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Apple Inc. (AAPL-US)
Technology Hardware, Storage & Equipment

- We reiterate our Strong Buy rating on AAPL and believe significant upside still exists from current levels.
- AAPL will start selling iPhones in India this April.
- AAPL to launch a number of new products at the upcoming Worldwide Developer Conference (WWDC) in June.
- iPhone sales continue to set records.
- An all-new revolutionary iPhone 8 will mark the iPhone's 10th anniversary later this year.
- AAPL's ecosystem and innovative ability will continue to drive future growth.
- AAPL stands to be the biggest beneficiary of a repatriation tax holiday.
- AAPL is on our Research Focus List and is in our Focused Opportunity Portfolio.

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Company Update

Apple Inc. (AAPL-US)

Technology Hardware, Storage & Equipment

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Research Action:

Reiterate rating

 Rating:
 Strong Buy

 Prior Rating:
 Strong Buy

 Price 02/06/2017:
 \$130.29

 52 Week High /
 \$130.50

 Low:
 \$89.47

Key Data: (TTM as of Dec-16) **Excess Cash per Share:** \$44.39 Annual Dividend: \$2.28 **Dividend Yield:** 1.75% Ave. Volume (30 Day): 32.8M **Shares Outstanding:** 5,255.4M 5,248.3M Float: Equity MV: \$684,728.6M Sales TTM: \$217,481.0M Beta: 1.16 **EBITDAR:** \$85,243.7M NOPAT: \$46,904.4M **Total Invested Capital:** \$251.799.4M Return on Capital: 19.97% **Cost of Capital:** 7.12% **Economic Profit:** \$30,180.8M Market Value Added: \$527,149.6M **Current Operations Value:** \$675,604.6M

\$103,344.5M

Future Growth Value:

- We reiterate our Strong Buy rating on AAPL. AAPL's strong results on better-than-expected iPhone sales along with strong gross margins, especially in developing countries, together with significant growth in services continues to drive strong Business Performance. We believe the launch of new products this spring, along with increasing sales of content and apps on iTunes, together with the potential of a repatriation tax holiday, will continue to drive greater shareholder value. We still believe significant upside exists.
- AAPL will start selling iPhones in India this April. AAPL will begin production of iPhones in India starting at the end of April, for sale in that market. It is estimated that 750 million smart phones will be sold in India by 2020. This is a source of new phone growth for Apple. AAPL negotiated a 15 year tax holiday to import components and manufacturing equipment.
- AAPL to launch a number of new products at the upcoming Worldwide Developer Conference (WWDC) in June. We expect AAPL to introduce upgrades of the iPad, Mac and MacBook Pro. We also believe that Apple will introduce a home interface device that will compete with the Amazon Echo (AMZN-US, Buy rated) and Google Home (GOOGL-US, Strong Buy rated). While we were hoping for one to be introduced in December, we still believe that AAPL will introduce a home interface device, it will be launched this year and most likely introduced at their form for new product introductions the WWDC. We view a home interface device as the primary gateway to the connected home and an important interface that will further expand the AAPL ecosystem.
- iPhone sales continue to set records. The launch of the iPhone 7 in over 130 countries was the largest and fastest deployment of the new iPhones. In Q1 2017, iPhone sales increased 5% to a better than expected 78.4 million. Sales of new each new iPhone launched continues to sell better than its prior model. Concerns over the iPhone lacking a traditional headphone jack have shown to have no negative effect on phone sales. In addition the new AAPL wireless earbuds are selling extremely well. This continues to show the iPhone's ability to gain market share. The sale of each new phone continues to expand the participation in, and growth of, AAPL's ecosystem as more and more iPhone users consume more content and applications from iTunes as well as continuing to buy other Apple products.



