

# Apple AAPL UNDERVALUED 6.4%

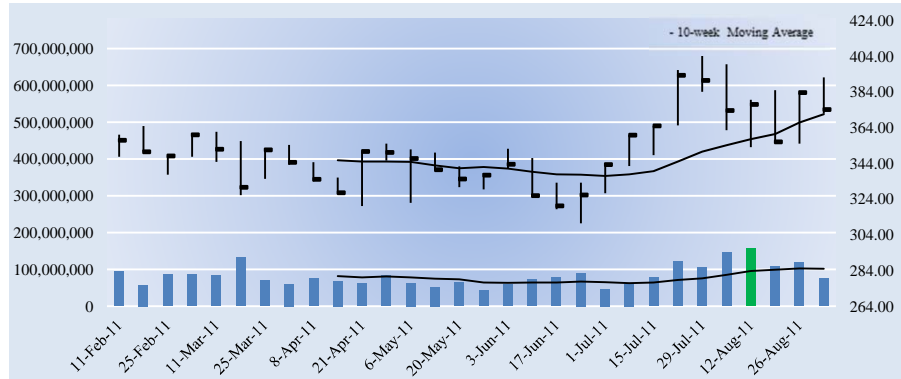
**Buying Index™** 7

**Value Rating** 

<b>Last Close</b> \$374.05	<b>Estimated Fair Value</b> \$531.00	<b>Fair Value Range</b> \$398.00 - \$664.00	<b>Investment Style</b> MEGA-CAP BLEND	<b>Sector</b> Information Technology	<b>Industry</b> Computers & Peripherals - hardware
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**We think the market is being too conservative with Apple's valuation.**

### Stock Chart (weekly)



The week with the highest trading volume out of the last 13 weeks was a week of heavy buying, or accumulation (green bar).

### Company Vitals

Market Cap (USD)	\$345,888
Avg Weekly Vol (30 wks)	83,336
30-week Range (USD)	310.5 - 404.5
Valuentum Sector	Information Technology
5-week Return	-6.0%
13-week Return	8.1%
30-week Return	7.5%
Dividend Yield %	0.0%
Dividends per Share	0.00
Forward Dividend Payout Ratio	0.0%
Est. Normal Diluted EPS	35.88
P/E on Est. Normal Diluted EPS	10.4
Est. Normal EBITDA	55,251
Forward EV/EBITDA	7.6
EV/Est. Normal EBITDA	5.8
Forward Revenue Growth (5-yr)	22.2%
Forward EPS Growth (5-yr)	21.1%

NMF = Not Meaningful; Est. = Estimated; FY = Fiscal Year

### Returns Summary

	3-year Historical Average
Return on Equity	31.2%
Return on Assets	18.9%
ROIC, with goodwill	223.5%
ROIC, without goodwill	240.2%

ROIC = Return on Invested Capital; NMF = Not Meaningful

### Leverage, Coverage, and Liquidity

In Millions of USD	
Total Debt	0
Net Debt	-25,620
Total Debt/EBITDA	0.0
Net Debt/EBITDA	NMF
EBITDA/Interest	19412000.0
Current Ratio	2.0
Quick Ratio	1.7

NMF = Not Meaningful

### Investment Highlights

- Apple's continuous innovation makes it a standout versus peers. The firm has revolutionized many aspects of the land of tech, from the iPod to the iPad, and we expect the future to be just as robust as the past. We think the market is being too conservative in valuing Apple and view its shares as a bargain under \$400.

- Although we think the firm's DCF valuation indicates a potential attractive investment opportunity, we'd be more comfortable investing in the firm if it was more attractively priced on a relative basis versus peers as well.

- Apple has an excellent combination of strong free cash flow generation and low financial leverage. We expect the firm's free cash flow margin to average about 23.9% in coming years, and the firm had no debt as of last quarter.

- The company's stock price has outperformed the benchmark during the last quarter, and its valuation still looks interesting at these levels. Investors could be accumulating shares, as the stock continues to trade at bargain-basement levels.

- The firm is nearing support levels based on its 10-week moving average. We'd pay close attention to see if it bounces from here or breaks through support for an indication of its future price trend.

### Investment Considerations

DCF Valuation	UNDERVALUED
Relative Valuation	NEUTRAL
ValueCreation™	EXCELLENT
ValueRisk™	MEDIUM
ValueTrend™	POSITIVE
Cash Flow Generation	STRONG
Financial Leverage	LOW
Growth	AGGRESSIVE
Technical Evaluation	BULLISH
Relative Strength	STRONG
Money Flow Index (MFI)	NEUTRAL
Upside/Downside Volume (U/D)	BULLISH
Near-term Technical Support, 10-week MA	<b>372.00</b>

DCF = Discounted Cash Flow; MFI, U/D = Please see glossary. MA = Moving Average

### Business Quality

ValueRisk™	ValueCreation™			
	Very Poor	Poor	Good	Excellent
Low				
Medium				
High				
Very High				

Firms that generate economic profits with little operating variability score near the top right of the matrix.

### Relative Valuation

	Forward P/E	PEG	Price / FV
Dell	7.2	1.9	61.9%
Hewlett-Packard	5.1	1.7	55.3%
IBM	12.4	1.9	88.8%
Research in Motion	6.0	NMF	77.2%
Peer Median	6.6	1.9	69.6%
<b>Apple</b>	<b>13.2</b>	<b>1.2</b>	<b>70.4%</b>

Price / FV = Current Stock Price divided by Estimated Fair Value

### Financial Summary

	Actual		Projected
	Sep-09	Sep-10	Sep-11
Revenue	42,905	65,225	109,121
Revenue, YoY%	32.1%	52.0%	67.3%
Operating Income	11,740	18,385	40,499
Operating Margin %	27.4%	28.2%	37.1%
Net Income	8,235	14,013	26,526
Net Income Margin %	19.2%	21.5%	24.3%
Diluted EPS	9.08	15.15	28.31
Diluted EPS, YoY %	69.4%	66.9%	86.8%
Free Cash Flow (CFO-capex)	8,946	16,474	28,806
Free Cash Flow Margin %	20.9%	25.3%	26.4%

In Millions of USD (except for per share items)

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**Economic Profit Analysis****ValueCreation™****EXCELLENT**

The best measure of a firm's ability to create value for shareholders is expressed by comparing its return on invested capital (ROIC) with its weighted average cost of capital (WACC). The gap or difference between ROIC and WACC is called the firm's economic profit spread. Apple's 3-year historical return on invested capital (without goodwill) is 240.2%, which is above the estimate of its cost of capital of 9.8%. As such, we assign the firm a ValueCreation™ rating of EXCELLENT. In the chart to the right, we show the probable path of ROIC in the years ahead based on the estimated volatility of key drivers behind the measure. The solid grey line reflects the most likely outcome, in our opinion, and represents the scenario that results in our fair value estimate.

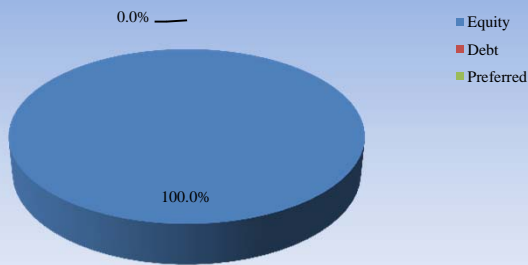
ROIC - WACC Spread, 3-year historical average 230.4%

ROIC - WACC Spread, 5-year projected average 333.4%

These spreads equal the firm's annual average ROIC (excluding goodwill) less its WACC.

**ValueTrend™****POSITIVE**

Apple receives a ValueTrend™ rating of POSITIVE, which is based on the company's trailing three-year performance. The firm's ROIC (excluding goodwill) increased to 278.6% last year from its trailing 3-year average of 240.2%. We expect ROIC (excluding goodwill) to be in the ballpark of about 273% by the end of our discrete forecast period, with upside potential to about 388% over that time period.

**Weighted Average Cost of Capital (WACC)****Capital Structure****Cost of Equity**

Risk Free Rate Assumption	4.3%
Fundamental Beta (ERP multiplier)	0.9
Estimated Equity Risk Premium	6.5%
<b>Cost of Equity Assumption</b>	<b>9.8%</b>

**After-tax Cost of Debt**

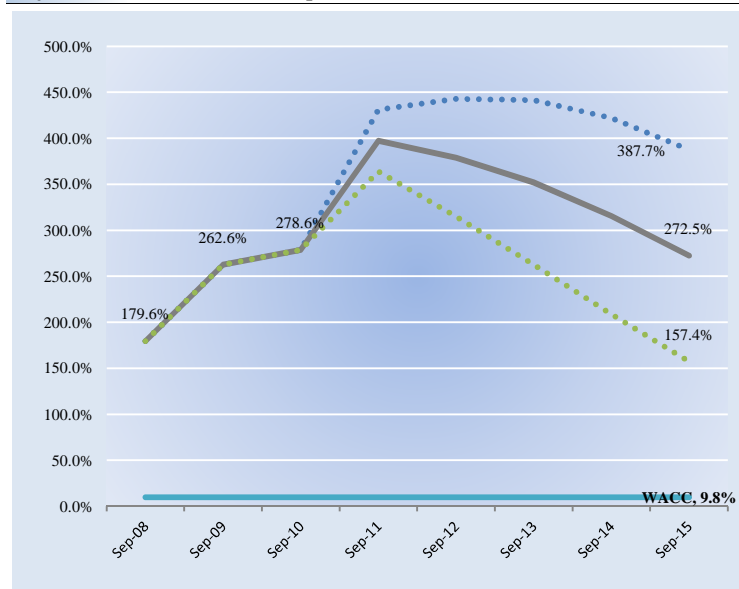
Risk Free Rate Assumption	4.3%
Synthetic Credit Spread	NA
Cost of Debt Assumption	NA
Cash Tax Rate Assumption	35.0%
<b>After-tax Cost of Debt Assumption</b>	<b>NA</b>

**Cost of Preferred Stock**

Preferred Dividends	0
Value of Preferred Stock	0
Cost of Preferred Assumption	NA

**Weighted Average Cost of Capital (WACC) 9.8%**

ERP = Equity Risk Premium

**Adjusted Return on Invested Capital (ROIC)**

The graph above shows the firm's ROIC (excluding goodwill) compared with historical averages and its WACC.

