Report Date: 2020 April 24

Last Close 275.03 (USD)	Avg Daily Vol 40.6M	52-Week High 327.85	Trailing PE 21.7	Annual Div 3.08	ROE 55.5%	LTG Forecast 12.6%	1-Mo Return 22.6%
2020 April 23 NASDAQ Exchange	Market Cap 1.2T	52-Week Low 170.27	Forward PE 21.8	Dividend Yield 1.1%	Annual Rev 267.7B	Inst Own 61.7%	3-Mo Return -13.8%

VERUS OPINION



The Verus Opinion, provided by Verus Analytics Inc, is an empirically-derived and historically back-tested stock rating system with buy, hold, and sell opinions. To develop a rating, the quantitative system analyzes a company's earnings quality, balance sheet, and income statement, conducts technical and valuation analysis and evaluates the transactions made by the firm's management and directors (i.e. insiders).

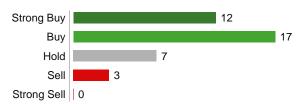
Technology Equipment / Computers, Phones & Electr. / Phones & Handheld Devices

The Verus Opinion covers 4073 companies, with 19.1% rated Buy, 63.3% rated Hold, and 17.6% rated Sell as of 2020-04-17. Verus Analytics Inc is a private independent research firm, unaffiliated with Refinitiv, that specializes in engineering institutional ratings systems.



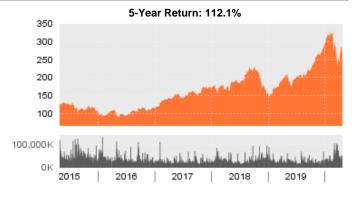
I/B/E/S MEAN





PRICE AND VOLUME CHARTS





BUSINESS SUMMARY

Apple Inc. designs, manufactures and markets mobile communication and media devices, personal computers and portable digital music players. The Company sells a range of related software, services, accessories, networking solutions, and third-party digital content and applications. The Company's segments include the Americas, Europe, Greater China, Japan and Rest of Asia Pacific. The Americas segment includes both North and South America. The Europe segment includes European countries, India, the Middle East and Africa. The Greater China segment includes China, Hong Kong and Taiwan. The Rest of Asia Pacific segment includes Australia and the Asian countries not included in the Company's other operating segments. Its products and services include iPhone, iPad, Mac, iPod, Apple Watch, Apple TV, a portfolio of consumer and professional software applications, iPhone OS (iOS), OS X and watchOS operating systems, iCloud, Apple Pay and a range of accessory, service and support offerings.

Report Date: 2020 April 24

PEER	RANALYSIS										Currency	y in USD
			PRICE	MOMENTU	M		VALUA	TION	FUNDAM	ENTAL	ANALYSTS	
Verus Opinion	Ticker	Price 2020-04-23	1-Mo Return	3-Mo Return	1-Yr Return	Market Cap	Trailing PE	Forward PE	Dividend Yield	Net Margin	LTG I/B/E/S Forecast Mean	# of Analysts
Hold	AAPL	275.03	22.6%	-13.8%	32.6%	1.2T	21.7	21.8	1.1%	21.5%	12.6% Buy	39
Buy	HPQ	14.62	6.7%	-33.8%	-27.2%	22.2B	7.3	6.6	4.8%	5.2%	7.6% Hold	15
Hold	STX	47.89	17.4%	-23.7%	-0.7%	13.4B	7.8	9.1	5.4%	17.6%	9.1% Hold	26
Hold	WDC	39.39	14.6%	-44.5%	-27.7%	12.7B		7.0	5.1%	-7.7%	Buy	31
Buy	HPE	9.27	18.4%	-38.9%	-43.9%	12.5B	10.4	6.3	5.2%	4.2%	4.9% Hold	21
Hold	DELL	38.91	14.6%	-22.8%	-40.1%	10.5B	6.1	7.2		5.0%	6.4% Buy	17
Hold	NTAP	41.04	16.1%	-32.2%	-46.5%	9.3B	9.7	9.9	4.7%	18.2%	6.0% Hold	25
Hold	SNX	72.99	-1.9%	-49.5%	-32.2%	4.0B	7.0	24.0		2.2%	11.9% Strong Buy	7
Hold	FIT	6.86	11.2%	2.7%	24.7%	1.6B				-22.4%	Hold	8
Sell	DZSI	5.24	63.8%	-48.7%	-51.2%	113M		145.6		-4.4%	20.0% Buy	3
Hold	WSTL	0.78	27.5%	-29.3%	-63.3%	10M				-45.8%		
	Average	50.18	19.2%	-30.4%	-25.0%	120.3B	10.0	26.4	4.4%	-0.6%	9.8% Buy	19.2

