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## **QUALCOMM Incorporated (QCOM-US)**

### **Communications Equipment**

- **We reiterate our Buy rating on QCOM. We believe investors with a long-term view will be well rewarded from current levels.**
- **The purchase of NXP Semiconductor will further position QCOM as the dominant producer of mobile chipsets.**
- **QCOM is entering the connected car and unmanned aircraft markets.**
- **QCOM continues to be the world’s leading manufacturer of wireless baseband chipsets with a 66% market share.**
- **QCOM continues to expand licensing relationships in China.**
- **5G rollout will be a major opportunity for QCOM.**

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## Company Update

**QUALCOMM Incorporated (QCOM-US)**  
 Communications Equipment

**Ivan Feinseth**  
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**Research Action:**

Reiterate rating

**Rating:** Buy

**Prior Rating:** Buy

**Price 02/03/2017:** \$52.98

**52 Week High / Low:** \$71.62 / \$42.24

**Key Data: (TTM as of Dec-16)**
**Excess Cash per Share:** \$19.35

**Annual Dividend:** \$2.12

**Dividend Yield:** 4.00%

**Ave. Volume (30 Day):** 18.5M

**Shares Outstanding:** 1,477.7M

**Float:** 1,474.5M

**Equity MV:** \$78,288.5M

**Sales TTM:** \$23,778.0M

**Beta:** 1.04

**EBITDAR:** \$14,358.2M

**NOPAT:** \$6,317.5M

**Total Invested Capital:** \$40,840.4M

**Return on Capital:** 15.67%

**Cost of Capital:** 6.70%

**Economic Profit:** \$3,616.0M

**Market Value Added:** \$49,437.5M

**Current Operations Value:** \$94,799.5M

**Future Growth Value:** -\$4,521.5M

- **We reiterate our Buy rating on QCOM.** The recent deal to buy NXP Semiconductor (NXPI-US, non-rated) will further strengthen QCOM position as the leading communication chip provider and expand their presence in automotive, network and mobile computing. We believe the recent weakness in QCOM's stock price, brought on by charges of anti-competitive and unfair business practice together with a lawsuit filed against them by Apple (AAPL-US, Strong Buy rated), has created a significant buying opportunity. We believe QCOM's dominant industry position and royalty driven business model will continue to generate increasing returns on capital and greater Economic Profit. We further believe the outcome of the business practice charges and the litigation with Apple will work out in favor of QCOM and result in a stronger relationship with several key customers. We believe investors with a long-term view will be well rewarded.
- **The purchase of NXP Semiconductor will further position QCOM as the dominant producer of mobile chipsets.** NXP expands QCOM's position in mobile chip production to include chips for use in automotive communication and vehicle telematics along with chips for other mobile devices including wearable fitness and mobile payment processing and RF tagging. We believe RF tagging will become the key component in retail transaction processing and inventory management. The ability to pick up products in a store put them in your cart and walk through a checkout scanner quickly and efficiently will all be enabled by RF tagging. NXP provides mixed-signal processing technology to over 25,000 customers. This merger best positions QCOM in the center of what is expected to be a \$130 billion market by 2020.
- **QCOM is entering the connected car and unmanned aircraft markets.** Audi has begun using QCOM's Snapdragon 602A mobile processors in its 2017 vehicles. QCOM has just started production on its latest generation automotive-grade system-on-chip, Snapdragon 820A, which will drive in-car infotainment and communications. QCOM is working with Google (GOOGL-US, Strong Buy rated) to develop Android Auto in-car solutions with its Snapdragon automotive processors, creating the next generation of in-car experiences and establishing a new revenue stream. We further believe that QCOM will announce a similar partnership with Apple. QCOM is currently working with AT&T (T-US, Neutral rated) in the testing of Unmanned Aircraft Systems (UAS) or drones on commercial 4G LTE networks.