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- An all-new revolutionary iPhone 8 will mark the iPhone's 10th anniversary later this year. Expectations of a totally new redesigned phone include an all glass body with a dual curved edge-to-edge OLED display, Touch ID sensor and wireless charging. Based on the average life of the phone contract of two years, even model number phones tend to have a larger installed base and greater participation in the upgrade cycle.
- AAPL's ecosystem and innovative ability will continue to drive future growth. We believe AAPL's future growth will be driven by adoption of the iPhone along with the expansion of Apple pay, Apple watch, Apple music, Apple TV, iTunes and the launch of new products in different areas such as health care records data and monitoring devices and what we believe will be a large presence in the connected home and the connected car.
- AAPL stands to be the biggest beneficiary of a repatriation tax holiday. AAPL currently has over \$236 billion in excess cash or \$44.39 per share which is the largest cash position of any company anywhere. A one-time tax holiday allowing the repatriation of that cash back the US would give AAPL significant cash to return to shareholders in the form of a one-time dividend or major stock buyback.
- AAPL is on our Research Focus List and is in our Focused Opportunity Portfolio. AAPL's significant return on capital of almost 20% and strong Business Performance will continue to drive increasing Economic Profit and greater shareholder value creation. Further, AAPL can still return significant cash to shareholders.



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Investment Thesis

AAPL remains an incredibly cheap stock relative to its economic earnings power, brand equity, loyal customer base, cash generation ability, incredibly strong balance sheet, ability to innovate to create new products and continue to expand its ecosystem. We believe AAPL's ongoing ability to grow the iPhone user base globally along with its ever expanding ecosystem, which will eventually include the connected home and connected car, together with its ability to continually return massive amounts of cash to shareholders and continue to drive greater shareholder value creation.



