pd.read_pickle('C:/temp/All_S&P_pricelist.pkl')
x.isna().sum().sum()
numstock=len(good_tickers)
forCoint=x[0:250]
first=good_tickers[0]
cointegrations=pd.DataFrame(columns=['Ticker_A','Ticker_B','pvalue'])
tickerA = x[good_tickers[0]]
for j in range(1,numstock):
    print(j)
    if x[good_tickers[j]].isna().sum()== 0:
        tickerB = x[good_tickers[j]]
        score,pvalue,_ =coint(tickerA,tickerB)
        cointegrations = cointegrations.append({'Ticker_A':good_tickers[0],'Ticker_B':good_tickers[j],'pvalue':pvalue}, ignore_index=True)
        cointegrations.interpolate()
cointegrations.sort_values(by='pvalue')
cointegrations.to_excel('C:/temp/All_S&P_coint.xlsx')
#cointegrations.to_pickle('C:/temp/R2K_cointegrations.pkl')

```

Appendix 2: 5-Year Historical Balance Sheet

FactSet Research Systems Inc.					
FDS 303075105 2329770 NYSE Common stock					
Source: FactSet Fundamentals					
	AUG '15	AUG '16	AUG '17	AUG '18	AUG '19
Assets					
Cash & Short-Term Investments	182.41	252.62	227.18	237.88	385.61
Short-Term Receivables	95.06	97.80	148.33	156.64	146.31
Other Current Assets	26.70	18.86	33.87	36.40	51.89
Total Current Assets	304.17	369.28	409.38	430.92	583.81
Net Property, Plant & Equipment	59.26	84.62	100.45	100.55	132.52
Intangible Assets	348.34	546.08	881.10	850.77	806.28
Deferred Tax Assets	20.60	13.41	7.41	9.72	7.57
Other Assets	4.30	5.78	14.97	27.50	29.94
Total Assets	736.67	1019.16	1413.32	1419.45	1560.13
Liabilities & Shareholders' Equity					
Accounts Payable	33.88	45.84	59.21	72.06	79.62
Income Tax Payable	4.32	8.07	11.49	8.45	0.00
Other Current Liabilities	101.58	104.30	130.43	140.62	139.30
Total Current Liabilities	139.78	158.21	201.14	221.13	218.92
Long-Term Debt	35.00	300.00	575.00	574.78	574.17
Provision for Risks & Charges	0.00	0.00	0.00	20.40	15.41
Deferred Tax Liabilities	8.47	10.49	36.38	30.41	27.28
Other Liabilities	21.83	33.08	41.11	46.82	52.09
Total Liabilities	205.09	501.78	853.62	893.55	887.87
Common Equity	531.58	517.38	559.69	525.90	672.26
Total Shareholders' Equity	531.58	517.38	559.69	525.90	672.26
Total Equity	531.58	517.38	559.69	525.90	672.26
Total Liabilities & Shareholders' Equity	736.67	1019.16	1413.32	1419.45	1560.13
Per Share					
Book Value per Share	12.87	12.92	14.34	13.77	17.64
Tangible Book Value per Share	4.44	-0.72	-8.24	-8.51	-3.52
All figures in millions of U.S. Dollar except per share items.					

Appendix 3: 5-Year Historical Statement of Cash Flows

FactSet Research Systems Inc.					