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- **QCOM continues to be the world's leading manufacturer of wireless baseband chipsets with 66% market share.** QCOM will continue to benefit from the global growth of 3G/4GLTE wireless connectivity and smart phone sales in the emerging markets, especially in China, India and Latin America. The ongoing deployment of 4G Long Term Evolution (LTE) technology in China will further drive chip demand. QCOM remains the exclusive chipset provider Apple and Samsung, which together have 40% of the smartphone and 50% of the tablet market, globally. QCOM has more than 255 licensees worldwide. In Q1 2017, QCOM shipped over 217 million CDMA-based MSM chipsets a decrease of 10% year over year and shipped 331 million 3G and 335 million 4G handsets, up 8% year over year.
- **QCOM continues to expand licensing relationships in China.** QCOM has begun signed multiple licensing deals with China's largest Chinese smartphone makers which includes Xiaomi. In Dec 2016, QCOM announced a patent license agreement for 3G and 4G networks with Gionee Communication Equipment Co. Ltd. QCOM granted Gionee a license to develop, manufacture and sell 3G WCDMA (Wideband Code Division Multiple Access), CDMA2000 (Code-Division Multiple Access) and 4G LTE (including 3-mode: GSM, TD-SCDMA and LTE-TDD) devices in China. The royalties payable by Gionee follow the terms of the rectification plan submitted by QCOM to China's National Development and Reform Commission (NDRC). Gionee, based in Shenzhen, is one of China's largest mobile phone manufacturers.
- **5G rollout will be a major opportunity for QCOM.** QCOM is currently working with AT&T and Ericsson testing and developing high-band frequencies for the next-generation 5G technology to deliver "multi-gigabit Internet service" over the air. For comparison, downloading a two-hour movie on a 3G network would take a day. Downloading the same movie on a 4G network takes a few minutes and on a 5G network will take a few seconds. AT&T will be using 28GHz and 39GHz spectrum bands in the trial and QCOM will provide prototype devices and Ericsson will offer base station solutions. The next-gen 5G network will provide 50 times the throughput of the currently available 4G LTE standard. Further, 5G technology is designed to be more power efficient than any of the other standard wireless networks currently available.

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**Investment Thesis**

QCOM continues to be the global leader in the development and production of wireless chipsets enabling mobile communication. QCOM's recent purchase of NXP semiconductor will further expand its position as a leader in automotive communication and other RF enabled devices. QCOM is the leader in wireless chipset design and holds more patents and licenses of their technology to other users than any other company. QCOM license/royalty model maximizes returns and minimizes production risk and will continue to drive greater return on capital and Economic Profit. QCOM's Snapdragon processor is the dominant processor used in almost every type of wirelessly connected device. The over 66% market share is the cause for accusations of anti-competitive practices. We believe the quality and speed of the snapdragon processor is the reason for its dominant market share. We further believe that the result of the Apple lawsuit and QCOM counter suit will be a better working and license relationship between the two companies.

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Company Report – Research Update

