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Garmin Ltd. (GRMN-US)

Consumer Electronics

- We reiterate our Buy rating on GRMN as new product introductions and product line expansions are creating a re-acceleration of growth with 2019 becoming a record year.
- Business Performance will continue to accelerate driven by new product introductions along with ongoing strength in GRMN's Aviation, Fitness, Marine, and Outdoor product lines.
- GRMN introduces the new ultra-luxury MARQ™ collection of smart watches incorporating the company's strength in Aviation, Automotive, Fitness, Marine, and Outdoor.
- GRMN acquires TACX, a leading manufacturer of indoor training bikes and smart trainers, expanding its fitness portfolio to the indoor training market.
- GRMN was recently selected as a Tier 1 partner by BMW to design and manufacture vehicle infotainment components.
- GRMN's industry-leading position as an OEM and aftermarket supplier of avionics and flight deck solutions continues to drive revenue growth.
- GRMN continues to experience strong Marine revenue growth driven by both new product introductions and complementary acquisitions.
- GRMN's significant cash and cash flow enable it to fund new product development and strategic complementary acquisitions along with enhancing shareholder returns through ongoing dividend increases.
- GRMN is on our Research Focus List and is in our Focused Opportunity Portfolio.

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Company Note
Garmin Ltd. (GRMN-US)
Consumer Electronics

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Research Action:

Reiterate rating

Rating: Buy

Prior Rating: Buy

Price 03/18/2019: \$83.95

52 Week High / Low: \$85.50

\$57.01

Key Data: (TTM as of Dec-18)

Excess Cash per Share: \$13.49

Annual Dividend: \$2.12

Dividend Yield: 2.53%

Avg. Volume (30 Day): 1.8M

Shares Outstanding: 189.5M

Float: 128.3M

Short Interest: 7.0M

SI % / Float 5.47%

Equity MV: \$15,905.3M

Sales TTM: \$3,347.4M

Beta: 0.83

EBITDAR: \$1,506.8M

NOPAT: \$692.7M

Total Invested Capital: \$4,459.7M

Return on Capital: 17.54%

Cost of Capital: 6.73%

Economic Profit: \$426.9M

Market Value Added: \$11,647.4M

Current Operations Value: \$10,289.7M

Future Growth Value: \$5,817.4M

- **We reiterate our Buy rating on GRMN as new product introductions and product line expansions are creating a re-acceleration of growth with 2019 becoming a record year.** GRMN continues to experience growth across all key business lines including Aviation, Automotive, Fitness, Marine, and Outdoor. GRMN will further benefit from several new product introductions including the recently announced MARQ™ line of ultra-luxury and technologically-advanced smart watches. Along with its acquisition of indoor fitness company TACX, Garmin has announced new automotive OEM infotainment integration wins, including recently being selected by BMW as an infotainment component provider. GRMN's strong brand equity and incredibly innovative capabilities will drive increasing Return on Capital, growth in Economic Profit, and greater shareholder value creation. GRMN's strong balance sheet and cash flow will continue to fund its new product development, as well as complementary acquisitions to increase revenue, and will further allow it to create additional shareholder value through ongoing dividend increases. We believe significant upside in the shares exists from current levels and continue to recommend purchase.
- **Business Performance will continue to accelerate driven by new product introductions along with ongoing strength in GRMN's Aviation, Fitness, Marine, and Outdoor product lines.** For the 12 months ending December 2018, Net Sales Revenue increased 8.44% Y/Y from \$3.09 billion to \$3.35 billion. We estimate a further increase of 7% to a record \$3.58 billion over the NTM. Economic Operating Cash Flow (EBITDAR) increased 16.54% Y/Y from \$1.29 billion to \$1.51 billion over the LTM. We forecast a further increase of 4% to \$1.57 billion over the NTM. Net Operating Profit After Tax (NOPAT) increased 0.6% Y/Y from \$688.7 million to \$692.7 million over the LTM. We forecast a further increase of 3.6% to \$717.4 million over the NTM. Return on Capital (ROC) declined from 19.13% to 17.54% over the LTM. We forecast an increase to 19.97% over the NTM. Economic Profit declined 4% Y/Y from \$444.6 million to \$426.9 million over the LTM. We forecast an increase of 7.6% to \$459.3 million over the NTM. We believe additional upside to our expectation exists as the potential exists for better-than-expected positive contributions of new product introductions as well as additional upside from new OEM wins.