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Financial Data

Report Basis Reported Period Ending	LTM 12/31/2011	LTM 12/29/2012	LTM 12/28/2013	LTM 12/27/2014	LTM 12/26/2015	LTM 12/31/2016	NTM 12/31/2017	5 Yr Average	3 Yr Average	Current Trend
Reported Ferrou Ending	12/31/2011	12/29/2012	12/20/2013	12/21/2014	12/20/2015	12/31/2010	12/31/2017	Average	Average	Helia
Net Sales Revenue	\$127,746.0	\$164,346.0	\$174,123.0	\$199,616.0	\$232,128.0	\$217,481.0	\$231,922.5	\$197,538.8	\$216,408.3	\$224,701.7
Sales Growth	67.24%	28.65%	5.95%	14.64%	16.29%	-6.31%	6.64%	11.84%	8.21%	0.17%
Sales Growth Trend	73.16%	44.09%	15.03%	11.16%	15.63%	2.73%	1.46%	17.73%	9.84%	2.09%
Operating Cash Flow (EBITDAR)	\$49,064.2	\$63,745.6	\$62,981.2	\$76,444.0	\$90,484.0	\$85,246.7	\$90,042.4	\$75,780.3	\$84,058.2	\$87,644.5
EBITDAR Margin	38.41%	38.79%	36.17%	38.30%	38.98%	39.20%	38.82%	38.29%	38.82%	39.01%
EBITDAR Growth	91.66%	29.92%	-1.20%	21.38%	18.37%	-5.79%	5.63%	12.54%	11.32%	-0.08%
Net Operating Profit Before Tax (NOPBT)	\$43,935.2	\$55,480.6	\$50,228.2	\$60,744.0	\$69,478.0	\$63,257.7	\$69,149.9	\$59,837.7	\$64,493.2	\$66,203.8
NOPBT Margin	34.39%	33.76%	28.85%	30.43%	29.93%	29.09%	29.82%	30.41%	29.82%	29.45%
NOPBT Growth	97.95%	26.28%	-9.47%	20.94%	14.38%	-8.95%	9.31%	8.63%	8.79%	0.18%
Cash Operating Income Tax	\$10,790.1	\$14,089.8	\$13,170.5	\$15,872.8	\$18,108.5	\$16,351.0	\$17,988.8	\$15,518.5	\$16,777.4	\$17,169.9
Economic Tax Effective Rate	24.56%	25.40%	26.22%	26.13%	26.06%	25.85%	26.01%	25.93%	26.01%	25.93%
Net Operating Profit After Tax (NOPAT)	\$33,145.1	\$41,390.8	\$37,057.7	\$44,871.2	\$51,369.5	\$46,906.7	\$51,161.1	\$44,319.2	\$47,715.8	\$49,033.9
NOPAT Margin	25.95%	25.19%	21.28%	22.48%	22.13%	21.57%	22.06%	22.53%	22.06%	21.81%
NOPAT Growth	95.16%	24.88%	-10.47%	21.08%	14.48%	-8.69%	9.07%	8.26%	8.96%	0.19%
Cash & Equivalents	\$97,601.0	\$137,112.0	\$158,842.0	\$177,955.0	\$215,739.0	\$246,090.0	\$249,683.5	\$187,147.6	\$213,261.3	\$247,886.8
Total Assets	\$138,681.0	\$196,088.0	\$225,184.0	\$261,894.0	\$293,284.0	\$331,141.0	\$335,976.5	\$261,518.2	\$295,439.7	\$333,558.7
Non - Interest Bearing Liabilities (NIBLs)	\$48,064.0	\$67,992.0	\$77,537.0	\$100,847.0	\$102,054.0	\$111,202.0	\$112,825.8	\$91,926.4	\$104,701.0	\$112,013.9
Net Assets	\$90,617.0	\$128,096.0	\$147,647.0	\$161,047.0	\$191,230.0	\$219,939.0	\$223,150.7	\$169,591.8	\$190,738.7	\$221,544.8
Economic Asset Adjustments	\$10,320.0	\$16,762.2	\$18,669.2	\$20,094.9	\$26,642.4	\$31,846.7	\$32,311.7	\$22,803.1	\$26,194.7	\$32,079.2
Net Operating Assets	\$100,937.0	\$144,858.2	\$166,316.2	\$181,141.9	\$217,872.4	\$251,785.7	\$255,462.4	\$192,394.9	\$216,933.4	\$253,624.1
Debt & Debt Equivalents	\$2,677.0	\$3,902.2	\$21,082.2	\$40,866.9	\$68,539.4	\$94,206.7	\$95,582.4	\$45,719.5	\$67,871.0	\$94,894.5
Equity & Equivalents	\$90,054.0	\$127,346.0	\$129,684.0	\$123,328.0	\$128,267.0	\$132,390.0	\$134,323.2	\$128,203.0	\$127,995.0	\$133,356.6