Financial Data

Report Basis	LTM	LTM	LTM	LTM	LTM	LTM	NTM	5 Yr	3 Yr	Current
Reported Period Ending	12/25/2011	12/30/2012	12/29/2013	12/28/2014	12/27/2015	12/25/2016	12/31/2017	Average	Average	Trend
<b>Net Sales Revenue</b>	\$16,296.0	\$20,457.0	\$25,470.0	\$26,964.0	\$23,957.0	\$23,778.0	\$24,200.3	\$24,125.2	\$24,899.7	\$23,989.1
Sales Growth	39.63%	25.53%	24.51%	5.87%	-11.15%	-0.75%	1.78%	8.80%	-2.01%	0.51%
Sales Growth Trend	27.95%	31.17%	24.92%	13.32%	-4.34%	-4.91%	0.77%	12.03%	1.36%	-2.07%
<b>Cash Operating Expenses</b>	\$5,983.9	\$8,262.8	\$10,931.1	\$11,205.8	\$9,856.8	\$9,419.8	\$9,867.1	\$9,935.3	\$10,160.8	\$9,643.4
% of Sales	36.72%	40.39%	42.92%	41.56%	41.14%	39.62%	40.77%	41.13%	40.77%	40.19%
<b>Operating Cash Flow (EBITDAR)</b>	\$10,312.1	\$12,194.2	\$14,538.9	\$15,758.2	\$14,100.2	\$14,358.2	\$14,333.2	\$14,189.9	\$14,738.9	\$14,345.7
EBITDAR Margin	63.28%	59.61%	57.08%	58.44%	58.86%	60.38%	59.23%	58.87%	59.23%	59.81%
EBITDAR Growth	37.11%	18.25%	19.23%	8.39%	-10.52%	1.83%	-0.17%	7.43%	-0.10%	0.83%
<b>Economic Operating Expenses</b>	\$4,376.0	\$5,168.0	\$6,326.0	\$6,728.0	\$6,872.0	\$6,611.0	\$6,569.5	\$6,341.0	\$6,737.0	\$6,590.3
% of Sales	26.85%	25.26%	24.84%	24.95%	28.68%	27.80%	27.15%	26.31%	27.15%	27.47%
<b>Net Operating Profit Before Tax (NOPBT)</b>	\$5,936.1	\$7,026.2	\$8,212.9	\$9,030.2	\$7,228.2	\$7,747.2	\$7,763.7	\$7,848.9	\$8,001.9	\$7,755.4
NOPBT Margin	36.43%	34.35%	32.25%	33.49%	30.17%	32.58%	32.08%	32.57%	32.08%	32.33%
NOPBT Growth	44.25%	18.37%	18.89%	9.95%	-19.95%	7.18%	0.21%	6.49%	-0.94%	3.70%
<b>Cash Operating Income Tax</b>	\$1,216.6	\$1,353.9	\$1,334.5	\$1,220.9	\$1,357.7	\$1,429.7	\$1,313.6	\$1,339.3	\$1,336.1	\$1,371.7
Economic Tax Effective Rate	20.49%	19.27%	16.25%	13.52%	18.78%	18.45%	16.92%	17.26%	16.92%	17.69%
<b>Net Operating Profit After Tax (NOPAT)</b>	\$4,719.5	\$5,672.4	\$6,878.3	\$7,809.2	\$5,870.5	\$6,317.5	\$6,450.1	\$6,509.6	\$6,665.7	\$6,383.8
NOPAT Margin	28.96%	27.73%	27.01%	28.96%	24.50%	26.57%	26.65%	26.95%	26.68%	26.61%
NOPAT Growth	38.25%	20.19%	21.26%	13.53%	-24.83%	7.61%	2.10%	7.55%	-1.23%	4.86%
<b>Cash &amp; Equivalents</b>	\$21,978.0	\$28,371.0	\$31,610.0	\$31,641.0	\$30,591.0	\$29,785.0	\$30,013.3	\$30,399.6	\$30,672.3	\$29,899.2
<b>Total Assets</b>	\$37,606.0	\$44,841.0	\$46,282.0	\$48,447.0	\$50,229.0	\$52,366.0	\$52,767.5	\$48,433.0	\$50,347.3	\$52,566.7
<b>Non - Interest Bearing Liabilities (NIBLs)</b>	\$7,489.0	\$8,836.0	\$8,535.0	\$8,842.0	\$8,151.0	\$8,611.0	\$8,677.0	\$8,595.0	\$8,534.7	\$8,644.0