PEER COMPANIES

HPQ	HP Inc	NTAP	NetApp Inc
STX	Seagate Technology	SNX	SYNNEX Corp
WDC	Western Digital Corp	FIT	Fitbit Inc
HPE	Hewlett Packard Enterprise Co	DZSI	DASAN Zhone Solutions Inc
DELL	Dell Technologies Inc	WSTL	Westell Technologies Inc

EARNINGS HIGHLIGHTS

- AAPL's current quarter consensus estimate has decreased over the past 90 days from 2.79 to 2.28, a loss of -18.3%. Consensus estimates for the Phones & Handheld Devices industry have moved an average -18.0% during the same time period.
- There have been 5 upward and 2 downward broker recommendation changes for Apple Inc over the past 120 days.

PRICE TARGET

The chart indicates where analysts predict the stock price will be within the next 12 months, as compared to the current price.



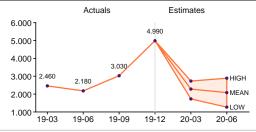
12-Month Price Target			
Mean (USD)	304.00		
High	371.00		
Low	208.00		
Target vs. Current	10.5%		
# of Analysts	37		

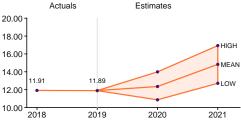
EARNINGS PER SHARE

Currency in USD

Earnings per share (EPS) is calculated by dividing a company's earnings by the number of shares outstanding. Analysts tend to interpret a pattern of increasing earnings as a sign of strength and flat or falling earnings as a sign of weakness.

The charts provide a comparison between a company's actual and estimated EPS, including the high and low forecasts.





Quarterly	20-03	20-06
Mean	2.282	2.083
High	2.730	2.890
Low	1.730	1.270
# of Analysts	29	28

Annual	2020	2021
Mean	12.350	14.830
High	13.990	16.930
Low	10.860	12.710
# of Analysts	36	36

Report Date: 2020 April 24

ANALYST REVISIONS

Last 120 Days		Last 30 Days	;
# Broker Upgrades	5	# Up Revisions	0
# Broker Downgrades	2	# Down Revisions	13
		Avg Up Revisions	0.0%
		Avg Down Revisions	-32.5%

MEAN ESTIMATE TREND

	Q 20-03	Q 20-06	Y 2020	Y 2021	Price Target
Current	2.282	2.083	12.350	14.830	304.00
30 Days Ago	2.420	2.241	12.920	15.280	314.00
90 Days Ago	2.793	2.445	13.000	14.860	292.00
% Change (90 Days)	-18.3%	-14.8%	-5.0%	-0.2%	4.1%

Next Expected Report Date: 2020-04-30

EARNINGS SURPRISES

Comparing a company's actual earnings to the mean expectation of analysts results in a difference referred to as a 'positive' or 'negative' surprise. Research has shown that when a company reports a surprise, it is often followed by more of the same surprise type.