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- **GRMN introduces the new ultra-luxury MARQ™ collection of smart watches incorporating the company's strength in Aviation, Automotive, Fitness, Marine, and Outdoor.** The new MARQ line consists of five models offering features and capabilities to support the pursuits of flying, racing, sailing, exploring, and athletic performance. The new watches will be available in Q2 and have a price range at retail from \$1,500-\$2,500. GRMN continues to expand its dominant position in smart wearables with these new feature-rich upmarket product offerings. GRMN's strong brand equity will enable it to successfully create a new market for the high-end smart wearables. GRMN is also targeting high-end retailers for the distribution of its new MARQ line including the Bloomingdale's division of Macy's (M-US, Buy Rated) , Nordstrom's (JWN-US, Buy Rated), and the Jared division of Signet Jewelers (SIG-US, Non-Rated), and will most likely experience demand from other luxury retailers for these products expanding GRMN's brand awareness. GRMN continues to experience strong demand for its current line of feature-rich advanced smart wearables. The global smart wearable market including health and fitness tracker market is expected to exceed \$48 billion by 2023 driven by the ongoing adoption of fitness tracking applications and the increase in demand for wireless health monitoring devices, according to recent research by P&S Market Research. GRMN's customer base has above-average income and is extremely passionate about its pursuits and wants the most high-end feature-rich products.
- **GRMN acquires TACX, a leading manufacturer of indoor training bikes and smart trainers, expanding its fitness portfolio to the indoor training market.** Tacx is a leading manufacturer of innovative indoor training bikes and smart trainers including the revolutionary NEO bike and highly regarded NEO 2 trainer that measures speed, power, and cadence, offering a highly realistic ride simulation, combined with ride and training videos and software for creating training plans and providing workout analysis. GRMN will integrate its line of smart wearables to measure heart rate and O₂ consumption and other functionality to create a powerful indoor workout and training experience. The TACX acquisition is another opportunity for GRMN to extend its innovative ability and expertise further into a new fitness vertical. GRMN's strong brand equity and reputation for high quality and innovative products could help it take on current indoor-cycling leader Peloton. The expansion into this new fitness vertical creates a new dynamic business line to drive additional growth as GRMN leverages the expanded addressable market that it creates.