Total Capital - Financing Sources	\$92,731.0	\$131,248.2	\$150,766.2	\$164,194.9	\$196,806.4	\$226,596.7	\$229,905.6	\$173,922.5	\$195,866.0	\$228,251.1
Capital Adjustments	\$7,643.0	\$12,860.0	\$14,548.0	\$15,631.0	\$21,066.0	\$25,189.0	\$25,556.8	\$17,858.8	\$20,628.7	\$25,372.9
Net Capital Financing Sources	\$100,374.0	\$144,108.2	\$165,314.2	\$179,825.9	\$217,872.4	\$251,785.7	\$255,462.4	\$191,781.3	\$216,494.7	\$253,624.1
Net Working Capital	(\$2,963.7)	(\$5,264.7)	(\$4,330.9)	(\$7,388.2)	(\$16,518.6)	(\$16,331.0)	(\$16,569.4)	(\$9,966.7)	(\$13,412.6)	(\$16,450.2)
Cost of Net Working Capital	(\$197.4)	(\$298.8)	(\$368.3)	(\$397.2)	(\$798.9)	(\$1,167.7)	(\$1,184.8)	(\$606.2)	(\$788.0)	(\$1,176.3)
% of Revenue	-0.15%	-0.18%	-0.21%	-0.20%	-0.34%	-0.54%	-0.51%	-0.29%	-0.36%	-0.52%
Operational Capital	\$7,529.3	\$14,059.5	\$15,278.3	\$17,467.7	\$11,357.8	\$16,836.8	\$17,082.6	\$15,000.0	\$15,220.8	\$16,959.7
Cost of Operational Capital	\$456.2	\$784.0	\$1,126.0	\$1,110.0	\$963.3	\$1,002.3	\$1,016.9	\$997.1	\$1,025.2	\$1,009.6
% of Revenue	0.36%	0.48%	0.65%	0.56%	0.42%	0.46%	0.44%	0.51%	0.48%	0.45%
Productive Capital	\$11,897.3	\$19,902.5	\$21,405.3	\$26,466.7	\$20,483.8	\$25,107.8	\$25,474.4	\$22,673.2	\$24,019.4	\$25,291.1
Cost of Productive Capital	\$659.3	\$1,154.9	\$1,585.4	\$1,622.7	\$1,569.1	\$1,620.7	\$1,644.4	\$1,510.6	\$1,604.2	\$1,632.5
% of Revenue	0.52%	0.70%	0.91%	0.81%	0.68%	0.75%	0.71%	0.77%	0.74%	0.73%
Total Operating Capital	\$9,723.3	\$15,963.5	\$16,180.3	\$13,167.7	\$13,739.8	\$16,569.8	\$16,811.7	\$15,124.2	\$14,492.4	\$16,690.7
Cost of Total Operating Capital	\$522.3	\$932.9	\$1,233.7	\$994.8	\$899.2	\$1,077.5	\$1,093.2	\$1,027.6	\$990.5	\$1,085.3
% of Revenue	0.41%	0.57%	0.71%	0.50%	0.39%	0.50%	0.47%	0.53%	0.46%	0.48%
Non - Operating Capital	\$91,213.7	\$128,894.7	\$150,135.9	\$167,974.2	\$204,132.6	\$235,216.0	\$238,650.7	\$177,270.7	\$202,440.9	\$236,933.3
Cost of Non - Operating Capital	\$5,304.9	\$7,993.7	\$10,709.4	\$10,782.8	\$12,435.6	\$15,618.1	\$15,846.1	\$11,507.9	\$12,945.5	\$15,732.1
% of Revenue	4.15%	4.86%	6.15%	5.40%	5.36%	7.18%	6.83%	5.79%	5.98%	7.01%
Total Capital	\$100,937.0	\$144,858.2	\$166,316.2	\$181,141.9	\$217,872.4	\$251,785.7	\$255,462.4	\$192,394.9	\$216,933.4	\$253,624.1
Cost of Total Capital	\$5,827.3	\$8,926.6	\$11,943.2	\$11,777.6	\$13,334.8	\$16,695.5	\$16,939.3	\$12,535.5	\$13,936.0	\$16,817.4
% of Revenue	4.56%	5.43%	6.86%	5.90%	5.74%	7.68%	7.30%	6.32%	6.44%	7.49%
Cost of Capital (WACC)	7.21%	7.26%	7.68%	6.78%	6.68%	7.11%	7.11%	7.10%	6.86%	7.11%
On with 1 Others town										
Capital Structure	60.077.0	£2.000.0	£24 000 C	£40.000.0	¢c0 500 4	£04.000 =	tor roo t	¢45 740 5	667.074.0	¢04.004.5
Debt & Debt Equivalents	\$2,677.0	\$3,902.2	\$21,082.2	\$40,866.9	\$68,539.4	\$94,206.7	\$95,582.4	\$45,719.5	\$67,871.0	\$94,894.5
Debt & Debt Equivalents % of Market Value	0.71%	0.81%	4.02%	5.76%	10.22%	13.40%	13.40%	7.40%	9.77%	13.40%