**ROIC Calculation**

	----- Actual -----		
Fiscal Year End:	Sep-08	Sep-09	Sep-10
<b>Earnings before Interest</b>			
Operating Income after Depreciation	6,275	11,740	18,385
- Adjusted Taxes (at 35% of EBIT)	2,196	4,109	6,435
+ Amortization	0	0	0
+ Non-cash Operating Items	538	736	903
- Minority Interest	0	0	0
<b>Earnings before Interest</b>	<b>4,617</b>	<b>8,367</b>	<b>12,853</b>

**Invested Capital**

Inventories	509	455	1,051
+ Receivables	4,704	5,057	9,924
+ Current Deferred Income Taxes	1,447	1,135	1,636
+ Other Current Assets + Prepaid Expenses - Ba	3,540	1,444	3,447
+ Property, Plant and Equipment, Net	2,455	2,954	4,768
+ Goodwill, Net (Cost in Excess)	207	206	741
+ Intangibles	285	247	342
+ Non-Current Deferred Income Taxes	0	0	0
- Accounts Payable	5,520	5,601	12,015
- Accrued Expenses and Accrued Liabilities -	8,572	3,197	4,850
<b>Adj Invested Capital, with goodwill</b>	<b>-945</b>	<b>2,700</b>	<b>5,044</b>
<b>Adj Invested Capital, without goodwill</b>	<b>-1,152</b>	<b>2,494</b>	<b>4,303</b>

<b>Return on Invested Capital, with goodwill</b>	<b>171.4%</b>	<b>246.6%</b>	<b>252.6%</b>
<b>Return on Invested Capital, without goodwill</b>	<b>179.6%</b>	<b>262.6%</b>	<b>278.6%</b>

In Millions of USD

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**Investment Style**  
MEGA-CAP BLEND

**Sector**  
Information Technology

**Industry**  
Computers & Peripherals - hardware

## Growth Analysis

### Revenue Growth

**AGGRESSIVE**

		Last Fiscal Year Revenue	3-year Historical CAGR	5-year Projected CAGR
<b>Apple</b>	USD	<b>65,225</b>	<b>39.5%</b>	<b>22.2%</b>
Dell	USD	61,494	0.2%	-0.4%
Hewlett-Packard	USD	126,033	6.5%	-1.0%
IBM	USD	99,871	0.4%	4.9%
Research in Motion	USD	19,907	49.1%	-1.6%
Peer Median			3.4%	-0.7%
Industry Median			6.5%	-0.4%

Apple's revenue expansion has been greater than the median of both its peer group and industry group during the past three years. We expect the firm's revenue expansion to outpace the median of its peer group and industry group during the next five years. Our growth assessment of each firm is based on the firm's 5-year forward revenue CAGR. Apple's future pace of revenue growth is AGGRESSIVE, in our opinion.

### EBITDA Growth

		Last Fiscal Year EBITDA	3-year Historical CAGR	5-year Projected CAGR
<b>Apple</b>	USD	<b>19,412</b>	<b>60.1%</b>	<b>26.3%</b>
Dell	USD	4,403	2.2%	3.9%
Hewlett-Packard	USD	17,736	13.9%	0.1%
IBM	USD	22,982	7.1%	7.0%
Research in Motion	USD	6,001	43.8%	-4.4%
Peer Median			10.5%	2.0%
Industry Median			13.9%	3.9%

Apple's EBITDA expansion has been greater than that of both its peer group and industry group during the past three years. We expect the firm's EBITDA expansion to outpace its peer group and industry group during the next five years. Apple sports the highest expected EBITDA growth rate among peers.

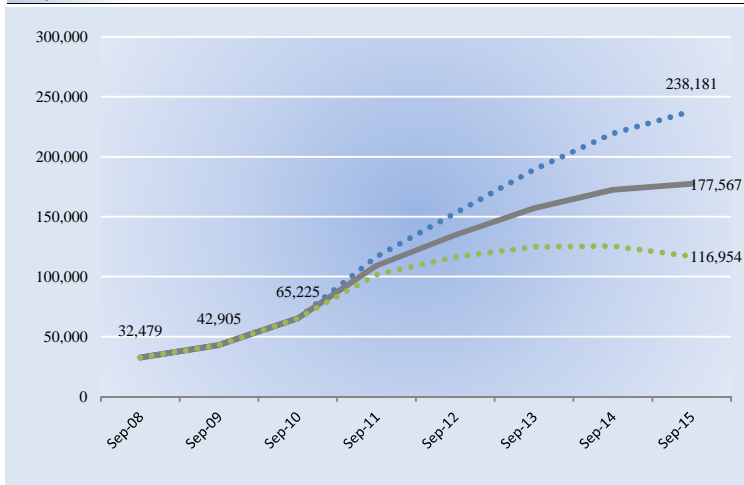
### Net Income Growth

		Last Fiscal Year Net Income	3-year Historical CAGR	5-year Projected CAGR
<b>Apple</b>	USD	<b>14,013</b>	<b>58.8%</b>	<b>22.7%</b>
Dell	USD	2,635	-3.7%	3.5%
Hewlett-Packard	USD	8,761	6.4%	1.8%
IBM	USD	14,833	12.5%	5.5%
Research in Motion	USD	3,411	38.1%	-5.6%
Peer Median			9.5%	2.6%
Industry Median			12.5%	3.5%

Apple's net income expansion has been greater than that of both its peer group and industry group during the past three years. We expect the firm's net income expansion to outpace its peer group and industry group during the next five years. Apple sports the highest expected net income growth rate among peers.

### Projected Revenue (in millions of USD)

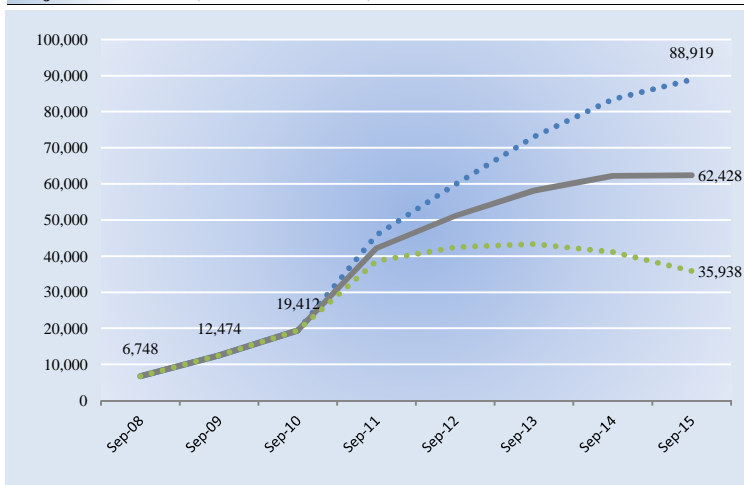
Source: Company Filings, Valuentum Projections



In the chart above, we show our baseline forecast for revenue as well as potential upside and downside cases.

### Projected EBITDA (in millions of USD)

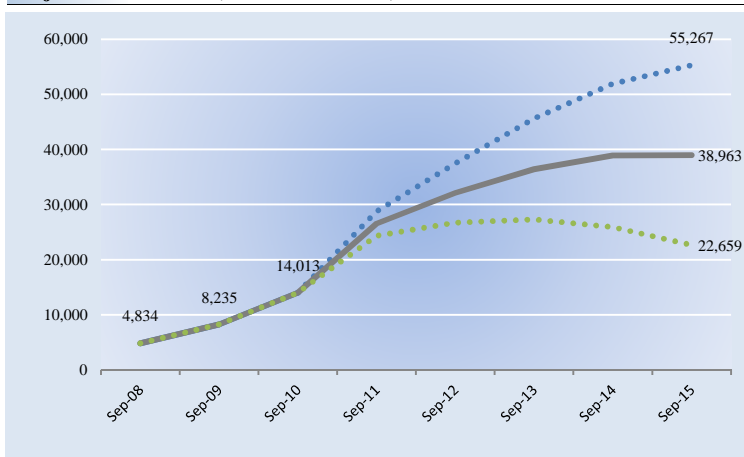
Source: Company Filings, Valuentum Projections



In the chart above, we show our baseline forecast for EBITDA as well as potential upside and downside cases.

### Projected Net Income (in millions of USD)

Source: Company Filings, Valuentum Projections



In the chart above, we show our baseline forecast for net income as well as potential upside and downside cases.

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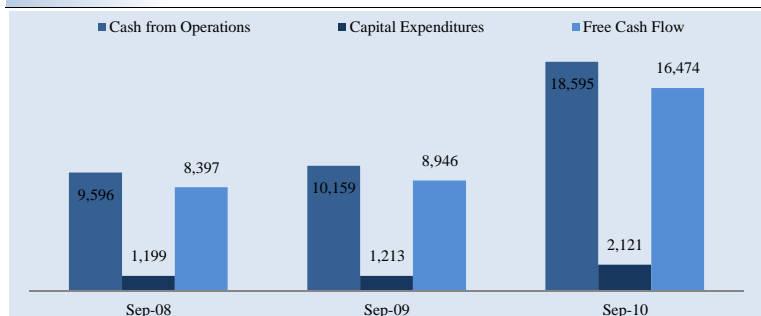
**Sector**  
Information Technology

**Industry**  
Computers & Peripherals - hardware

## Cash Flow and Financial Leverage Analysis

### Cash Flow Generation

**STRONG**



The bars above show the firms operating cash flow, capital expenditures, and free cash flow, respectively.