Surprise Summary (Last 12 Quarters)

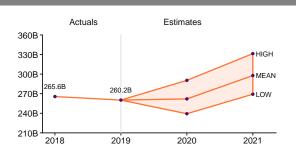
Surprise Type	Amount	Percent
Positive Quarters (> 2%)	10	83.3%
Negative Quarters (< -2%)	0	
In-Line Quarters (within 2%)	2	16.7%

Surprise Detail (Last 6 Periods)

Surprise Type	Announce Date	Period End Date	Actual EPS	Mean EPS	Surprise (%)
Positive	2020-01-28	2019-12-31	4.990	4.547	9.7%
Positive	2019-10-30	2019-09-30	3.030	2.839	6.7%
Positive	2019-07-30	2019-06-30	2.180	2.098	3.9%
Positive	2019-04-30	2019-03-31	2.460	2.361	4.2%
In-Line	2019-01-29	2018-12-31	4.180	4.167	0.3%
Positive	2018-11-01	2018-09-30	2.910	2.783	4.6%

ANNUAL REVENUE

A pattern of increasing sales in conjunction with a rising EPS may influence a buy recommendation, while flat or falling sales and faltering earnings may explain a sell recommendation. A rising EPS with flat or falling sales may result from increased cost efficiency and margins, rather than market expansion. This chart shows the sales forecast trend of all analysts and the highest and lowest projections for the current and next fiscal year.



	2020	2021
Mean	262.0B	297.8B
High	290.4B	331.4B
Low	239.3B	269.2B
Forecasted Growth	0.7%	14.5%
# of Analysts	33	32

FUNDAMENTAL HIGHLIGHTS

- AAPL's current revenue growth of 2.3% is substantially below its fiveyear average of 7.3%.
- AAPL's current accruals ratio is substantially below its five-year average of -2.1%.
- AAPL's current interest coverage (number of times interest payments are covered by EBIT) of 34.0 is below its five-year average of 42.9.
- Of the 4 firms within the Phones & Handheld Devices industry, Apple Inc is the only one that pays a dividend. The stock's dividend yield is currently 1.1%.

FUNDAMENTAL METRICS

Profitab		D	
	AAPL	Industry Avg	
Revenue Growth For year over year ending 2019-12	2.3%	2.3%	Current Ratio For interim period ending 2019-12
Gross Margin For latest 12 months ending 2019-12	37.9%	37.9%	Debt-to-Capital For annual period ending 2019-09
Return on Equity For interim period ending 2019-12	55.5%	55.5%	Interest Funding For interim period ending 2019-12
Net Margin For latest 12 months ending 2019-12	21.5%	21.5%	Interest Coverage For interim period ending 2019-12

Deb	ot		Divide	nd	
	AAPL	Industry Avg		AAPL	Industr
urrent Ratio For interim period ending 2019-12	1.6	1.6	Div. Growth Rate For year over year ending 2019-12	7.8%	7.89
ebt-to-Capital For annual period ending 2019-09	50.4%	50.4%	Dividend Payout For latest 12 months ending 2019-12	24.5%	24.2%
terest Funding For interim period ending 2019-12	3.0%	3.0%	Dividend Coverage For annual period ending 2019-09	5.2	5.
terest Coverage For interim period ending 2019-12	34.0	34.0	Current Div. Yield For latest 12 months ending 2020-04	1.1%	0.09



Report Date: 2020 April 24

RELATIVE VALUATION HIGHLIGHTS

- AAPL's Trailing P/E, Forward P/E, and Forward PEG multiples are all significantly above (more expensive than) their 5-year averages.
- Based on Trailing P/E, AAPL currently trades at a 0.8% Discount to its Phones & Handheld Devices industry peers. On average, the company has traded at a 5% Discount over the past five years.

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- Based on Forward PEG, AAPL currently trades at a 29% Premium to its Phones & Handheld Devices industry peers. On average, the company has traded at a 22% Premium over the past five years.
- At 21.8, AAPL's current Forward P/E is at a 6% Premium to the S&P 500 index average of 20.5.

TRAILING PE

The most recent week's close price divided by the sum of the four most recently reported quarterly earnings.

> Trailing PE 21.7 5-Year Average: 16.3 S&P 500 Index Average: 20.9 Industry Average: 21.9



FORWARD PE

The most recent week's close price divided by the sum of the four upcoming quarterly consensus estimates.