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- **GRMN was recently selected as a Tier 1 partner by BMW to design and manufacture vehicle infotainment components.** GRMN will work with BMW to create hardware and software functionality that incorporates navigation for guidance and points of interest along with in-car entertainment including music and video and provide Bluetooth and Wi-Fi in-car connectivity. GRMN will manufacture the components in its OEM qualified production facilities in both the U.S. and Europe and will establish a new facility in Europe to further support this new initiative. GRMN's Automotive Group leverages its expertise in navigation, interface, and hardware design; its complex system integration including Avionics, and Marine divisions develop comprehensive and integrated infotainment systems. GRMN is also incorporating in-car connectivity and infotainment to many of its smart wearables including recently launching a Mercedes-Benz branded version of the GRMN vivoactive 3 GPS smart watch which monitors the driver's vital health metrics. GRMN also has an app that provides full control of a Tesla (TSLA-US, Neutral-rated) from a Fenix smart watch. We expect to see more automotive OEM wins driven by GRMN's strong brand equity and innovative abilities and extensive auto manufacturer relationships.
- **GRMN's industry-leading position as an OEM and aftermarket supplier of avionics and flight deck solutions continues to drive revenue growth.** Aviation revenue increased 20% Y/Y with a gross margin of 75% driven by key new product introductions including its G5 indicator system, GFCTM 500/600 autopilots, and TXi displays. GRMN's acquisition of leading electronic flight planning and service provider FltPlan.com further enhances its aviation business product offerings. FltPlan.com is one of the world's largest flight planning companies creating more than 6.3 million flight plans annually and currently has over 165,000 registered users. FltPlan.com provides electronic flight planning, scheduling, and trip support services. The acquisition includes the website FltPlan.com and the FltPlan Go mobile app. The FltPlan.com acquisition further enhances Garmin's leading position as a provider of state-of-the-art avionics and flight support systems and services. GRMN was also selected by Gulfstream to provide its ADS-B system for its G280 aircraft. ADS-B (Automatic Dependent Surveillance-Broadcast) is a surveillance technology which determines an aircraft's position based on satellite navigation and broadcasts its location, enabling the aircraft to be tracked by air traffic control ground stations. GRMN will continue to benefit from the FAA-mandated transition to ADS-B which has to be completed by 2019 as the installations drive additional avionics upgrades as well. Tactical Air Support has selected GRMN's tandem integrated flight deck for its fleet of supersonic F-5 fighter aircraft. GRMN won Supplier of the Year Awards from Airbus and Embraer and was ranked number one in product support for the 15th consecutive year.

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- **GMRN continues to experience strong Marine revenue growth driven by both new product introductions and complementary acquisitions.** GMRN's Marine revenue increased 28% Y/Y with a gross margin of 59% driven by new product introductions and recent acquisitions. GRMN produces industry-leading Marine Navionics along with chartplotters, fishfinders, and Marine entertainment systems. In 2017, GRMN acquired a leading developer of crowdsourcing marine data, ActiveCaptain, combining smart boat technology with social networking thus enabling boaters to share marine data for increased safety and enjoyment of boating. GRMN also enables users to share data with others through its QuickDraw community, a cloud-based platform to create maps and HD images to share with other boaters. GRMN's strong brand equity and innovative product line continue to drive significant OEM wins and aftermarket sales. GRMN also received the prestigious Supplier of the Year award from IBBI (Independent Boat Builders, Inc.).
- **GRMN's significant cash and cash flow enable it to fund new product development and strategic complementary acquisitions along with enhancing shareholder returns through ongoing dividend increases.** GRMN has a long history of consistently increasing its dividend and recently announced a 5.25% increase to its quarterly dividend from \$0.57 a share to \$0.60 a share effective in June. GRMN currently has \$2.55 billion, \$13.49 per share, in excess cash and we expect Economic Operating Cash Flow (EBITDAR) of \$1.57 billion over the NTM further enabling additional investments in R&D and new product development, along with the ability to fund strategic acquisitions to expand its product lines and product offerings.
- **GRMN is on our Research Focus List and is in our Focused Opportunity Portfolio.** GMRN's innovative ability and market-leading products best position it to benefit from several investment trends including the ongoing use of smart wearables to monitor fitness and health as well as being the leading provider of aviation and marine navigation technology. We also believe GMRN will start to penetrate opportunities in automotive infotainment systems from both aftermarket products and new OEM wins.

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Investment Thesis

GRMN is the leader in navigation-based products and applications. GRMN continues to introduce innovative new products that maximize the value of GPS information. The growth of its wearable/outdoor product business along with leadership positions in Aviation and Marine electronics will continue to grow through new product introductions, acquisitions, and OEM partnerships. GRMN's market-leading positions in Aviation and Electronics are now driving market leadership in wearables as well. GRMN's strong brand equity and incredibly innovative capabilities will drive increasing Return on Capital, growth in Economic Profit, and greater shareholder value creation. GRMN's strong balance sheet and cash flow will continue to fund its new product development and growth, and ongoing dividend increases.