Firms that generate a free cash flow margin (free cash flow divided by total revenue) above 5% are usually considered cash cows. Apple's free cash flow margin has averaged about 23.1% during the past 3 years. As such, we think the firm's cash flow generation is relatively **STRONG**. The free cash flow measure shown above is derived by taking cash flow from operations less capital expenditures and differs from enterprise free cash flow (FCFF), which we use in deriving our fair value estimate for the company. For more information on the differences between these two measures, please visit our website at Valuentum.com. At Apple, cash flow from operations increased about 94% from levels registered two years ago, while capital expenditures expanded about 77% over the same time period.

### Cash Flow from Operations

	Last Fiscal Year CFO	3-year Historical CAGR	5-year Projected CAGR
<b>Apple</b>	USD 18,595	50.4%	18.4%
Dell	USD 3,969	0.2%	2.7%
Hewlett-Packard	USD 11,922	7.4%	6.5%
IBM	USD 19,549	6.7%	4.9%
Research in Motion	USD 4,447	38.2%	-2.4%
Peer Median		7.1%	3.8%
Industry Median		7.4%	4.9%

Apple's cash flow from operations expansion has been greater than that of both its peer group and industry group during the past three years. We expect the firm's cash flow from operations expansion to outpace its peer group and industry group during the next five years. Apple sports the highest expected cash flow from operations growth rate among peers.

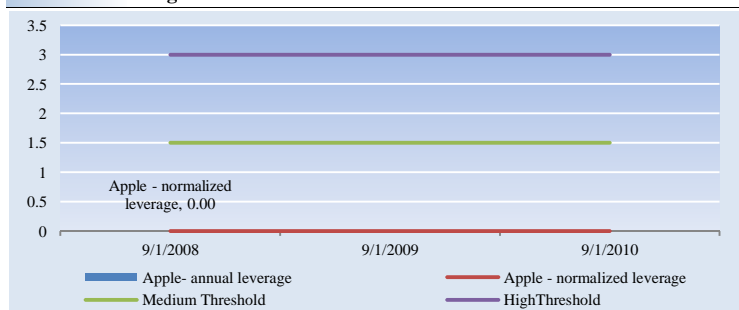
### Free Cash Flow (CFO-capital expenditures)

	Last Fiscal Year FCF	3-year Historical CAGR	5-year Projected CAGR
<b>Apple</b>	USD 16,474	54.3%	18.5%
Dell	USD 3,525	4.2%	-0.2%
Hewlett-Packard	USD 7,789	5.8%	7.7%
IBM	USD 14,795	11.8%	5.0%
Research in Motion	USD 2,851	43.8%	-5.5%
Peer Median		8.8%	2.4%
Industry Median		11.8%	5.0%

Apple's free cash flow expansion has been greater than that of both its peer group and industry group during the past three years. We expect the firm's free cash flow expansion to outpace its peer group and industry group during the next five years. Apple sports the highest expected free cash flow growth rate among peers.

### Financial Leverage

**LOW**

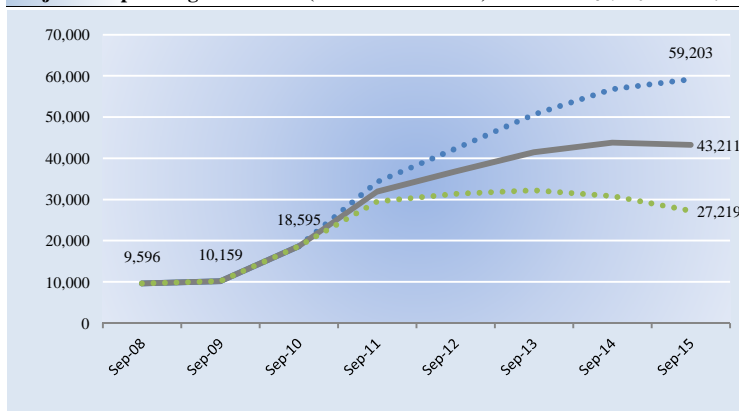


The bars above show the firm's annual debt-to-EBITDA. The red line shows the firm's normalized measure.

Firms that exhibit high leverage tend to be more risky than firms with relatively low debt loads, all else equal. We measure financial leverage by taking a firm's current total debt load and dividing it by the firm's trailing average 3-year annual EBITDA. Firms that are over 3 for this metric, we rate as having high leverage. Companies that have less than 1.5 turns of leverage (or a measure below 1.5), we rate as having low leverage. Apple's normalized debt-to-EBITDA measure of about 0 puts it in the **LOW** camp.

### Projected Operating Cash Flow (in millions of USD)

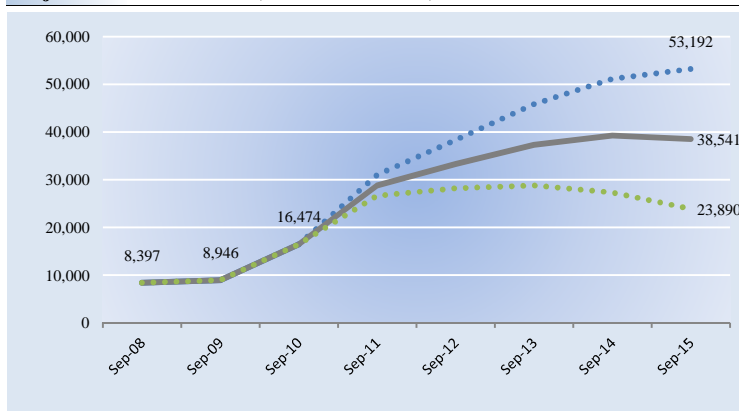
Source: Company Filings, Valuentum Projections



In the chart above, we show our baseline forecast for CFO as well as potential upside and downside cases.

### Projected Free Cash Flow (in millions of USD)

Source: Company Filings, Valuentum Projections



In the chart above, we show our baseline forecast for free cash flow as well as potential upside and downside cases.

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**7**

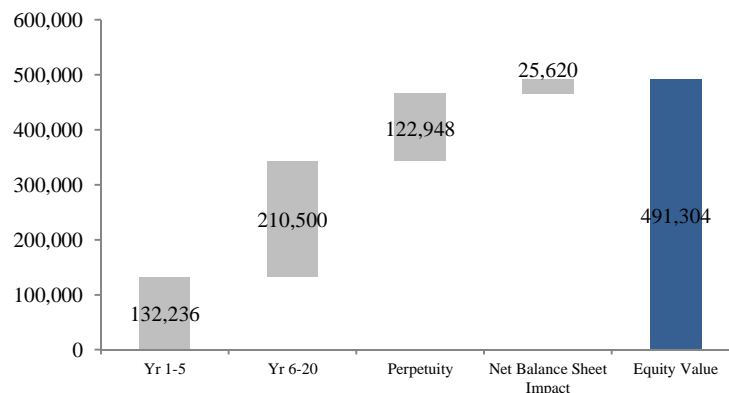
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MEGA-CAP BLEND**Sector**  
Information Technology**Industry**  
Computers & Peripherals - hardware**Valuation Analysis****Valuation Assumptions**

In Millions of USD (except for per share items)

	<u>5-year Projections</u>	
Revenue CAGR %	22.2%	
Avg. EBIT Margin %	35.4%	
Avg. Cash Tax Rate %	35.0%	
Earnings Before Interest CAGR %	25.0%	
Earnings Per Share CAGR %	21.1%	
Free Cash Flow to the Firm CAGR %	23.7%	
Earnings before interest = Net operating profits less adjusted taxes		
	<u>Long-term Projections</u>	
Phase II --> III FCFE CAGR %	2.2% (II)	3% (III)
Cost of Equity %	9.8%	
After-tax Cost of Debt %	NA	
Discount Rate (WACC) %	9.8%	
Synthetic credit spread = 0.46%		
	<u>Results</u>	
Phase I Present Value	132,236	
Phase II Present Value	210,500	
Phase III Present Value	122,948	
Total Firm Value	465,684	
Net Balance Sheet Impact	25,620	
Total Equity Value	491,304	
Diluted Shares Outstanding	924.7	
Fair Value per Share	\$531.00	

**Valuation Breakdown**

In the chart below, we show the build up to our estimate of total enterprise value for Apple and the break down to the firm's total equity value, which we estimate to be about 491.3USD billion. The present value of the enterprise free cash flows generated during each phase of our model and the net balance sheet impact is displayed. We divide total equity value by diluted shares outstanding to arrive at our \$531 per share fair value estimate.



In Millions of USD

**DCF Valuation Summary**

Our discounted cash flow model indicates that Apple's shares are worth between \$398.00 - \$664.00 each. The margin of safety around our fair value estimate is driven by the firm's MEDIUM ValueRisk™ rating, which is derived from the historical volatility of key valuation drivers. The estimated fair value of \$531 per share represents a price-to-earnings (P/E) ratio of about 35 times last year's earnings and an implied EV/EBITDA multiple of about 24 times last year's EBITDA. Our model reflects a compound annual revenue growth rate of 22.2% during the next five years, a pace that is lower than the firm's 3-year historical compound annual growth rate of 39.5%. Our model reflects a 5-year projected average operating margin of 35.4%, which is above Apple's trailing 3-year average. Beyond year 5, our valuation model assumes free cash flow will grow at an annual rate of 2.2% for the next 15 years and 3% in perpetuity. For Apple, our model uses a 9.8% weighted average cost of capital to discount future free cash flows.