<b>Net Assets</b>	\$30,101.0	\$35,985.0	\$37,747.0	\$39,609.0	\$42,088.0	\$43,764.0	\$44,099.5	\$39,838.2	\$41,819.7	\$43,931.8
<b>Economic Asset Adjustments</b>	(\$1,714.8)	(\$1,244.3)	(\$1,652.7)	(\$1,487.3)	(\$2,016.7)	(\$2,058.6)	(\$2,074.3)	(\$1,691.9)	(\$1,854.2)	(\$2,066.5)
<b>Net Operating Assets</b>	\$28,386.2	\$34,740.7	\$36,094.3	\$38,121.7	\$40,069.3	\$41,705.4	\$42,025.2	\$38,146.3	\$39,965.5	\$41,865.3
<b>Debt &amp; Debt Equivalents</b>	\$1,492.2	\$438.7	\$321.3	\$279.7	\$11,210.3	\$11,989.4	\$12,081.4	\$4,847.9	\$7,826.5	\$12,035.4
<b>Equity &amp; Equivalents</b>	\$28,481.0	\$35,334.0	\$37,027.0	\$38,823.0	\$30,241.0	\$31,215.0	\$31,454.3	\$34,528.0	\$33,426.3	\$31,334.7
<b>Total Capital - Financing Sources</b>	\$29,973.2	\$35,772.7	\$37,348.3	\$39,102.7	\$41,451.3	\$43,204.4	\$43,535.7	\$39,375.9	\$41,252.8	\$43,370.0
<b>Capital Adjustments</b>	(\$2,129.0)	(\$1,650.0)	(\$1,960.0)	(\$1,767.0)	(\$2,277.0)	(\$2,364.0)	(\$2,382.1)	(\$2,003.6)	(\$2,136.0)	(\$2,373.1)
<b>Net Capital Financing Sources</b>	\$27,844.2	\$34,122.7	\$35,388.3	\$37,335.7	\$39,174.3	\$40,840.4	\$41,153.5	\$37,372.3	\$39,116.8	\$40,997.0
<b>Net Working Capital</b>	(\$12.2)	\$465.9	(\$25.5)	\$669.2	\$400.9	\$776.9	\$782.9	\$457.5	\$615.7	\$779.9
Cost of Net Working Capital	(\$6.1)	\$8.7	\$16.4	\$21.6	\$32.5	\$39.8	\$40.1	\$23.8	\$31.3	\$39.9
% of Revenue	-0.04%	0.04%	0.06%	0.08%	0.14%	0.17%	0.17%	0.10%	0.13%	0.17%
<b>Operational Capital</b>	\$2,809.0	\$3,745.6	\$2,650.8	\$3,479.9	\$3,145.1	\$3,352.3	\$3,378.0	\$3,274.7	\$3,325.8	\$3,365.2
Cost of Operational Capital	\$191.8	\$225.8	\$238.1	\$205.7	\$201.0	\$219.5	\$221.2	\$218.0	\$208.7	\$220.3
% of Revenue	1.18%	1.10%	0.93%	0.76%	0.84%	0.92%	0.91%	0.91%	0.84%	0.92%
<b>Productive Capital</b>	\$9,526.0	\$10,500.6	\$9,352.8	\$10,389.9	\$12,882.1	\$12,376.3	\$12,471.2	\$11,100.3	\$11,882.8	\$12,423.8
Cost of Productive Capital	\$576.1	\$690.0	\$739.1	\$662.4	\$706.1	\$853.3	\$859.8	\$730.2	\$740.6	\$856.6
% of Revenue	3.54%	3.37%	2.90%	2.46%	2.95%	3.59%	3.55%	3.05%	3.00%	3.57%
<b>Total Operating Capital</b>	\$7,223.0	\$7,392.6	\$5,757.8	\$7,828.9	\$10,676.1	\$13,109.3	\$13,209.8	\$8,952.9	\$10,538.1	\$13,159.6
Cost of Total Operating Capital	\$387.7	\$503.6	\$489.6	\$455.9	\$561.5	\$803.5	\$809.7	\$562.8	\$606.9	\$806.6
% of Revenue	2.38%	2.46%	1.92%	1.69%	2.34%	3.38%	3.35%	2.36%	2.47%	3.36%
<b>Non - Operating Capital</b>	\$21,163.2	\$27,348.2	\$30,336.5	\$30,292.8	\$29,393.2	\$28,596.1	\$28,815.3	\$29,193.3	\$29,427.4	\$28,705.7