Company Overview

Garmin Ltd. (GRMN-US) is the leading manufacturer of navigation, communication, and fitness equipment incorporating Global Positioning System (GPS) technology. Garmin designs and manufactures a diverse product line of fixed mount and portable GPS-enabled products and other communication, navigation, and sensor-based information devices. Garmin also manufactures some of the most technically-advanced and feature-rich line of smart wearables and fitness trackers. Garmin sells its products globally through a network of independent dealers, distributors, and retail stores. Garmin products are manufactured in China, Taiwan, and the United States.

Garmin operates and reports its revenue in five Business Segments:

Aviation: (18% of revenue) includes GPS enabled navigation and communication electronic flight instrumentation systems, automatic flight control systems, traffic advisory systems, along with portable and wearable aviation navigation devices and mobile applications.

Auto: (19% of revenue) includes personal navigation devices (PNDs), OEM GPS navigation and infotainment solutions, cameras, and mobile applications.

Fitness: (26% of revenue) includes fitness, cycling, running, and activity tracking devices and platforms for connecting and sharing data with other users.

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Marine: (13% of revenue) includes products designed for commercial and recreational marine navigation and communications. Marine products include autopilot systems, chartplotters, fishfinders, marine instruments, radar, and sounders along with wrist-worn devices sailing and entertainment products.

Outdoor: (24% of revenue) includes action cameras, dog tracking/training devices, golfing devices, and other types of adventure handheld and wearable devices.

Garmin reports revenue by three Geographic Segments: The Americas (48% of revenue), EMEA (36% of revenue), and APAC (16% of revenue).