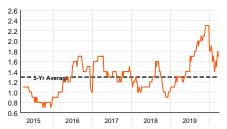
> Forward PE 21.8 5-Year Average: 14.8 S&P 500 Index Average: 20.5 Industry Average: 21.9



FORWARD PEG

The Forward P/E divided by the five-year forecasted growth rate.

Forward PEG 1.7 5-Year Average: 1.3 S&P 500 Index Average: 2.8 Industry Average: 1.3



RISK HIGHLIGHTS

- On days when the market is up, AAPL tends to outperform the S&P 500 index. On days when the market is down, the stock generally performs in-line with the index.
- In both short-term and long-term periods, AAPL has shown high correlation (>= 0.4) with the S&P 500 index. Thus, this stock would provide only low levels of diversification to a portfolio similar to the broader market.
- Over the last 90 days, AAPL shares have been less volatile than the overall market, as the stock's daily price has fluctuated less than 84% of S&P 500 index firms.

RISK ANALYSIS

		Las	t 90 Da	ıys		Last 60	Last 60 Months		
Peers	Best Daily Return	Worst Daily Return	# Days Up	# Days Down	Largest Intra-Day Swing	Best Monthly Return	Worst Monthly Return		
AAPL	12.0%	-12.9%	27	37	10.4%	19.6%	-18.4%		
DZSI	31.8%	-20.8%	25	37	37.2%	55.0%	-24.3%		
FIT	3.7%	-3.9%	30	28	7.9%	62.2%	-43.4%		
HPQ	16.7%	-15.8%	29	35	16.2%	15.4%	-18.1%		
WSTL	10.2%	-9.6%	30	31	18.3%	40.7%	-33.8%		
S&P 500	9.4%	-12.0%	29	34	8.1%	8.3%	-11.1%		

RISK METRICS

Magnitude of Returns		Volatility	′
Daily Returns (Last	90 Days)	Standard Deviation	
Best	12.0%	Last 90 Days	4.39
Worst	-12.9%	Last 60 Months	7.80
Monthly Returns (L	ast 60 Months)	Intra-Day Swing (Las	t 90 Days)
Best	19.6%	Average	3.8%
Worst	-18.4%	Largest	10.4%

PRICE ANALYSIS	

_	AAPL	Industry Avg
Last 1 Month	51	51
Last 3 Months	51	49
Last 6 Months	51	49

Relative Strength Indicator (scale 1-100, 100 is best)

Beta (1-Year)		Correlation	
Beta vs. S&P 500	1.13	Correlation vs. S&P 500	
Positive Days Only	1.11	Last 90 Days	94%
Negative Days Only	1.07	Last 60 Months	61%
Beta vs. Group	1.01	Correlation vs. Group	
Positive Days Only	1.04	Last 90 Days	86%
Negative Days Only	0.98	Last 60 Months	61%

SEASONALITY

	APR	MAY	JUN
Company Avg	0.6%	2.0%	-1.5%
Industry Avg	-1.4%	-2.7%	6.0%
Industry Rank	118 of 120	88 of 121	1 of 121



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COMPANY IN CONTEXT REPORT

AAPL

275.03

327.85

170.27

Report Date: 2020 April 24

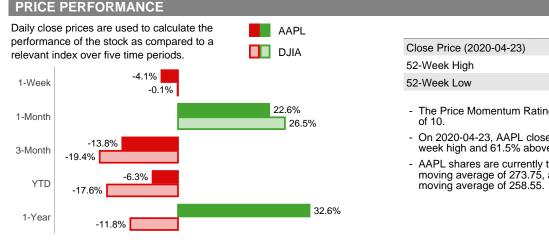
Currency in USD

DJIA

23,515

29,551

18,592



- The Price Momentum Rating for Apple Inc is at its 3-year high of 10.

- On 2020-04-23, AAPL closed at 275.03, 16.1% below its 52-week high and 61.5% above its 52-week low.
- AAPL shares are currently trading 0.5% above their 50-day moving average of 273.75, and 6.4% above their 200-day moving average of 258.55.