Source: Company Filings, Valuentum Projections

**Company Metrics versus Peer and Industry Medians**

Company Name	Valuentum Buying Index™	Forward Price-to-Earnings	P/E on Est. Normal Diluted EPS	Price/Earnings-to-Growth (PEG), 5-year	Forward EV/EBITDA	EV/Est. Normal EBITDA	5-year Forward Earnings per Share CAGR	3-year Hist Avg ROIC, without goodwill	Dividend Yield %	Stock Price / Fair Value Estimate
<b>Apple</b>	<b>7</b>	<b>13.2</b>	<b>10.4</b>	<b>1.2</b>	<b>7.6</b>	<b>5.8</b>	<b>21.1%</b>	<b>240.2%</b>	<b>0.0%</b>	<b>70.4%</b>
Dell	3	7.2	7.6	1.9	3.1	3.4	5.7%	Negative IC	0.0%	61.9%
Hewlett-Packard	6	5.1	5.3	1.7	3.4	3.6	3.8%	57.7%	1.3%	55.3%
IBM	3	12.4	10.9	1.9	8.2	7.5	7.6%	50.6%	1.5%	88.8%
Research in Motion	6	6.0	5.8	NMF	2.8	2.9	-3.7%	74.5%	0.0%	77.2%
Peer Median	4.5	6.6	6.7	1.9	3.3	3.5	4.7%	57.7%	0.7%	69.6%
Industry Median	6.0	7.2	7.6	1.8	3.4	3.6	5.7%	66.1%	0.0%	70.4%

View back of report for a full list of industry constituents covered by Valuentum. VBI: Valuentum's ranking for the attractiveness of this investment at the date of the report.

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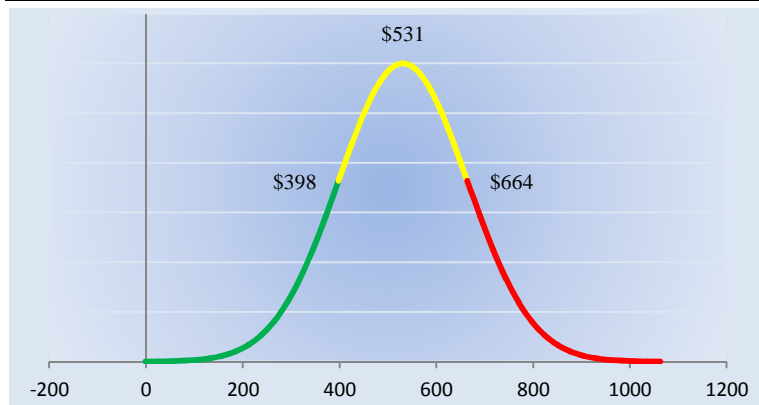
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## Margin of Safety Analysis

### Range of Potential Outcomes



Our discounted cash flow process values each firm on the basis of the present value of all future free cash flows. Although we estimate the firm's fair value at about \$531 per share, every company has a range of probable fair values that's created by the uncertainty of key valuation drivers (like future revenue or earnings, for example). After all, if the future was known with certainty, we wouldn't see much volatility in the markets as stocks would trade precisely at their known fair values. Our ValueRisk™ rating sets the margin of safety or the fair value range we assign to each stock. In the graph above, we show this probable range of fair values for Apple. We think the firm is attractive below \$398 per share (the green line), but quite expensive above \$664 per share (the red line). The prices that fall along the yellow line, which includes our fair value estimate, represent a reasonable valuation for the firm, in our opinion.

### ValueRisk™

**MEDIUM**

Apple receives a ValueRisk™ rating of MEDIUM based of the historical volatility of key drivers of economic value creation. The fair value range sets the margin of safety around our fair value estimate of the firm's shares.

Revenue Volatility	27.3%
Gross Margin Volatility	30.1%
Earnings (EBI) Volatility	33.8%
Cash Flow (FCFF) Volatility	40.9%
Fair Value Range	25.0%

The Fair Value Range sets the premium or discount on our estimate of the firm's fair value.

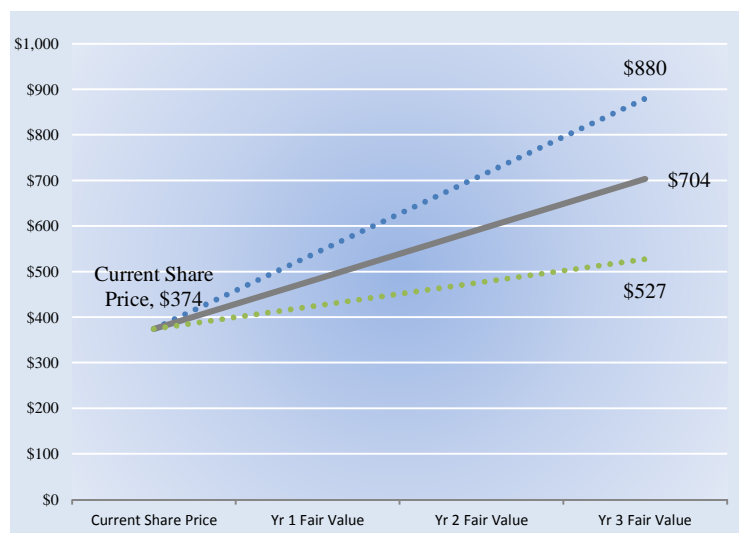
### Upside and Downside Probabilities

Probability (fair value < \$0)	Less than 0.1%
Probability (fair value > 2x current share price)	5.13%

We strive to answer a few questions that investors often ask: 1) What are the chances of a total loss of investment in this company? and 2) What is the chance that the company is really worth twice what I paid for it? The probability (fair value < 0) strives to answer the first question. It indicates the chance that the firm may encounter insolvency based on the characteristics of its cash flow stream, capital structure, and risk profile. The probability (fair value > 2x current share price) strives to answer the second question. It is our best estimate of whether investors are participating in a half-off sale by buying the company's shares at current prices.

### Future Path of Fair Value

We estimate Apple's fair value at this point in time to be about \$531 per share. As time passes, however, companies generate cash flow and pay out cash to shareholders in the form of dividends. The chart to the right compares the firm's current share price with the path of Apple's expected equity value per share over the next three years, assuming our long-term projections prove accurate. The range between the resulting downside fair value and upside fair value in Year 3 represents our best estimate of the value of the firm's shares three years hence. This range of potential outcomes is also subject to change over time, should our views on the firm's future cash flow potential change. The expected fair value of \$704 per share in Year 3 represents our existing fair value per share of \$531 increased at an annual rate of the firm's cost of equity less its dividend yield. The upside and downside ranges are derived in the same way, but from the upper and lower bounds of our fair value estimate range.



The graph above shows the expected future fair value of the firm's shares relative to its current stock price.

# Apple AAPL UNDERVALUED 6.4%

**Buying Index™** 7

**Value Rating**

**Last Close** \$374.05  
**Estimated Fair Value** \$531.00  
**Fair Value Range** \$398.00 - \$664.00

**Investment Style**  
MEGA-CAP BLEND

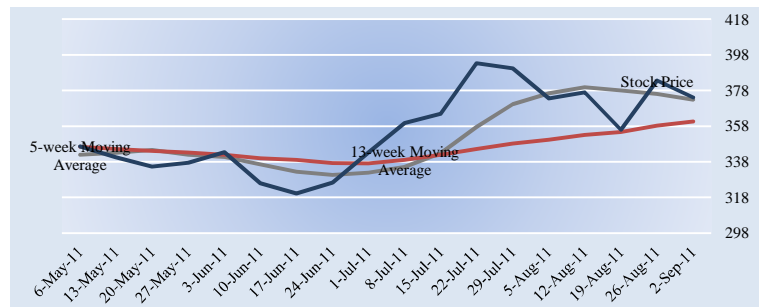
**Sector**  
Information Technology

**Industry**  
Computers & Peripherals - hardware

## Technical Analysis

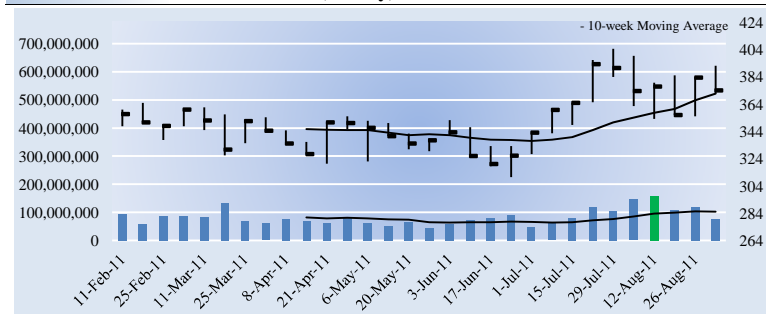
### Technical Evaluation

**BULLISH**



The firm's near-term moving average (5-week, grey line) and medium-term moving average (13-week, red line) are shown in the chart above. Typically, when a shorter-term moving average crosses a medium- or longer-term moving average from below, it represents a bullish signal. If the short-term moving average crosses from above, traders often view this as bearish. Apple's 5-week moving average resides above its 13-week measure, indicating a BULLISH trend. We'd grow wary of the firm's technicals should its 5-week moving average drop below its 13-week moving average, as the firm's 30-week uptrend could be threatened if this occurs.