Garmin Ltd. (GRMN-US)
Consumer Electronics
Financial Data

Report Basis	LTM	LTM	LTM	LTM	LTM	LTM	NTM	5 Yr	3 Yr	Current
Reported Period Ending	12/28/2013	12/27/2014	12/26/2015	12/31/2016	12/30/2017	12/29/2018	12/31/2019	Average	Average	Trend
Net Sales Revenue	\$2,631.9	\$2,870.7	\$2,820.3	\$3,018.7	\$3,087.0	\$3,347.4	\$3,582.5	\$3,028.8	\$3,151.0	\$3,465.0
<i>Sales Growth</i>	-3.09%	9.07%	-1.76%	7.03%	2.26%	8.44%	7.02%	5.01%	5.91%	7.73%
<i>Sales Growth Trend</i>	-2.47%	4.21%	2.58%	3.52%	4.17%	5.97%	7.59%	4.09%	4.55%	6.78%
Economic Operating Cash Flow (EBITDAR)	\$1,099.7	\$1,213.3	\$1,076.6	\$1,202.8	\$1,292.9	\$1,506.8	\$1,566.2	\$1,258.5	\$1,334.2	\$1,536.5
<i>EBITDAR Margin</i>	41.78%	42.27%	38.17%	39.85%	41.88%	45.01%	43.72%	41.44%	42.25%	44.37%
<i>EBITDAR Growth</i>	4.17%	10.33%	-11.27%	11.73%	7.49%	16.54%	3.94%	6.96%	11.92%	10.24%
Net Operating Profit Before Tax (NOPBT)	\$637.3	\$721.6	\$553.1	\$628.9	\$676.1	\$821.7	\$856.1	\$680.3	\$708.9	\$838.9
<i>NOPBT Margin</i>	24.21%	25.14%	19.61%	20.83%	21.90%	24.55%	23.90%	22.41%	22.43%	24.22%
<i>NOPBT Growth</i>	2.60%	13.24%	-23.36%	13.71%	7.51%	21.54%	4.20%	6.53%	14.25%	12.87%
Cash Operating Income Tax	\$40.1	\$238.1	\$108.2	\$118.7	\$0.0	\$128.9	\$138.7	\$118.8	\$82.5	\$133.8
<i>Economic Tax Effective Rate</i>	6.30%	33.00%	19.56%	18.88%	0.00%	15.69%	16.20%	17.43%	11.52%	15.95%
Net Operating Profit After Tax (NOPAT)	\$597.1	\$483.5	\$444.9	\$510.2	\$688.7	\$692.7	\$717.4	\$564.0	\$630.6	\$705.1
<i>NOPAT Margin</i>	22.69%	16.84%	15.77%	16.90%	22.31%	20.69%	20.03%	18.50%	19.97%	20.36%
<i>NOPAT Growth</i>	10.69%	-19.03%	-7.99%	14.68%	35.00%	0.58%	3.57%	4.65%	17.50%	20.07%
Cash & Equivalents	\$2,831.4	\$2,771.9	\$2,391.9	\$2,327.2	\$2,313.5	\$2,714.9	\$2,920.9	\$2,503.9	\$2,451.9	\$2,817.9
Total Assets	\$4,879.6	\$4,693.3	\$4,499.4	\$4,525.1	\$5,010.3	\$5,382.9	\$5,791.3	\$4,822.2	\$4,972.8	\$5,587.1
Non - Interest Bearing Liabilities (NIBLs)	\$984.4	\$1,041.8	\$890.7	\$922.1	\$1,009.0	\$906.3	\$975.1	\$954.0	\$945.8	\$940.7
Net Assets	\$3,895.2	\$3,651.5	\$3,608.7	\$3,603.0	\$4,001.2	\$4,476.5	\$4,816.2	\$3,868.2	\$4,026.9	\$4,646.4
Economic Asset Adjustments	(\$75.2)	(\$0.6)	\$12.6	\$30.3	(\$49.9)	(\$16.8)	(\$18.1)	(\$4.9)	(\$12.1)	(\$17.5)
Net Operating Assets	\$3,820.0	\$3,650.9	\$3,621.3	\$3,633.3	\$3,951.3	\$4,459.7	\$4,798.1	\$3,863.3	\$4,014.8	\$4,628.9
Debt & Debt Equivalents	\$60.9	\$65.4	\$59.1	\$64.7	\$70.0	\$61.7	\$66.4	\$64.2	\$65.5	\$64.1
Equity & Equivalents	\$3,659.7	\$3,403.4	\$3,345.1	\$3,418.0	\$3,802.5	\$4,163.0	\$4,478.9	\$3,626.4	\$3,794.5	\$4,320.9
Total Capital - Financing Sources	\$3,720.6	\$3,468.8	\$3,404.2	\$3,482.7	\$3,872.5	\$4,224.7	\$4,545.3	\$3,690.6	\$3,860.0	\$4,385.0
Capital Adjustments	(\$136.0)	(\$66.0)	(\$46.5)	(\$34.4)	(\$120.0)	(\$78.5)	(\$84.5)	(\$69.1)	(\$77.6)	(\$81.5)