Cost of Non - Operating Capital	\$1,359.5	\$1,671.4	\$2,147.4	\$2,034.3	\$1,810.9	\$1,959.0	\$1,974.0	\$1,924.6	\$1,934.7	\$1,966.5
% of Revenue	8.34%	8.17%	8.43%	7.54%	7.56%	8.24%	8.16%	7.99%	7.78%	8.20%
<b>Total Capital</b>	\$28,386.2	\$34,740.7	\$36,094.3	\$38,121.7	\$40,069.3	\$41,705.4	\$42,025.2	\$38,146.3	\$39,965.5	\$41,865.3
Cost of Total Capital	\$1,747.1	\$2,175.0	\$2,637.0	\$2,490.1	\$2,372.4	\$2,762.5	\$2,783.7	\$2,487.4	\$2,541.7	\$2,773.1
% of Revenue	10.72%	10.63%	10.35%	9.23%	9.90%	11.62%	11.50%	10.35%	10.25%	11.56%
<b>Cost of Capital (WACC)</b>	6.85%	6.89%	7.45%	6.71%	6.07%	6.76%	6.76%	6.77%	6.51%	6.76%
Weighted After Tax Debt Cost of Capital	0.05%	0.01%	0.01%	0.01%	0.41%	0.40%	0.40%	0.17%	0.27%	0.40%
Weighted Preferred Equity Cost of Capital	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Weighted Equity Cost of Capital	6.80%	6.88%	7.44%	6.70%	5.66%	6.36%	6.36%	6.61%	6.24%	6.36%
<b>Capital Structure</b>										
<b>Debt &amp; Debt Equivalents</b>	\$1,492.2	\$438.7	\$321.3	\$279.7	\$11,210.3	\$11,989.4	\$12,081.4	\$4,847.9	\$7,826.5	\$12,035.4
Debt & Debt Equivalents % of Market Value	1.59%	0.42%	0.26%	0.22%	13.08%	10.83%	10.83%	4.40%	7.28%	10.83%
<b>Preferred Equity</b>	\$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%
<b>Market Value of Common Equity</b>	\$92,137.6	\$103,329.3	\$124,680.4	\$125,725.9	\$74,478.3	\$98,744.7	\$99,501.7	\$105,391.7	\$99,649.6	\$99,123.2
Common Equity % of Market Value	98.41%	99.58%	99.74%	99.78%	86.92%	89.17%	89.17%	95.60%	92.72%	89.17%
<b>Total Economic Market Value (MV)</b>	\$93,629.8	\$103,768.0	\$125,001.7	\$126,005.6	\$85,688.6	\$110,734.1	\$111,583.0	\$110,239.6	\$107,476.1	\$111,158.6
Total %	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
<b>Excess Cash</b>	\$21,163.2	\$27,348.2	\$30,336.5	\$30,292.8	\$29,393.2	\$28,596.1	\$28,815.3	\$29,193.3	\$29,427.4	\$28,705.7
<b>Economic Enterprise Value</b>	\$72,466.6	\$76,419.8	\$94,665.2	\$95,712.8	\$56,295.4	\$82,138.0	\$82,767.7	\$81,046.2	\$78,048.7	\$82,452.8
<b>Ending Capital</b>	\$27,844.2	\$34,122.7	\$35,388.3	\$37,335.7	\$39,174.3	\$40,840.4	\$41,153.5	\$37,372.3	\$39,116.8	\$40,997.0
- Beginning Capital	\$22,137.8	\$27,844.2	\$34,122.7	\$35,388.3	\$37,335.7	\$39,174.3	\$40,840.4	\$34,773.0	\$37,299.4	\$40,007.4
<b>Average Capital</b>	\$24,991.0	\$30,983.5	\$34,755.5	\$36,362.0	\$38,255.0	\$40,007.4	\$40,997.0	\$36,072.7	\$38,208.1	\$40,502.2
Capital Δ	\$5,706.3	\$6,278.6	\$1,265.6	\$1,947.4	\$1,838.6	\$1,666.2	\$1,313.1	\$2,599.3	\$1,817.4	\$989.6