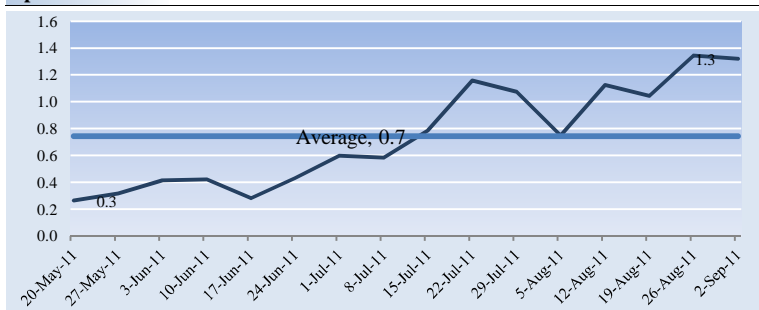
### 30-week Price and Volume Chart (weekly)



In the chart above, we pinpoint the heaviest accumulation or distribution week of the firm, determined by the week with the highest trading volume during the past 30 weeks. A heavy accumulation (buying) or distribution (selling) week often determines the future near-term direction of the firm's share price, as money managers continue to move in or out of the stock in the days and weeks ahead driving the stock up or down, respectively. For Apple, the week with the highest trading volume out of the last 30 weeks was a week of heavy buying, or accumulation (green bar). Such market activity could indicate a reversal of a downtrend or further confirmation of the firm's uptrend.

### Upside/Downside Volume

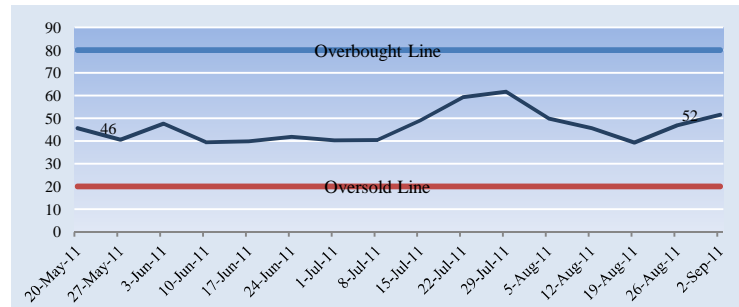
**BULLISH**



The level and trend of the Upside/Downside (U/D) volume ratio reveals whether institutional participation has been bullish or bearish as of late. Apple's U/D volume ratio of 1.3 is not only greater than 1 but also is better than its trailing average, indicating BULLISH institutional interest during the past several weeks.

### Money Flow Index (MFI)

**NEUTRAL**



The Money Flow Index (MFI) is an oscillator that uses price and volume to measure buying and selling pressure. Chartists often look for overbought (above 80) and oversold (below 20) levels to warn of unsustainable near-term price extremes. Apple's MFI of 52 is neutral, suggesting the firm's stock is neither overbought nor oversold at this time. However, a score over 50 tends to favor bulls. The MFI can also be used to gauge the strength or weakness of a firm's price trend. In Apple's case, its stock price and money flow neither reveals a bullish nor bearish divergence, further supporting our neutral view on its money flow action.

### Relative Price Strength

**STRONG**

A firm's relative price strength can be assessed over any number of time horizons. We show the firm's performance over the past 5 weeks, 13 weeks, and 30 weeks below. In arriving at our relative strength rating for each company, we assess the past 13 weeks, which includes the market's reaction to the firm's most recently reported quarter, where applicable, and other more recent economic events. During the past 13 weeks, Apple's shares returned 8.1%, while the market benchmark returned -9.4%. We think Apple's 13-week relative price performance is STRONG.

5-week Company Performance	-6.0%
5-week Market Benchmark Performance	-9.9%
5-week Relative Performance vs. Market Benchmark	4.0%
13-week Company Performance	8.1%
13-week Market Benchmark Performance	-9.4%
<b>13-week Relative Performance vs. Market Benchmark</b>	<b>17.5%</b>
30-week Company Performance	7.5%
30-week Market Benchmark Performance	-10.3%
30-week Relative Performance vs. Market Benchmark	17.9%

### Timeliness Matrix™

Equity Valuation

Relative Strength	Overvalued	Fairly Valued	Undervalued
Strong			
Neutral			
Weak			

Firms that are undervalued and currently showing near-term pricing strength score near the top right of the matrix.

Companies that are undervalued and showing near-term relative price strength could represent timely buys, as the stock may be attractive to both value and momentum investors. Apple currently is exhibiting relative price strength, while sporting an attractive valuation based on our DCF process. The stock could continue to outperform.

**Apple AAPL UNDERVALUED 6.4%**

**Buying Index™ 7**

**Value Rating** 
**Last Close**  
\$374.05**Estimated Fair Value**  
\$531.00**Fair Value Range**  
\$398.00 - \$664.00**Investment Style**  
MEGA-CAP BLEND**Sector**  
Information Technology**Industry**  
Computers & Peripherals - hardware**Pro Forma Income Statement**

	----- Historical -----			----- Projected -----	
In Millions of USD (except for per share items)	Sep-08	Sep-09	Sep-10	Sep-11	Sep-12
Total Revenue	32,479	42,905	65,225	109,121	134,656
Cost of Goods Sold	21,334	25,683	39,541	57,929	72,259
Selling, General and Administrative Expenses	3,761	4,149	5,517	8,083	10,082
Other Operating Expenses	1,109	1,333	1,782	2,611	3,256
<b>Operating Income</b>	<b>6,275</b>	<b>11,740</b>	<b>18,385</b>	<b>40,499</b>	<b>49,059</b>
Unusual items	0	0	0	0	0
Operating Income, including unusual items	6,275	11,740	18,385	40,499	49,059
Interest Expense	0	0	0	0	0
Other Non-operating Income	620	326	155	311	311
<b>Pre-tax Income</b>	<b>6,895</b>	<b>12,066</b>	<b>18,540</b>	<b>40,810</b>	<b>49,370</b>
Income Taxes	2,061	3,831	4,527	14,283	17,279
<b>Income after tax</b>	<b>4,834</b>	<b>8,235</b>	<b>14,013</b>	<b>26,526</b>	<b>32,090</b>
Minority Interest and Equity Income	0	0	0	0	0
Net Income, excluding extra items	4,834	8,235	14,013	26,526	32,090
<b>Income Available to Common, excluding extra items</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>26,526</b>	<b>32,090</b>
<b>Diluted Earnings per Share, excluding extra items</b>	<b>5.36</b>	<b>9.08</b>	<b>15.15</b>	<b>28.31</b>	<b>33.81</b>
Diluted Weighted Shares Outstanding	902.1	907.0	924.7	936.8	949.1

Source: Company Filings, Xignite, Valuentum Projections



**Apple AAPL UNDERVALUED 6.4%****ALUENTUM**  
**Buying Index™ 7****ALUENTUM**  
**Value Rating** **Last Close**  
\$374.05**Estimated Fair Value**  
\$531.00**Fair Value Range**  
\$398.00 - \$664.00**Investment Style**  
MEGA-CAP BLEND**Sector**  
Information Technology**Industry**  
Computers & Peripherals - hardware**Pro Forma Balance Sheet**

----- Historical -----

----- Projected -----

In Millions of USD (except for per share items)

	Sep-08	Sep-09	Sep-10	Sep-11	Sep-12
<b>Assets</b>					
Total Cash (including marketable securities)	24,490	23,464	25,620	58,964	96,831
Inventory	509	455	1,051	1,516	1,862
Accounts Receivable	4,704	5,057	9,924	16,532	20,313
Other Current Assets	4,987	2,579	5,083	5,083	5,083
<b>Total Current Assets</b>	<b>34,690</b>	<b>31,555</b>	<b>41,678</b>	<b>82,096</b>	<b>124,089</b>
Gross Fixed Assets (Plant, Prop. & Equip.)	3,747	4,667	7,234	10,311	13,871
(Accumulated Depreciation)	(1,292)	(1,713)	(2,466)	(4,184)	(6,304)
Net Property, Plant, and Equipment	2,455	2,954	4,768	6,127	7,567
Goodwill, Net	207	206	741	741	741
Intangibles, Net	285	247	342	342	342
Other Long-term Assets	1,935	12,539	27,654	27,654	27,654
<b>Total Assets</b>	<b>39,572</b>	<b>47,501</b>	<b>75,183</b>	<b>116,960</b>	<b>160,392</b>
<b>Liabilities</b>					
Accounts Payable	5,520	5,601	12,015	17,567	21,622
Other Current Liabilities	8,572	5,905	8,707	13,441	15,691
Current Portion of Long-term Debt	0	0	0	0	0
<b>Total Current Liabilities</b>	<b>14,092</b>	<b>11,506</b>	<b>20,722</b>	<b>31,007</b>	<b>37,312</b>
Long-term Debt	0	0	0	0	0
Other Long-term Liabilities	4,450	4,355	6,670	6,670	6,670
<b>Total Liabilities</b>	<b>18,542</b>	<b>15,861</b>	<b>27,392</b>	<b>37,677</b>	<b>43,982</b>
Preferred Stock	0	0	0	0	0
<b>Shareholders' Equity</b>					
Common Stock and Additional Paid in Capital	7,177	8,210	10,668	15,206	19,804
Retained Earnings	13,845	23,353	37,169	63,695	95,786
Other Equity	8	77	(46)	381	820
<b>Total Shareholders' Equity</b>	<b>21,030</b>	<b>31,640</b>	<b>47,791</b>	<b>79,283</b>	<b>116,410</b>
<b>Total Liabilities and Shareholders' Equity</b>	<b>39,572</b>	<b>47,501</b>	<b>75,183</b>	<b>116,960</b>	<b>160,392</b>