Preferred Equity	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Preferred Equity % of Market Value	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Market Value of Common Equity	\$376,410.7	\$478,412.0	\$503,934.3	\$668,533.1	\$602,303.0	\$608,960.2	\$617,852.6	\$572,428.5	\$626,598.8	\$613,406.4
Common Equity % of Market Value	99.29%	99.19%	95.98%	94.24%	89.78%	86.60%	86.60%	92.60%	90.23%	86.60%
Total Economic Market Value (MV)	\$379,087.7	\$482,314.3	\$525,016.5	\$709,400.0	\$670,842.5	\$703,166.9	\$713,434.9	\$618,148.0	\$694,469.8	\$708,300.9
Total %	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Excess Cash	\$91,213.7	\$128,894.7	\$150,135.9	\$167,974.2	\$204,132.6	\$235,216.0	\$238,650.7	\$177,270.7	\$202,440.9	\$236,933.3
Economic Enterprise Value	\$287,874.0	\$353,419.6	\$374,880.6	\$541,425.8	\$466,709.9	\$467,951.0	\$474,784.2	\$440,877.4	\$492,028.9	\$471,367.6
Average Capital	\$80,283.8	\$122,241.1	\$154,711.2	\$172,570.1	\$198,849.2	\$234,829.1	\$253,624.1	\$176,640.1	\$202,082.8	\$244,226.6
Capital Δ	\$40,180.4	\$43,734.2	\$21,206.0	\$14,511.8	\$38,046.5	\$33,913.3	\$3,676.7	\$30,282.3	\$28,823.8	\$18,795.0
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Report Basis Reported Period Ending	LTM 12/31/2011	LTM 12/29/2012	LTM 12/28/2013	LTM 12/27/2014	LTM 12/26/2015	LTM 12/31/2016	NTM 12/31/2017	5 Yr Average	3 Yr Average	Current Trend
Return on Market Value (NOPAT / MV)	8.74%	8.58%	7.06%	6.33%	7.66%	6.67%	6.77%	7.26%	6.88%	6.72%
Return on Enterprise Value (NOPAT / EV)	11.51%	11.71%	9.89%	8.29%	11.01%	10.02%	10.17%	10.18%	9.77%	10.10%
Return on Capital (NOPAT / Average Capital)	41.28%	33.86%	23.95%	26.00%	25.83%	19.97%	20.27%	25.92%	23.94%	20.12%
Cost of Capital (WACC)	7.21%	7.26%	7.68%	6.78%	6.68%	7.11%	7.11%	7.10%	6.86%	7.11%
Economic Return Spread	34.07%	26.60%	16.28%	19.22%	19.15%	12.87%	13.05%	18.82%	17.08%	12.96%
Capital Charge	\$5,790.5	\$8,878.9	\$11,875.9	\$11,699.1	\$13,290.8	\$16,695.5	\$16,939.3	\$12,488.0	\$13,895.1	\$16,817.4
Economic Profit (EP)	\$27,354.5	\$32,512.0	\$25,181.8	\$33,172.1	\$38,078.6	\$30,211.1	\$30,652.3	\$31,831.1	\$33,820.6	\$30,431.7
Economic Profit Improvment (EPI) EP Growth	\$14,759.0	\$5,157.4	(\$7,330.2)	\$7,990.4	\$4,906.5	(\$7,867.5)	\$441.2	\$571.3	\$1,676.5	(\$3,713.2)
	117.18% 21.41%	18.85% 19.78%	-22.55% 14.46%	31.73% 16.62%	14.79% 16.40%	-20.66% 13.89%	1.46% 13.22%	4.43% 16.23%	8.62% 15.64%	-9.60% 13.55%
Economic Profit Margin on Sales Economic Profit Per Share	\$4.23	\$4.97	\$3.89	\$5.45	\$6.62	\$5.52	\$5.60	\$5.29	\$5.86	\$5.56
GAAP Earnings Per Share	\$5.08	\$6.37	\$5.80	\$7.47	\$9.47	\$8.40	\$9.16	\$7.50	\$8.45	\$8.78
Excess Cash Per Share	\$14.00	\$19.61	\$23.94	\$28.75	\$36.72	\$44.39	\$45.04	\$30.68	\$36.62	\$44.72
Performance Drivers										
Sales Growth	67.24%	28.65%	5.95%	14.64%	16.29%	-6.31%	6.64%	11.84%	8.21%	0.17%
Sales Growth Trend (ROC Sales Growth)	73.16%	44.09%	15.03%	11.16%	15.63%	2.73%	1.46%	17.73%	9.84%	2.09%