INSIDER TRADING HIGHLIGHTS

 Since the beginning of the current quarter, sales by Apple Inc executives have totaled \$23,377,772. Over the past five years, the average sell total for Q2 has been \$46,449,413.

MONTHLY BUYS AND SELLS



MOST RECENT BUYS AND SELLS

Insider buys and sells with the most recent transaction dates during the last 90 days.

include buye and colle with the most recont transaction dates during the last co days.							
Name	Role	Tran Date	Tran Type	Shares	Market Value		
O'Brien, Deirdre	Officer	2020-04-16	Sale	9,137	2,605,141		
Maestri, Luca	CFO	2020-04-07	Sale	41,062	10,858,445		
Williams, Jeffrey E	COO	2020-04-02	Sale	41,062	9,914,186		
Levinson, Arthur D	Director	2020-02-03	Sale	1,429	434,573		

TOP INSTITUTIONAL HOLDERS

The top five institutional holders based on the total number of shares held.

Institution	Inst. Type	% O/S	Shares Reported Held Date
The Vanguard Group Inc	Inv Mgmt	7.5%	329M 2019-12-31
Berkshire Hathaway Inc	Inv Mgmt	5.6%	245M 2019-12-31
BlackRock Institutional	Inv Mgmt	4.3%	190M 2019-12-31
State Street Global	Inv Mgmt	4.2%	183M 2019-12-31
Fidelity Management	Inv Mgmt	2.1%	92.8M 2019-12-31

Updated daily as of 2020-04-23

TOP EXECUTIVE HOLDERS

The top five insider holders based on the total number of direct holdings. Indirect holdings are excluded.

Insider Name	Role	# Direct Shares	Value	Reported Date
Levinson, Arthur D	D	1.13M	260M	2020-02-04
Cook, Timothy D	CEO	0.85M	194M	2019-12-27
Federighi, Craig	0	0.41M	94.6M	2018-08-10
Gore, Albert A Jr	D	0.12M	26.4M	2020-01-31
Williams, Jeffrey E	CO	0.11M	24.8M	2019-10-03

Updated monthly as of 2020-03-22



Technology Equipment / Computers, Phones & Electr. / Phones & Handheld Devices

COMPANY IN CONTEXT REPORT

Report Date: 2020 April 24

REPORT TIPS

The Company in Context Report provides a comprehensive company analysis based on industry-leading market data from Refinitiv and a proprietary rating from Verus Analytics. The report is updated daily, although some of the data elements and the ratings are updated weekly.

Peer Analysis

The Refinitiv Business Classification (TRBC) schema is used for industry comparisons. The system includes 10 Economic Sectors, 28 Business Sectors, 54 Industry Groups, and 136 Industries.

The Peer Analysis section of the report compares the company to its ten closest peers, selected based on similar market capitalization. The peer listing may have fewer than ten companies if there are fewer classified within that industry.

<u>Highlights</u>
The automated text-generation system from Refinitiv creates highlights summarizing the most noteworthy data. The bullets will vary by company and will change from week to week as different criteria are met.

Earnings

Earnings Per Share

The quarterly and annual earnings per share are presented when available, along with the mean, high and low. Quarterly data is displayed for the past 4 quarters (actual) and the next 2 quarters (estimated). Annual data is displayed for the past 2 years (actual) and the next 2 years (estimated).

Mean Estimate Trend

The mean estimates show how the consensus has changed over the past 30 days and 90 days for the upcoming two quarters and two years. The percentage change is calculated for the company as a means for comparison by measuring the difference between the current consensus estimate and that of 90 days ago.

The surprise summary includes the total number of quarters (and percentage) in the past 12 quarters in which earnings surprises were positive, negative, or in-line. In order to be recognized as a positive or negative surprise, the percent must be greater than 2% above or 2% below the consensus, respectively.