Source: Company Data, Financial statements and Tigress Research

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**Company Report – Research Update**

Report Basis	LTM	LTM	LTM	LTM	LTM	LTM	LTM	NTM	5 Yr	3 Yr	Current
Reported Period Ending	12/25/2011	12/30/2012	12/29/2013	12/28/2014	12/27/2015	12/25/2016	12/31/2017	Average	Average	Average	Trend
Return on Market Value (NOPAT / MV)	5.04%	5.47%	5.50%	6.20%	6.85%	5.71%	5.75%	5.94%	6.25%	5.73%	
Return on Enterprise Value (NOPAT / EV)	6.51%	7.42%	7.27%	8.16%	10.43%	7.69%	7.75%	8.19%	8.76%	7.72%	
Return on Capital (NOPAT / Average Capital)	18.88%	18.31%	19.79%	21.48%	15.35%	15.79%	15.91%	18.14%	17.54%	15.85%	
Cost of Capital (WACC)	6.85%	6.89%	7.45%	6.71%	6.07%	6.76%	6.76%	6.77%	6.51%	6.76%	
Economic Return Spread	12.03%	11.42%	12.35%	14.77%	9.28%	9.03%	9.10%	11.37%	11.03%	9.07%	
Capital Charge	\$1,712.1	\$2,135.0	\$2,587.7	\$2,440.1	\$2,321.4	\$2,703.1	\$2,723.8	\$2,437.4	\$2,488.2	\$2,713.4	
Economic Profit (EP)	\$3,007.4	\$3,537.4	\$4,290.6	\$5,369.2	\$3,549.2	\$3,614.4	\$3,642.1	\$4,072.1	\$4,177.6	\$3,628.2	
Economic Profit Improvement (EPI)	\$1,379.3	\$530.0	\$753.3	\$1,078.5	(\$1,820.0)	\$65.2	\$27.7	\$121.4	(\$225.4)	\$46.5	
EP Growth	84.72%	17.62%	21.30%	25.14%	-33.90%	1.84%	0.77%	6.40%	-2.31%	1.30%	
Economic Profit Margin on Sales	18.45%	17.29%	16.85%	19.91%	14.81%	15.20%	15.05%	16.81%	16.64%	15.13%	
Economic Profit Per Share	\$1.81	\$2.08	\$2.50	\$3.19	\$2.19	\$2.44	\$2.45	\$2.48	\$2.61	\$2.44	
GAAP Earnings Per Share	\$2.68	\$3.19	\$3.73	\$4.81	\$3.06	\$3.30	\$4.68	\$3.62	\$3.72	\$3.99	
Excess Cash Per Share	\$12.57	\$16.00	\$17.97	\$18.24	\$19.57	\$19.35	\$19.50	\$18.23	\$19.05	\$19.42	
<b>Performance Drivers</b>											
Sales Growth	39.63%	25.53%	24.51%	5.87%	-11.15%	-0.75%	1.78%	8.80%	-2.01%	0.51%	
Sales Growth Trend (ROC Sales Growth)	27.95%	31.17%	24.92%	13.32%	-4.34%	-4.91%	0.77%	12.03%	1.36%	-2.07%	
EBITDAR Margin	63.28%	59.61%	57.08%	58.44%	58.86%	60.38%	59.23%	58.87%	59.23%	59.81%	
EBITDAR Growth	37.11%	18.25%	19.23%	8.39%	-10.52%	1.83%	-0.17%	7.43%	-0.10%	0.83%	
NOPBT Margin	36.43%	34.35%	32.25%	33.49%	30.17%	32.58%	32.08%	32.57%	32.08%	32.33%	
NOPBT Growth	44.25%	18.37%	16.89%	9.95%	-19.95%	7.18%	0.21%	6.49%	-0.94%	3.70%	
NOPAT Margin	28.96%	27.73%	27.01%	28.96%	24.50%	26.57%	26.65%	26.95%	26.68%	26.61%	
NOPAT Growth	38.25%	20.19%	21.26%	13.53%	-24.83%	7.61%	2.10%	7.55%	-1.23%	4.86%	
Economic Profit Margin on Sales (EP / Sales)	18.45%	17.29%	16.85%	19.91%	14.81%	15.20%	15.05%	16.81%	16.64%	15.13%	
Economic Profit Growth	84.72%	17.62%	21.30%	25.14%	-33.90%	1.84%	0.77%	6.40%	-2.31%	1.30%	
Economic Return Spread (ROC-WACC)	12.03%	11.42%	12.35%	14.77%	9.28%	9.03%	9.16%	11.37%	11.03%	9.09%	
Economic Return Ratio ( ROC / WACC)	275.65%	265.68%	265.81%	320.04%	252.89%	233.71%	235.51%	267.63%	268.88%	234.61%	
Economic Profit Momentum (ΔEP/Capital)	4.95%	1.55%	2.13%	2.89%	-4.65%	0.16%	0.07%	0.42%	-0.53%	0.11%	
Economic Profit Momentum Margin (ΔEP/Sales)	8.46%	2.59%	2.96%	4.00%	-7.60%	0.27%	0.11%	0.45%	-1.11%	0.19%	
Capital Growth	25.78%	22.55%	3.71%	5.50%	4.92%	4.25%	0.77%	8.19%	4.89%	2.51%	
Capital Turns	0.59X	0.60X	0.72X	0.72X	0.61X	0.58X	0.59X	0.65X	0.64X	0.59X	
EVC Acceleration Margin	11.82%	3.25%	3.68%	4.23%	-6.75%	0.27%	0.12%	0.50%	-0.93%	0.19%	
EVC Acceleration Spread	6.46%	2.12%	2.43%	3.10%	-5.01%	0.17%	0.07%	0.30%	-0.62%	0.12%	
<b>Risk Factors</b>											
Free Cash Flow (NOPAT - Δ Capital)	(\$986.9)	(\$606.2)	\$5,612.8	\$5,861.8	\$4,032.0	\$4,651.3	\$6,137.0	\$3,910.3	\$4,848.4	\$5,394.1	
Free Cash Flow Rate (FCF / Capital)	-3.54%	-1.78%	15.86%	15.70%	10.29%	11.39%	14.91%	10.29%	12.46%	13.15%	
Free Cash Flow Yield (FCF / MV)	-1.05%	-0.58%	4.49%	4.65%	4.71%	4.20%	5.50%	3.49%	4.52%	4.85%	
Total Debt / Total Capital	5.36%	1.29%	0.91%	0.75%	28.62%	29.36%	29.36%	12.18%	19.57%	29.36%	