EBITDAR Margin	38.41%	38.79%	36.17%	38.30%	38.98%	39.20%	38.82%	38.29%	38.82%	39.01%
EBITDAR Growth	91.66%	29.92%	-1.20%	21.38%	18.37%	-5.79%	5.63%	12.54%	11.32%	-0.08%
NOPBT Margin	34.39%	33.76%	28.85%	30.43%	29.93%	29.09%	29.82%	30.41%	29.82%	29.45%
NOPBT Growth	97.95%	26.28%	-9.47%	20.94%	14.38%	-8.95%	9.31%	8.63%	8.79%	0.18%
NOPAT Margin	25.95%	25.19%	21.28%	22.48%	22.13%	21.57%	22.06%	22.53%	22.06%	21.81%
NOPAT Growth	95.16%	24.88%	-10.47%	21.08%	14.48%	-8.69%	9.07%	8.26%	8.96%	0.19%
Economic Profit Margin on Sales (EP / Sales)	21.41%	19.78%	14.46%	16.62%	16.40%	13.89%	13.22%	16.23%	15.64%	13.55%
Economic Profit Growth	117.18%	18.85%	-22.55%	31.73%	14.79%	-20.66%	1.46%	4.43%	8.62%	-9.60%
Economic Return Spread (ROC-WACC) Economic Return Ratio (ROC / WACC)	34.07%	26.60%	16.28%	19.22%	19.15%	12.87%	13.16%	18.82%	17.08%	13.01%
	572.40%	466.17%	312.04%	383.55%	386.50%	280.95%	285.06%	365.84%	350.33%	283.00%
Economic Profit Momentum (ΔΕΡ/Capital)	14.70%	3.58%	-4.43%	4.44%	2.25%	-3.12%	0.17%	0.54%	1.19% 0.83%	-1.48%
Economic Profit Momentum Margin (ΔΕΡ/Sales)	11.55%	3.14%	-4.21% 14.72%	4.00%	2.11%	-3.62%	0.19%	0.29%		-1.71%
Capital Growth Capital Tums	66.75% 1.27X	43.57% 1.14X	14.72% 1.05X	8.78% 1.11X	21.16% 1.07X	15.57% 0.86X	1.46% 0.91X	20.76% 1.05X	15.17% 1.01X	8.51% 0.89
EVC Acceleration Margin	1.27%	1.14X 4.04%	-4.46%	4.59%	2.46%	-3.39%	0.91X 0.20%	0.25%	0.85%	-1.72%
EVC Acceleration National EVC Acceleration Spread	29.79%	6.42%	-6.00%	5.16%	2.84%	-3.96%	0.19%	0.23%	0.95%	-1.84%
Risk Factors										
Free Cash Flow (NOPAT - Δ Capital)	(\$7,035.3)	(\$2,343.4)	\$15,851.7	\$30,359.5	\$13,322.9	\$12,993.4	\$47,484.4	\$14,036.8	\$18,891.9	\$30,238.9
Free Cash Flow Rate (FCF / Capital)	-7.01%	-1.63%	9.59%	16.88%	6.12%	5.16%	18.59%	7.22%	9.39%	11.87%
Free Cash Flow Yield (FCF / MV)	-1.86%	-0.49%	3.02%	4.28%	1.99%	1.85%	6.66%	2.13%	2.70%	4.25%
Total Debt / Total Capital	2.67%	2.71%	12.75%	22.73%	31.46%	37.42%	37.42%	21.41%	30.53%	37.42%
Total Debt / EBITDAR	5.46%	6.12%	33.47%	53.46%	75.75%	110.51%	106.15%	55.86%	79.91%	108.33%
Excess Cash	\$91,213.7	\$128,894.7	\$150,135.9	\$167,974.2	\$204,132.6	\$235,216.0	\$0.0	\$177,270.7	\$202,440.9	\$117,608.0
Financial Leverage ((Total Debt - Excess Cash) /	-23.36%	-25.92%	-24.58%	-17.92%	-20.21%	-20.05%	13.40%	-21.74%	-19.39%	-3.33%
Pension Leverage (Net Pension Liability / MV)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.009
Equity Risk Index (S&P 500 = 1.00)	1.17	1.17	1.17	1.16	1.16	1.16	1.16	1.16	1.16	1.16
Stock Price Volatility	4.23	4.30	4.11	3.51	3.40	3.57	3.57	3.78	3.49	3.57
Sales Index (NL Sales)	11.76	12.01	12.07	12.20	12.36	12.29	12.35	12.19	12.28	12.32
Market Value Index (NL Market Value)	12.85	13.09	13.17	13.47	13.42	13.46	13.48	13.32	13.45	13.47
Size Index (NL Sales: MV)	12.30	12.55	12.62	12.84	12.89	12.88	12.92	12.75	12.87	12.90
Beta	1.26	1.25	1.25	1.24	1.24	1.23	1.23	1.24	1.24	1.23