Source: Company Filings, Xignite, Valuentum Projections

**Apple AAPL UNDERVALUED 6.4%****Valuentum**  
**Buying Index™ 7****Valuentum**  
**Value Rating** **Last Close**  
\$374.05**Estimated Fair Value**  
\$531.00**Fair Value Range**  
\$398.00 - \$664.00**Investment Style**  
MEGA-CAP BLEND**Sector**  
Information Technology**Industry**  
Computers & Peripherals - hardware**Pro Forma Cash Flow Statement**

----- Historical -----

----- Projected -----

In Millions of USD (except for per share items)

	Sep-08	Sep-09	Sep-10	Sep-11	Sep-12
<b>Cash from Operations</b>					
Net Income	4,834	8,235	14,013	26,526	32,090
Depreciation and Amortization	473	734	1,027	1,718	2,120
Deferred Income Taxes	(368)	1,040	1,440	0	0
Operating (Gains) Losses	538	736	903	427	440
Changes in Working Capital	4,119	(586)	1,212	3,212	2,178
<b>Cash Flow from Operations</b>	<b>9,596</b>	<b>10,159</b>	<b>18,595</b>	<b>31,884</b>	<b>36,828</b>
<b>Cash from Investing</b>					
Purchase of Property, Plant, Equipment	(1,199)	(1,213)	(2,121)	(3,077)	(3,560)
Other Investing Cash Flows	(6,990)	(16,221)	(11,733)	0	0
<b>Cash Flow from Investing</b>	<b>(8,189)</b>	<b>(17,434)</b>	<b>(13,854)</b>	<b>(3,077)</b>	<b>(3,560)</b>
<b>Cash from Financing</b>					
Issuance (Retirement) of Stock	359	475	912	4,538	4,598
Issuance (Retirement) of Debt	0	0	0	0	0
Dividends Paid	0	0	0	0	0
Other Financing Cash Flows	757	188	345	0	0
<b>Cash Flow from Financing</b>	<b>1,116</b>	<b>663</b>	<b>1,257</b>	<b>4,538</b>	<b>4,598</b>
Foreign Exchange	0	0	0	0	0
<b>Net Change in Cash</b>	<b>2,523</b>	<b>(6,612)</b>	<b>5,998</b>	<b>33,344</b>	<b>37,866</b>

Source: Company Filings, Xignite, Valuentum Projections

# Apple AAPL UNDERVALUED 6.4%

**ALUENTUM**  
Buying Index™ 7

**ALUENTUM**  
Value Rating

Last Close  
\$374.05

Estimated Fair Value  
\$531.00

Fair Value Range  
\$398.00 - \$664.00

Investment Style  
MEGA-CAP BLEND

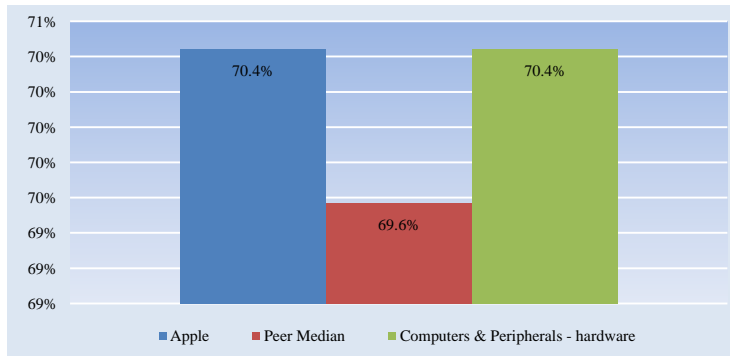
Sector  
Information Technology

Industry  
Computers & Peripherals - hardware

## Computers & Peripherals - hardware

### Computers & Peripherals - hardware UNDERVALUED

We think the Computers & Peripherals - hardware industry is undervalued at this time. The industry market cap is trading below 80% of our estimate of its fair value based on our DCF process, a hefty discount. Although we use a firm-specific ValueRisk™ measure to determine whether a firm is undervalued or overvalued based on our DCF process, we consider an industry to be undervalued if it is trading below 80% of our estimate of its fair value and overvalued if it is trading at over 120% of our estimate of its fair value. We think these fair value ranges are appropriate given the diversification benefits of holding a basket of stocks. That said, we'd take look closer at the Computers & Peripherals - hardware industry for more investment ideas based on the industry's attractive valuation.



The above bar chart reveals the price/fair value of the company, its peers, and the industry as a whole.

Companies below are sorted alphabetically. Shaded blue denotes that the firm has earned the highest rating for that respective category.

Company Name	Ticker	Market Cap (USD-mil)	Investment Style	DCF Valuation	Relative Valuation	ValueCreation™	ValueRisk™	ValueTrend™	Technicals	Relative Strength
Apple	AAPL	345,888	MEGA-CAP BLEND	UNDERVALUED	NEUTRAL	EXCELLENT	MEDIUM	POSITIVE	BULLISH	STRONG
Dell	DELL	27,839	LARGE-CAP VALUE	UNDERVALUED	NEUTRAL	GOOD	MEDIUM	POSITIVE	BEARISH	NEUTRAL
Hewlett-Packard	HPQ	57,734	LARGE-CAP VALUE	UNDERVALUED	ATTRACTIVE	EXCELLENT	HIGH	POSITIVE	BEARISH	WEAK
IBM	IBM	214,963	MEGA-CAP VALUE	FAIRLY VALUED	UNATTRACTIVE	EXCELLENT	LOW	POSITIVE	BEARISH	STRONG
Research in Motion	RIMM	16,214	LARGE-CAP VALUE	FAIRLY VALUED	NEUTRAL	EXCELLENT	HIGH	NEGATIVE	VERY BULLISH	WEAK

# Valuentum's Full Page Stock Report

**A DCF Valuation**  
Shows whether the firm is undervalued, fairly valued, or overvalued based on our DCF process and by how much.

**B Valuentum Buying Index (VBI)**  
Provides insight into the timeliness of an investment opportunity. We rank firms from 1 to 10 based on rigorous financial, valuation, and technical analysis. A 10 represents one of our top picks.

VBI Score	Action
10	Top Pick
9	We'd Buy
6 to 8	Constructive
4 to 6	Less Exciting
1 to 3	We'd Pass

**C Valuentum Value Rating (VVR)**  
Indicates whether we think a firm is undervalued, fairly valued, or overvalued on the basis of our DCF process.



**D Investment Considerations**  
Evaluates firms on 12 different measures, from the firm's growth and cash flow generation to the stock's money flow index and upside/downside volume. We reveal technical support and resistance levels.

**E 30-week Price and Volume Action**  
Displays the last accumulation or distribution week of the stock and historical price and volume action.

Valuentum Retail Equity Research Visit us at [www.valuentum.com](http://www.valuentum.com) (10-bar) Data as of 29-Jul-2011

**United Technologies UTX OVERVALUED** **Buying Index™** **Value Rating**

Last Close \$82.84 Estimated Fair Value \$66.00 Fair Value Range \$53.00 - \$79.00 Investment Style LARGE-CAP CORE Sector Industrials Industry Conglomerates

**Despite United Technologies's solid business performance, we think there may be a better time to initiate a position in its shares based on valuation.**

**Stock Chart (weekly)**

**Investment Considerations**

DCF Valuation	OVERVALUED
Relative Valuation	UNATTRACTIVE
ValueCreation™	EXCELLENT
ValueRisk™	LOW
ValueTrend™	NEGATIVE
Cash Flow Generation	STRONG
Financial Leverage	LOW
Growth	MODEST
Technical Evaluation	VERY BEARISH
Relative Strength	NEUTRAL
Money Flow Index (MFI)	NEUTRAL
Upside/Downside Volume (U/D)	BEARISH

Near-term Technical Resistance, 10-wk MA **\$6.00**  
DCF = Discounted Cash Flow; MFI, U/D = Please see glossary; MA = Moving Average

**Business Quality**

ValueRisk™	Very Poor	Poor	Good	Excellent
Low				
Medium				
High				
Very High				

**Company Vitals**

Market Cap (USD)	\$76,436
Avg Weekly Vol (30 wks)	18,719
30-week Range (USD)	77.05 - 91.83
Valuentum Sector	Industrials
5-week Return	-1.4%
13-week Return	-8.0%
30-week Return	4.6%
Dividend Yield %	2.1%
Dividends per Share	1.70
Forward Dividend Payout Ratio	8%
Est. Normal Diluted EPS	6.59
P/E on Est. Normal Diluted EPS	12.6
Est. Normal EBITDA	10,620
Forward EV/EBITDA	8.7
EV/Est. Normal EBITDA	7.8
Forward Revenue Growth (5-yr)	5.4%
Forward EPS Growth (5-yr)	9.2%

**Investment Highlights**

- United Technologies's business quality (an evaluation of our ValueCreation™ and ValueRisk™ ratings) ranks among the best of the firms in our coverage universe. The firm has been generating economic value for shareholders with relatively stable operating results for the past 3 years, a combination we view very positively.
- Although we don't think the firm's valuation indicates an attractive investment opportunity at this time, we'd take a closer look if the firm's share price fell below \$53. The market seems to be pricing greater long-term revenue growth and profit expansion than we think is achievable.
- United Technologies has an excellent combination of strong free cash flow generation and low financial leverage. We expect the firm's free cash flow margin to average about 8.4% in coming years. Total debt-to-EBITDA was 1.2 last year, while debt-to-book capitalization stood at 32.5%.