Total Debt / EBITDAR	14.47%	3.60%	2.21%	1.77%	79.50%	83.50%	84.29%	34.12%	54.93%	83.90%	
Excess Cash	\$21,163.2	\$27,348.2	\$30,336.5	\$30,292.8	\$29,393.2	\$28,596.1	\$0.0	\$29,193.3	\$29,427.4	\$14,298.1	
Financial Leverage ((Total Debt - Excess Cash) /	-21.01%	-25.93%	-24.01%	-23.82%	-21.22%	-15.00%	10.83%	-22.00%	-20.01%	-2.08%	
Pension Leverage (Net Pension Liability / MV)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
Equity Risk Index (S&P 500 = 1.00)	1.10	1.08	1.08	1.10	1.03	1.03	1.03	1.06	1.05	1.03	
Stock Price Volatility	3.93	3.73	2.75	2.92	3.68	3.96	3.96	3.41	3.52	3.96	
Sales Index (NL Sales)	9.70	9.93	10.15	10.20	10.08	10.08	10.09	10.09	10.12	10.09	
Market Value Index (NL Market Value)	11.45	11.55	11.74	11.74	11.36	11.61	11.62	11.60	11.57	11.62	
Size Index (NL Sales: MV)	10.57	10.74	10.94	10.97	10.72	10.85	10.86	10.84	10.85	10.85	
Beta	1.15	1.12	1.11	1.14	1.04	1.05	1.05	1.09	1.08	1.05	
TFP Adjusted Beta	1.10	1.08	1.08	1.10	1.03	1.03	1.03	1.06	1.05	1.03	
Stock Price Volatility	3.93	3.73	2.75	2.92	3.68	3.96	3.96	3.41	3.52	3.96	
<b>Valuation Measures</b>											
Total Economic Market Value (MV)	\$93,629.8	\$103,768.0	\$125,001.7	\$126,005.6	\$85,688.6	\$110,734.1	\$111,583.0	\$110,239.6	\$107,476.1	\$111,158.6	
Economic Enterprise Value	\$72,466.6	\$76,419.8	\$94,665.2	\$95,712.8	\$56,295.4	\$82,138.0	\$82,767.7	\$81,046.2	\$78,048.7	\$82,452.8	
Equity Market Value	\$92,137.6	\$103,329.3	\$124,680.4	\$125,725.9	\$74,478.3	\$98,744.7	\$99,501.7	\$105,391.7	\$99,649.6	\$99,123.2	
Total Capital	\$28,386.2	\$34,740.7	\$36,094.3	\$38,121.7	\$40,069.3	\$41,705.4	\$42,025.2	\$38,146.3	\$39,965.5	\$41,865.3	
Market Value Created MVC (MV - Capital)	\$65,243.6	\$69,027.3	\$89,907.4	\$87,883.9	\$45,619.3	\$69,028.7	\$69,557.9	\$72,093.3	\$67,510.6	\$69,293.3	
MVC Margin (MVC / Sales)	400.37%	337.43%	349.07%	325.93%	190.42%	290.30%	287.43%	298.83%	271.13%	288.85%	
MVC Spread (MVC / Capital)	229.84%	198.69%	246.32%	230.54%	113.85%	165.51%	165.51%	188.99%	168.92%	165.51%	
Current EVC Value (EP / WACC)	\$43,897.0	\$51,334.7	\$57,627.9	\$80,011.9	\$58,488.9	\$53,495.5	\$53,905.6	\$60,112.2	\$64,155.3	\$53,700.6	
Current Operations Value COV	\$68,888.0	\$82,318.2	\$92,383.4	\$116,373.9	\$96,743.9	\$93,502.9	\$94,902.6	\$96,184.9	\$102,363.4	\$94,202.7	
Current Operations Value Per Share	\$41.55	\$48.42	\$53.87	\$69.15	\$59.79	\$63.01	\$57.87	\$58.65	\$64.18	\$60.31	
Future Growth Value (MVC - EVA Value)	\$24,741.7	\$21,449.8	\$32,618.3	\$9,631.6	(\$11,055.3)	\$17,231.2	\$16,680.4	\$14,054.7	\$5,112.7	\$16,955.8	
Future Growth Value Reliance (FGV / MV)	26.43%	20.67%	26.09%	7.64%	-12.90%	15.56%	14.95%	12.75%	4.76%	15.25%	
Share Price	\$50.29	\$62.47	\$67.38	\$75.06	\$53.22	\$62.75	\$62.75	\$64.18	\$63.68	\$62.75	
Dividend Yield	1.66%	1.54%	1.93%	2.14%	3.49%	3.30%					
Total Shareholder Return (TTM)	14.54%	25.76%	9.79%	13.54%	-25.60%	21.21%	0.00%	2.27%	-0.78%	-1.46%	
MV to IC Ratio	3.30X	2.99X	3.46X	3.31X	2.14X	2.66X	2.66X	2.89X	2.69X	2.66X	
EV / EBITDAR Multiple	7.03X	6.27X	6.51X	6.07X	3.99X	5.72X	5.77X	5.71X	5.30X	5.75X	
EV / NOPBIT Multiple	12.21X	10.88X	11.53X	10.60X	7.97X	10.60X	10.66X	10.33X	9.75X	10.63X	
EV / NOPAT Multiple	15.35X	13.47X	13.76X	12.26X	9.59X	13.00X	12.83X	12.45X	11.71X	12.92X	
EV / EP Multiple	24.10X	21.60X	22.06X	17.83X	15.86X	22.73X	22.73X	19.90X	18.68X	22.73X	
Future Growth Value (% of MV)	26.43%	20.67%	26.09%	7.64%	-12.90%	15.56%	14.95%	12.75%	4.76%	15.25%	
Current Operations Value (% of MV)	73.57%	79.33%	73.91%	92.36%	112.90%	84.44%	85.05%	87.25%	95.24%	84.75%	
Market Value (COV + FGV %)	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	
Basic Shares Outstanding	1,658.0	1,700.0	1,715.0	1,683.0	1,618.0	1,484.0	1,640.0	1,640.0	1,595.0	1,562.0	