TFP Adjusted Beta	1.17	1.17	1.17	1.16	1.16	1.16	1.16	1.16	1.16	1.16
Stock Price Volatility	4.23	4.30	4.11	3.51	3.40	3.57	3.57	3.78	3.49	3.57
Valuation Measures										
Total Economic Market Value (MV)	\$379,087.7	\$482,314.3	\$525,016.5	\$709,400.0	\$670,842.5	\$703,166.9	\$713,434.9	\$618,148.0	\$694,469.8	\$708,300.9
Economic Enterprise Value	\$287,874.0	\$353,419.6	\$374,880.6	\$541,425.8	\$466,709.9	\$467,951.0	\$474,784.2	\$440,877.4	\$492,028.9	\$471,367.6
Equity Market Value	\$376,410.7	\$478,412.0	\$503,934.3	\$668,533.1	\$602,303.0	\$608,960.2	\$617,852.6	\$572,428.5	\$626,598.8	\$613,406.4
Total Capital	\$100,937.0	\$144,858.2	\$166,316.2	\$181,141.9	\$217,872.4	\$251,785.7	\$255,462.4	\$192,394.9	\$216,933.4	\$253,624.1
Market Value Created MVC (MV - Capital)	\$278,150.7	\$337,456.0	\$358,700.3	\$528,258.1	\$452,970.0	\$451,381.2	\$457,972.5	\$425,753.1	\$477,536.4	\$454,676.9
MVC Margin (MVC / Sales)	217.74%	205.33%	206.00%	264.64%	195.14%	207.55%	197.47%	215.53%	220.66%	202.359
MVC Spread (MVC / Capital)	275.57%	232.96%	215.67%	291.63%	207.91%	179.27%	179.27%	221.29%	220.13%	179.279
Current EVC Value (EP / WACC)	\$379,260.9	\$447,612.7	\$328,050.7	\$489,314.0	\$569,710.1	\$424,931.4	\$431,136.4	\$448,168.9	\$493,184.1	\$428,033.9
Current Operations Value COV	\$459,544.7	\$569,853.8	\$482,761.9	\$661,884.1	\$768,559.3	\$659,760.4	\$684,760.5	\$624,809.0	\$695,266.9	\$672,260.5
Current Operations Value Per Share	\$71.03	\$87.08	\$74.53	\$108.76	\$133.58	\$120.60	\$112.88	\$103.00	\$120.50	\$116.54
Future Growth Value (MVC - EVA Value)	(\$80,457.0)	(\$87,539.5)	\$42,254.6	\$47,515.9	(\$97,716.9)	\$43,406.5	\$28,674.5	(\$6,661.0)	(\$797.1)	\$36,040.5
Future Growth Value Reliance (FGV / MV)	-21.22%	-18.15%	8.05%	6.70%	-14.57%	6.17%	4.02%	-1.08%	-0.11%	5.099
Share Price	\$57.86	\$95.30	\$68.96	\$100.75	\$114.71	\$115.82	\$115.82	\$99.11	\$110.43	\$115.82
Dividend Yield	0.00%	0.79%	2.44%	1.83%	1.77%	1.93%	0.0001	4.4.4001	44 4001	4.000
Total Shareholder Return (TTM)	38.55%	65.51%	-25.19%	47.92%	15.63%	2.89%	0.00%	-14.43%	11.42%	4.889
MV to IC Ratio	3.76X	3.33X	3.16X	3.92X	3.08X	2.79X	2.79X	3.21X	3.20X	2.79
EV / EBITDAR Multiple	5.87X	5.54X	5.95X	7.08X	5.16X	5.49X	5.27X	5.82X	5.85X	5.38
EV / NOPBIT Multiple	6.55X	6.37X	7.46X	8.91X	6.72X	7.40X	6.87X	7.37X	7.63X	7.12
EV / NOPAT Multiple	8.69X	8.54X	10.12X	12.07X	9.09X	9.98X	9.28X	9.95X	10.31X	9.61
EV / EP Multiple	10.52X	10.87X	14.89X	16.32X	12.26X	15.49X	15.49X	13.85X	14.55X	15.49
Future Growth Value (% of MV) Current Operations Value (% of MV)	-21.22%	-18.15%	8.05%	6.70%	-14.57%	6.17%	4.02%	-1.08%	-0.11%	5.099
	121.22%	118.15%	91.95%	93.30%	114.57%	93.83%	95.98%	101.08%	100.11%	94.919
	100 000/	100 000/	100 000/	100 000/	100 000/					
Market Value (COV + FGV %) Basic Shares Outstanding	100.00% 6,469.8	100.00% 6,543.7	100.00% 6,477.3	100.00% 6,085.6	100.00% 5,753.4	100.00% 5,470.8	100.00% 6,066.2	100.00% 6,066.2	100.00% 5,769.9	100.00% 5,768.5