**Returns Summary**

Return on Equity	24.4%
Return on Assets	8.3%
ROIC, with goodwill	12.1%
ROIC, without goodwill	25.3%

**Leverage, Coverage, and Liquidity**

Total Debt	10,289
Net Debt	6,206
Total Debt/EBITDA	1.2
Net Debt/EBITDA	0.7
EBITDA/Interest	11.3
Current Ratio	1.3
Quick Ratio	0.7

**Relative Valuation**

Relative Valuation	Forward P/E	PEG	Price / FV
3M	13.8	1.9	106.3%
Danaher	17.2	1.8	96.3%
Honeywell	13.3	1.5	81.7%
Tyco Int'l	14.2	1.7	82.0%
Peer Median	14.0	1.8	89.2%
United Technologies	15.0	1.9	125.5%

**Financial Summary**

Revenue	Fiscal Year End:		
	Dec-09	Dec-10	Dec-11
Revenue	52,425	54,326	58,726
Revenue, YoY%	-10.7%	3.6%	8.1%
Operating Income	5,970	7,142	8,006
Operating Margin %	11.4%	13.1%	13.6%
Net Income	3,829	4,373	4,996
Net Income Margin %	7.3%	8.0%	8.5%
Diluted EPS	4.12	4.74	5.52
Diluted EPS, YoY %	-15.9%	15.0%	16.6%
Free Cash Flow (CFO-capex)	4,527	5,041	4,947
Free Cash Flow Margin %	8.6%	9.3%	8.4%

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**H Business Quality**  
Summary of the firm's ability to create value for shareholders compared with the underlying risk of its operations.

**J Investment Highlights**  
Our opinion of the company, including analysis of its financial and technical strengths and weaknesses.

**K Relative Valuation**  
Comparison of the firm's PE, PEG, and Price/FV ratios versus peers.

**N Financial Summary**  
A summary of the proforma financial statements found in the extended report.

**G Company Vitals**  
Shows sector, industry and other relevant company information.

**I Normalized EPS and EBITDA**  
Estimation of the firm's normalized earnings measures and the corresponding valuation multiples.

**L Returns Summary**  
3-year averages of the firm's key return measures, including return on invested capital, with and without goodwill.

**M Leverage, Coverage, and Liquidity**  
A snapshot of the company's financial health.

## About Valuentum

@ Valuentum, we strive to stand out from the crowd.

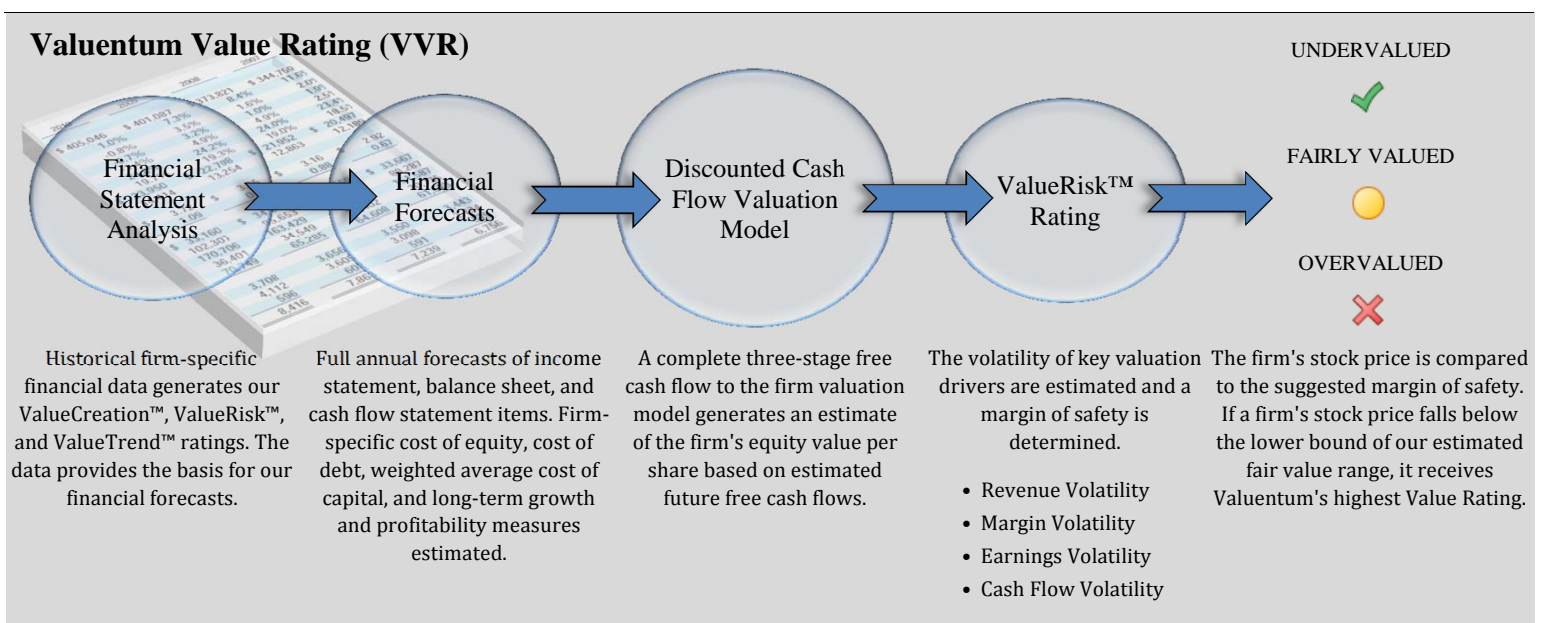
Most investment research firms fall into a few camps, whether it be value, growth, income, momentum, chartist or some variant of the aforementioned. We think each in its own right holds merit, but we think the combination of these approaches is even more powerful. After all, stock price movements aren't just driven by investors of the value or growth variety, but by all market participants. Therefore, **we look at stocks from a variety of investment perspectives in order to better understand and capitalize on opportunities.** We want to arm our clients with relevant, actionable information.

Although **the breadth of our analysis is unmatched in the industry**, the core of our process is grounded in rigorous discounted cash flow analysis and incorporates the concept of a margin of safety. We offer a fair value estimate for each company and opine on the valuation of a company based on this DCF process, but we also provide a relative valuation assessment in the context of the firm's industry and peers. A cross section of our ValueCreation™ and ValueRisk™ ratings provides a financial assessment of a company's business quality, while our ValueTrend™ rating offers insight into the trajectory of a firm's economic profit creation.

Our analysis doesn't stop there. We offer a technical evaluation of the firm as well as other momentum indicators. We not only want to reveal to investors which firms are undervalued, but we also want to arm investors with the information to anticipate entry and exit points. Most research firms focus on arriving at a target price or fair value estimate, but fall short of providing a technical assessment to bolster buy and sell disciplines. **We go the distance and provide investors with answers--not half the story.**

An explanation of our approach would not be complete if we didn't describe our ideal stock investment. We're looking for companies that are undervalued--both on a DCF basis and versus peers--have strong growth potential, have a solid track record of creating economic profits for shareholders with reasonable risk, are strong cash flow generators, have manageable financial leverage, and are currently showing bullish technical and momentum indicators.

Can such stock investments exist? **Subscribe to Valuentum to receive our best investment ideas and analysis on over 1,000 companies.**



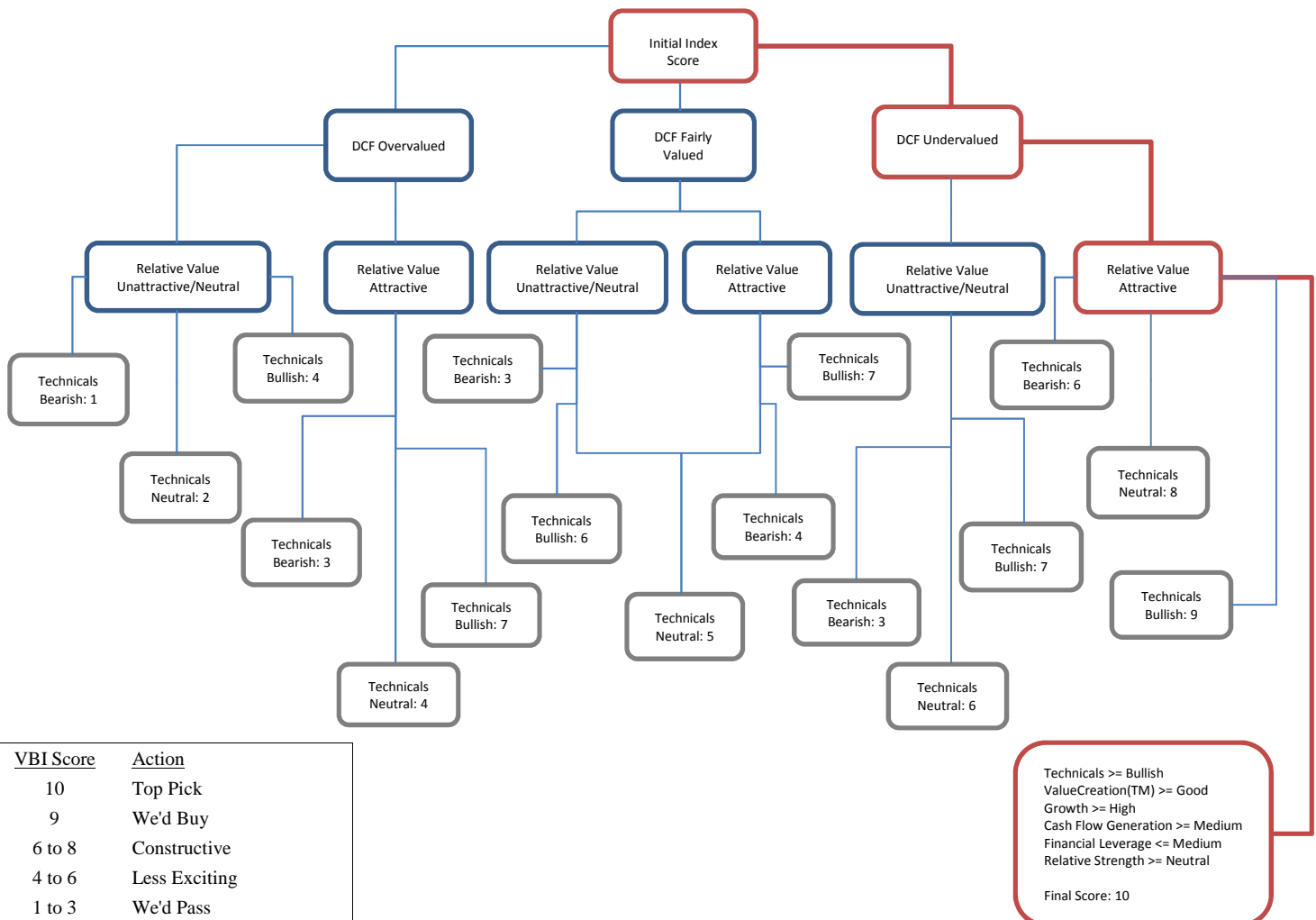
# Methodology for Picking Stocks - Valuentum Buying Index™ (VBI)