Source: Company Data, Financial statements and Tigress Research

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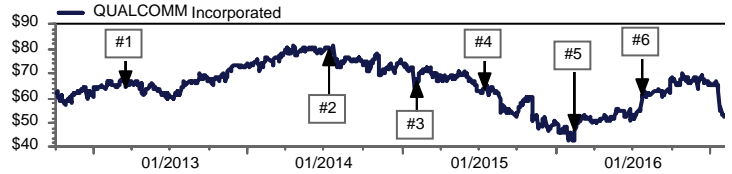
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**Ratings History**

QUALCOMM Incorporated (QCOM-US)				
Item #	Date	Research Action	Rating	Price
#6	07/22/2016	Reiterate Rating	Buy	\$61.15
#5	02/16/2016	Reiterate Rating	Buy	\$46.73
#4	07/15/2015	Reiterate Rating	Buy	\$63.10
#3	02/04/2015	Reiterate Rating	Buy	\$66.96
#2	07/11/2014	Reiterate Rating	Buy	\$79.60
#1	03/18/2013	Initiation of Coverage	Strong Buy	\$64.56


**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**

<b>Excess Cash per Share:</b>	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.
<b>EBITDAR:</b>	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.
<b>NOPAT:</b>	Net Operating Profit after Tax. Represents a company's after-tax cash operating profit excluding financing costs.
<b>Total Invested Capital:</b>	Total Invested Capital the total cash investment that shareholders and debt holders have made during the life of company.
<b>Return on Capital:</b>	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.
<b>Cost of Capital:</b>	Is the proportionately weighted cost of each category of capital – common equity, preferred equity and debt.
<b>Economic Profit:</b>	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.
<b>Current Operations Value:</b>	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.
<b>Future Growth Value:</b>	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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<b>Sell:</b>	Expect price decline or significant relative market and industry underperformance over the next 12 months.

**Rating Distribution (02/03/2017)**

<b>Companies Under Coverage</b>		<b>Relationship Companies Under Coverage*</b>	
<b>#</b>	<b>%</b>	<b>#</b>	<b>%</b>
16	15%	0	0%
49	44%	4	80%
38	36%	1	20%
6	5%	0	0%
0	0%	0	0%
<b>Total</b>	<b>109</b>	<b>4</b>	<b>100%</b>

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**About Tigress Financial Partners LLC**

Tigress Financial Partners is a specialized financial services firm providing expertise and services in investment banking, investment research, asset management, corporate advisory and trade execution services.

Tigress Financial Partners provides its services to corporate entities, institutional investors, high-net worth individual investors, public and private pensions, federal, state and municipal governments.

Tigress Financial Partners LLC is a registered broker dealer and registered investment advisor with the Securities and Exchange Commission (SEC) and a member of the Financial Industry Regulatory Authority (FINRA), the Municipal Securities Rulemaking Board (MSRB) and a member of the Securities Investor Protection Corporation (SIPC).

Tigress Financial Partners LLC is a Woman-Owned Business Enterprise (WBE) and is nationally certified by WBENC, the Women's Business Enterprise National Council.

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