Fundamental

Profitability

Revenue Growth: (Net Sales - Previous Net Sales) / Previous Net Sales

Gross Margin: Gross Profit / Net Sales Return on Equity: Net Income / Total Equity

Net Margin: Net Profit / Net Sales

Debt

Current Ratio: Current Assets / Current Liabilities

Debt-to-Capital: Total Debt / Total Capital

Interest Funding: Interest Expense / Operating Cash Flow

Interest Coverage: (Pre-Tax Income + Interest Expense) / Interest Expense

Dividend Growth Rate: (Dividends per Share - Previous Dividends per Share) /

Previous Dividends per Share

Dividend Funding: Dividends / Operating Cash Flow

Dividend Coverage: (Pre-Tax Income + Interest Expense) / (Interest Expense + Dividends)

Dividend Yield: Annual Dividends per Share / Current Market Price per Share

Relative Valuation

A discount occurs when the company's ratio is valued more favorably (lower) than that to which it is compared.

Valuation Averages

Negative values are excluded when calculating the averages. A maximum value of 100 is placed on Trailing P/E and Forward P/E, and a maximum value of 5 is placed on Forward PEG when calculating the averages.

Magnitude of Returns

The best / worst daily returns in the past 90 days and the best / worst monthly returns in the past 60 months.

The standard deviation of the stock price over the last 90 days and last 60 months, along with the average and largest intra-day stock swing.

Measures the tendency of a security's returns to respond to swings in the market, based on the beta of the company versus the relevant index.

Correlation

Determines how closely the returns of the stock and the relevant index move together, measured over the last 90 days and last 60 months.

Price Momentum

Relative Strength

Measures the speed and change of price movements. A value above 70 is considered overbought while a value below 30 is considered oversold.

The average monthly return for the current month and next 2 months for the company and industry, over the past 10 years. A lower industry rank indicates a higher return.

Insider Trading

Monthly Buys and Sells

The total market value of open-market buying and selling is displayed by month for easy comparison. Transactions by trusts and corporations are excluded, along with buys greater than \$10 million and sales greater than \$50 million.

Institutional Holders

The top five institutional holders of the company are listed in descending order, based on their total share holdings. Possible values for the institution type include Brokerage, Funds, Inv Mgmt, or Strategic.

Executive Holders

The top five executive insiders of the company are listed in descending order, based on their total direct common share holdings (options are not considered). Indirect holdings are excluded, as the owner may not actually have investment discretion over these shares. Insiders who have not filed any transactions or holdings over the past two years are excluded, as the individual may no longer be associated with the company. Direct shares held must be greater than 1,000 to be considered.

Insider Roles

AF - Affiliate

AI - Affiliate of Advisor B - Beneficial Owner

C - Controller

CB - Chairman

CEO - Chief Executive Officer CFO - Chief Financial Officer

CI - Chief Investment Officer

CO - Chief Operating Officer

CT - Chief Technology Officer

D - Director

DO - Director / Beneficial Owner

EVP - Exec Vice President

FO - Former

GC - General Counsel

H - Officer / Director / Owner

IA - Investment Advisor

MC - Member of Committee

O - Officer

OB - Officer / Beneficial Owner

OD - Officer / Director

OE - Other Executive OS - Officer of Subsidiary

OT - Officer / Treasurer

OX - Divisional Officer P - President

R - Retired

SH - Shareholder

SVP - Senior Vice President T - Trustee

UT - Unknown

VP - Vice President

VERUS ANALYTICS

Verus Analytics, Inc is a private firm specializing in engineering rating systems for institutional clients, wealth managers and self-directed investors. They also provide proprietary ratings of earnings quality, fundamental and valuation elements directly to institutional clients. Verus Analytics (previously Camelback Research Alliance, Inc. and the quantitative business unit of Gradient Analytics, Inc) was founded in 1996 by two former tenured professors, Dr. Carr Bettis and Dr. Donn Vickrey. Today the core team consists of financial engineers, business analysts and technology personnel. Verus Analytics does not engage in investment banking services.

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