@ Valuentum, we like to look at stocks from a number of different perspectives to identify the most attractive investments at any given time. The Valuentum Buying Index (VBI) combines rigorous financial and valuation analysis with an evaluation of a firm's technicals to derive a score between 1 and 10 for each company. **The VBI places considerable emphasis on a firm's DCF valuation, its relative valuation versus peers (both forward PE and PEG ratios), as well as its technicals in order to help investors pick the best entry and exit points on the most interesting stocks.**

Let's follow the red line on the flow chart below to see how a firm can score a 10, the best mark on our index (a "Top Pick"). First, the company would need to be 'undervalued' on a DCF basis and 'attractive' on a relative

value basis. The stock would also have to be exhibiting 'bullish' technicals. The firm would need a ValueCreation™ rating of 'good' or 'excellent', exhibit 'high' or 'aggressive' growth prospects, and generate at least a 'medium' or 'neutral' assessment for cash flow generation, financial leverage, and relative price strength.

**This is a tall order for any company, but we're looking to deliver the very best of ideas to our clients and subscribers.** Firms that don't make the cut for a 10 are ranked accordingly, with the least attractive stocks garnering a score of 1 ("We'd sell"). Most of our coverage universe falls between 3 and 7, but at any given time there could be large number of companies garnering either high or low scores, especially at market lows or tops, respectively.



# Glossary

**Estimated Fair Value.** This measure is an output of our DCF valuation model and represents our opinion of the fair equity value per share of the company. We would expect a firm's stock price to converge to this value within the next 3 years.

**Fair Value Range.** The fair value range represents an upper bound and lower bound, between which we would consider the firm to be fairly valued. The range considers our estimate of the firm's fair value and the margin of safety suggested by the volatility of key valuation drivers, including revenue, gross margin, earnings before interest, and enterprise free cash flow (the determinants behind our ValueRisk™ rating).

**DCF Valuation.** We opine on the firm's valuation based on our DCF process. Firms that are trading with an appropriate discount to our fair value estimate receive an UNDERVALUED rating. Firms that are trading within our fair value range receive a FAIRLY VALUED rating, while firms that are trading above the upper bound of our fair value range receive an OVERVALUED rating.

**Relative Value.** We compare the firm's forward price-to earnings (PE) ratio and its price/earnings-to-growth (PEG) ratio to that of its peers. If both measures fall below the peer median, the firm receives an ATTRACTIVE rating. If both are above the peer median, the firm receives an UNATTRACTIVE rating. Any other combination results in a NEUTRAL rating.

**ValueCreation™.** This is a proprietary Valuentum measure. ValueCreation™ indicates the firm's historical track record in creating economic value for shareholders, taking the average difference between ROIC (without goodwill) and the firm's estimated WACC during the past three years. The firm's performance is measured along the scale of EXCELLENT, GOOD, POOR, and VERY POOR. Those firms with EXCELLENT ratings have a demonstrated track record of creating economic value, while those that register a VERY POOR mark have been destroying economic value.

**ValueRisk™.** This is a proprietary Valuentum measure. ValueRisk™ indicates the historical volatility of key valuation drivers, including revenue, gross margin, earnings before interest, and enterprise free cash flow. The standard deviation of each measure is calculated and scaled against last year's measure to arrive at a percentage deviation for each item. These percentage deviations are weighted equally to arrive at the corresponding fair value range for each stock, measured in percentage terms. The firm's performance is measured along the scale of LOW, MEDIUM, HIGH, and VERY HIGH. The ValueRisk™ rating for each firm also determines the fundamental beta of each firm along the following scale: LOW (0.85), MEDIUM (1), HIGH (1.15), VERY HIGH (1.3).

**ValueTrend™.** This is a proprietary Valuentum measure. ValueTrend™ indicates the trajectory of the firm's return on invested capital (ROIC). Firms that earned an ROIC last year that was greater than the 3-year average of the measure earn a POSITIVE rating. Firms that earned an ROIC last year that was less than the 3-year average of the measure earn a NEGATIVE rating.

**Cash Flow Generation.** Firms' cash flow generation capacity are measured along the scale of STRONG, MEDIUM, and WEAK. A firm with a 3-year historical free cash flow margin (free cash flow divided by sales) greater than 5% receives a STRONG rating, while firms earning less than 1% of sales as free cash flow receive a WEAK rating.

**Financial Leverage.** Based on the firm's normalized debt-to-EBITDA metric, we rank firms on the following scale: LOW, MEDIUM, and HIGH. Companies with a normalized debt-to-EBITDA ratio below 1.5 receive a LOW score, while those with a measure above 3 receive a HIGH score.

**Upside/Downside Volume.** Heavy volume on up days and lower volume on down days suggests that institutions are heavily participating in a stock's upward advance. We use the trailing 14-week average of upside and downside volume to calculate an informative ratio. We rank each firm's U/D volume ratio along the following scale: BULLISH, IMPROVING, DETERIORATING, and BEARISH.

**Investment Style.** Valuentum uses its own proprietary stock-classification system. Nano-cap: Less than \$50 million; Micro-cap: Between \$50 million and \$200 million; Small-cap: Between \$200 million and \$2 billion; Mid-cap: Between \$2 billion and \$10 billion; Large-cap: Between \$10 billion and \$200 billion; Mega-cap: Over \$200 billion. Blend: Firm's that we think are undervalued and exhibit high growth prospects (growth in excess of three times the rate of assumed inflation). Value: Firm's that we believe are undervalued, but do not exhibit high growth prospects. Growth: Firms that are not undervalued, in our opinion, but exhibit high growth prospects. Core: Firms that are neither undervalued nor exhibit high growth prospects.

**Company Vitals.** In this section, we list key financial information and the sector and industry that Valuentum assigns to the stock. The P/E-Growth (5-yr), or PEG ratio, divides the current share price by last year's earnings (EPS) and then divides that quotient by our estimate of the firm's 5-year EPS growth rate. The estimated normalized diluted EPS and estimated normalized EBITDA represent the five-year forward average of these measures used in our discounted cash flow model. The P/E on estimated normalized EPS divides the current share price by estimated normalized diluted EPS. The EV/estimated normalized EBITDA considers the current enterprise value of the company and divides it by estimated normalized EBITDA. EV is defined as the firm's market capitalization plus total debt, minority interest, preferred stock less cash and cash equivalents.

**Business Quality Matrix.** We compare the firm's ValueCreation™ and ValueRisk™ ratings. The box is an easy way for investors to quickly assess the business quality of a company. Firms that generate economic profits with little operating variability score near the top right of the matrix.

**Timeliness Matrix.** We compare the company's recent stock performance relative to the market benchmark with our assessment of its valuation. Firms that are experiencing near-term stock price outperformance and are undervalued by our estimate may represent timely buys.

**Range of Potential Outcomes.** The firm's margin of safety is shown in the graphic of a normal distribution. We consider a firm to be undervalued if its stock price falls along the green line and overvalued if the stock price falls along the red line. We consider the firm to be fairly valued if its stock price falls along the yellow line.

**Return on Invested Capital.** At Valuentum, we place considerable emphasis on return on invested capital (both with and without goodwill). The measure focuses on the return (earnings) the company is generating on its operating assets and is superior to return on equity and return on assets, which can be skewed by a firm's leverage or excess cash balance, respectively.

**Technical Evaluation.** We evaluate a firm's near-term and medium-term moving averages and money flow index (MFI) to assign each firm a rating along the following scale: VERY BULLISH, BULLISH, NEUTRAL, BEARISH, and VERY BEARISH.

**Stock Price Relative Strength.** We assess the performance of the company's stock during the past quarter, 13 weeks, relative to an ETF that mirrors the aggregate performance of constituents of the stock market. Firms are measured along the scale of STRONG, NEUTRAL, and WEAK. Companies that have outperformed the market index by more than 2.5% during this 13-week period receive a STRONG rating, while firms that trailed the market index by more than 2.5% during this 13-week period receive a WEAK rating.

**Money Flow Index (MFI).** The MFI is a technical indicator that measures buying and selling pressure based on both price and volume. Traders typically use this measure to identify potential reversals with overbought and oversold levels. We use a 14-week measure to rank firms along the following scale: EXTREMELY OVERBOUGHT (>90), OVERBOUGHT (80-90), NEUTRAL (20-80), OVERSOLD (10-20), EXTREMELY OVERSOLD (0-10).

## Disclosures, Disclaimers & Additional Sources

To send us feedback or if you have any questions, please contact us at [valuentum@valuentum.com](mailto:valuentum@valuentum.com). We're always looking for ways to better serve your investment needs and improve our research.

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