FDS 303075105 2329770 NYSE Common stock					
Source: FactSet Fundamentals					
	AUG '15	AUG '16	AUG '17	AUG '18	AUG '19
Operating Activities					
Net Income / Starting Line	241.05	338.82	258.26	267.09	352.79
Depreciation, Depletion & Amortization	31.35	38.05	48.29	57.29	60.46
Deferred Taxes & Investment Tax Credit	-0.97	4.53	4.88	-1.91	-2.28
Other Funds	-2.61	-100.86	25.13	31.66	32.60
Funds from Operations	268.82	280.54	336.57	354.12	443.57
Changes in Working Capital	37.62	50.60	-16.04	31.55	-16.44
Net Operating Cash Flow	306.44	331.14	320.53	385.67	427.14
Investing Activities					
Capital Expenditures	-25.68	-47.74	-36.86	-33.52	-59.37
Net Assets from Acquisitions	-34.76	-262.91	-303.09	-15.00	0.00
Sale of Fixed Assets & Businesses	-	153.14	0.00	0.00	-
Purchase/Sale of Investments	-4.44	-0.90	-7.36	-0.01	3.27
Net Investing Cash Flow	-64.88	-158.41	-347.31	-48.53	-56.10
Financing Activities					
Cash Dividends Paid	-66.55	-74.22	-80.90	-89.41	-100.05
Change in Capital Stock	-184.69	-299.98	-210.93	-232.35	-113.32
Issuance/Reduction of Debt, Net	34.97	264.99	274.56	0.00	0.00
Other Funds	28.95	18.21	9.11	1.72	-0.90
Net Financing Cash Flow	-187.33	-91.00	-8.16	-320.04	-214.27
Exchange Rate Effect	-11.70	-12.24	1.26	-3.21	-5.59
Miscellaneous Funds	0.00	0.00	0.00	0.00	0.00
Net Change in Cash	42.54	69.49	-33.68	13.89	151.18
Free Cash Flow	280.76	283.40	283.66	352.15	367.77
Free Cash Flow per Share	6.65	6.85	7.16	8.94	9.46
Free Cash Flow Yield (%)	4.21	3.85	4.55	3.90	3.48
All figures in millions of U.S. Dollar except per share items.					

Appendix 4: 5-Year Historical Income Statement

FactSet Research Systems Inc.					
FDS 303075105 2329770 NYSE Common stock					
Source: FactSet Fundamentals					
	AUG '15	AUG '16	AUG '17	AUG '18	AUG '19
Sales	1,006.8	1,127.1	1,221.2	1,350.1	1,435.4
Cost of Goods Sold (COGS) incl. D&A	405.3	484.2	345.3	433.7	448.7
Gross Income	601.4	642.9	875.9	916.4	986.6
SG&A Expense	266.0	282.9	502.8	536.0	546.8
EBIT (Operating Income)	335.5	360.0	373.1	380.5	439.8
Nonoperating Income - Net	1.4	113.6	-2.5	4.6	1.9
Interest Expense	0.1	2.7	8.2	15.9	19.8
Unusual Expense - Net	3.0	9.9	18.1	17.4	-
Income Taxes	92.7	122.2	86.1	84.8	69.2
Consolidated Net Income	241.1	338.8	258.3	267.1	352.8
Net Income	241.1	338.8	258.3	267.1	352.8
Net Income available to Common	241.1	338.8	258.3	267.1	352.8
Per Share					
EPS (recurring)	5.76	8.36	6.83	7.09	9.08
EPS (diluted)	5.71	8.19	6.51	6.78	9.08
Earnings Persistence	94.26	69.84	67.42	87.28	94.59
Dividends per Share	1.66	1.88	2.12	2.40	2.72
EBITDA					
EBITDA	366.8	398.1	421.4	437.8	500.3
All figures in millions of U.S. Dollar except per share items.					

Endnotes

- i. FactSet Research Systems Inc. "Integrated Financial Data and Software Solutions for Investment Professionals." FactSet, www.factset.com/.
- ii. FactSet Research Systems Inc. "Integrated Financial Data and Software Solutions for Investment Professionals." FactSet, www.factset.com/.
- iii. FactSet Research Systems Inc. "Integrated Financial Data and Software Solutions for Investment Professionals." FactSet, www.factset.com/.
- iv. FactSet Research Systems Inc. "Integrated Financial Data and Software Solutions for Investment Professionals." FactSet, www.factset.com/.
- v. FactSet Research Systems Insider Trades (NYSE:FDS). www.marketbeat.com/stocks/NYSE/FDS/insider-trades/.
- vi. Miller, Anna. "IBISWorld Industry Report OD5491 Financial Data Service Providers in the US." 2018.
- vii. Miller, Anna. "IBISWorld Industry Report OD5491 Financial Data Service Providers in the US." 2018.
- viii. Miller, Anna. "IBISWorld Industry Report OD5491 Financial Data Service Providers in the US." 2018.
- ix. Miller, Anna. "IBISWorld Industry Report OD5491 Financial Data Service Providers in the US." 2018.
- x. Miller, Anna. "IBISWorld Industry Report OD5491 Financial Data Service Providers in the US." 2018.
- xi. Khan, Taimur Ali. (2011) "Cointegration of International Stock Markets: An Investigation of Diversification Opportunities,"