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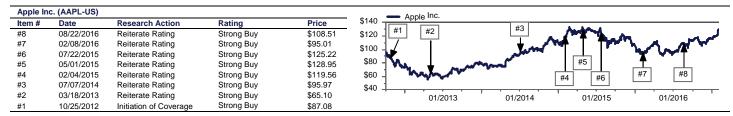
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Ratings History



Tigress Research Methodology Overview

We employ proprietary quantitative valuation models combined with dynamic fundamental analysis based on the principles of Economic Profit to formulate timely and insightful investment ratings, analysis, strategies and recommendations.

We make key adjustments to reported financial data eliminating GAAP-based accounting distortions and measuring all companies on a cash operating basis.

Our proprietary research framework is a multi-factor model that scores and ranks companies based on their risk-adjusted ability to create Economic Profit relative to their current market value focusing on three key components:

Business Performance: Measuring economic profitability, growth and operating efficiency.

Risk: Measuring business sustainability, volatility, strength and consistency.

Valuation: Linking business performance to market value. Measuring value created relative to capital employed and enterprise multiples of economic profit and cash flow.

We score and rank 24 key measurements of performance, risk and value into relative market and industry investment recommendations.

For more information on our research methodology, please review the Tigress Investment Research Guide to Company Valuation and Analysis.

Glossary of Key Terms and Measures

Excess Cash per Share: Excess Cash per Share is the amount of excess cash divided by basic shares outstanding. Excess Cash consists of all

cash and short-term securities less operating cash needed to run the business. Operating Cash is 5% of TTM net sales

revenue

EBITDAR: Earnings Before Interest, Taxes, Depreciation, Amortization, and Restructuring and Rent Costs. This is especially

important when comparing companies that use a significant amount of leased assets like restaurants and retailers.

NOPAT: Net Operating Profit after Tax. Represents a company's after-tax cash operating profit excluding financing costs.

Total Invested Capital: Total Invested Capital the total cash investment that shareholders and debt holders have made during the life of

company.

Return on Capital: Return on Capital equals NOPAT divided by Total Invested Capital. It is a key measure of operating efficiency. ROC

quantifies how well a company generates cash flow relative to the capital invested in its business.

Cost of Capital: Is the proportionately weighted cost of each category of capital – common equity, preferred equity and debt.

Economic Profit: Economic Profit is the net operating income after tax less the opportunity cost of the total capital invested. It is the most

important driver of shareholder value.

Current Operations Value: Current Operations Value is the portion of market value based on the discounted present value of the current earnings

stream assuming it remains constant forever.

Future Growth Value: Future Growth Value is the portion of market value based on un-earned Economic Profit

For more information on the key terms and measures, please review the Tigress Investment Research Guide to Company Valuation and Analysis.



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Rating	Distribution	(02/06/2017)

Relationship

•	e S&P 500 and to the subject company's industry peer group as indicated.	Companies Under Coverage			Companies Under Coverage*	
Rating:	Meaning:		#	%	#	%
Strong Buy:	Expect significant price gains in the price of the stock relative to its industry peer group and general market over the next 12 months.		16	15%	0	0
Buy:	Expect out-performance for the price of the stock relative to its industry peer group and general market over the next 12 months.		49	44%	4	80%
Neutral:	Expect little or no outperformance opportunity over the next 12 months.		38	36%	1	20%
Underperform:	Expect underperformance for the price of the stock relative to its industry peer group and general market over the next 12 months.		6	5%	0	0
Sell:	Expect price decline or significant relative market and industry underperformance over the next 12 months.		0	0%	0	0%
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