Net Capital Financing Sources	\$3,584.5	\$3,402.8	\$3,357.7	\$3,448.3	\$3,752.6	\$4,146.2	\$4,460.8	\$3,621.5	\$3,782.3	\$4,303.5
Net Working Capital	\$691.4	\$472.1	\$666.1	\$669.6	\$791.1	\$817.3	\$879.3	\$683.2	\$759.3	\$848.3
<i>Cost of Net Working Capital</i>	\$41.9	\$34.2	\$32.5	\$42.3	\$49.5	\$54.1	\$58.2	\$42.5	\$48.7	\$56.2
<i>% of Revenue</i>	1.59%	1.19%	1.15%	1.40%	1.60%	1.62%	1.63%	1.39%	1.54%	1.62%
Operational Capital	\$1,167.1	\$968.4	\$1,171.2	\$1,217.2	\$1,456.8	\$1,542.5	\$1,659.6	\$1,271.2	\$1,405.5	\$1,601.1
<i>Cost of Operational Capital</i>	\$72.4	\$62.8	\$61.1	\$75.6	\$90.7	\$101.0	\$108.6	\$78.2	\$89.1	\$104.8
<i>% of Revenue</i>	2.75%	2.19%	2.17%	2.51%	2.94%	3.02%	3.03%	2.56%	2.82%	3.02%
Productive Capital	\$1,386.6	\$1,186.5	\$1,416.8	\$1,522.2	\$1,866.6	\$1,959.6	\$2,108.3	\$1,590.3	\$1,782.8	\$2,034.0
<i>Cost of Productive Capital</i>	\$87.2	\$75.7	\$74.3	\$93.1	\$114.9	\$128.8	\$138.6	\$97.3	\$112.2	\$133.7
<i>% of Revenue</i>	3.32%	2.64%	2.64%	3.08%	3.72%	3.85%	3.87%	3.18%	3.55%	3.86%
Total Operating Capital	\$1,120.2	\$1,022.5	\$1,370.4	\$1,457.0	\$1,792.2	\$1,912.2	\$2,057.3	\$1,510.9	\$1,720.5	\$1,984.7
<i>Cost of Total Operating Capital</i>	\$67.6	\$63.0	\$68.3	\$89.5	\$110.2	\$124.7	\$134.2	\$91.1	\$108.1	\$129.4
<i>% of Revenue</i>	2.57%	2.20%	2.42%	2.97%	3.57%	3.73%	3.74%	2.98%	3.42%	3.74%
Non - Operating Capital	\$2,699.8	\$2,628.4	\$2,250.9	\$2,176.3	\$2,159.1	\$2,547.5	\$2,740.8	\$2,352.4	\$2,294.3	\$2,644.2
<i>Cost of Non - Operating Capital</i>	\$178.2	\$156.7	\$139.3	\$140.2	\$147.0	\$158.4	\$170.5	\$148.3	\$148.5	\$164.4
<i>% of Revenue</i>	6.77%	5.46%	4.94%	4.64%	4.76%	4.73%	4.76%	4.91%	4.71%	4.75%
Total Capital	\$3,820.0	\$3,650.9	\$3,621.3	\$3,633.3	\$3,951.3	\$4,459.7	\$4,798.1	\$3,863.3	\$4,014.8	\$4,628.9
<i>Cost of Total Capital</i>	\$245.8	\$219.7	\$207.6	\$229.7	\$257.1	\$283.1	\$304.6	\$239.5	\$256.7	\$293.9
<i>% of Revenue</i>	9.34%	7.65%	7.36%	7.61%	8.33%	8.46%	8.50%	7.88%	8.13%	8.48%
Cost of Capital (WACC)	6.56%	5.88%	5.71%	6.33%	6.78%	6.73%	6.73%	6.29%	6.62%	6.73%
Capital Structure										
Debt & Debt Equivalents	\$60.9	\$65.4	\$59.1	\$64.7	\$70.0	\$61.7	\$66.4	\$64.2	\$65.5	\$64.1
<i>Debt & Debt Equivalents % of Market Value</i>	0.66%	0.63%	0.83%	0.70%	0.62%	0.52%	0.52%	0.64%	0.61%	0.52%
Preferred Equity	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
<i>Preferred Equity % of Market Value</i>	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	\$9,111.0	\$10,289.9	\$7,038.8	\$9,137.7	\$11,169.4	\$11,861.0	\$12,761.0	\$9,899.4	\$10,722.7	\$12,311.0
<i>Common Equity % of Market Value</i>	99.34%	99.37%	99.17%	99.30%	99.38%	99.48%	99.36%	99.36%	99.39%	99.48%
Total Economic Market Value (MV)	\$9,171.9	\$10,355.4	\$7,097.9	\$9,202.5	\$11,239.4	\$11,922.7	\$12,827.4	\$9,963.6	\$10,788.2	\$12,375.0
<i>Total %</i>	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Excess Cash	\$2,699.8	\$2,628.4	\$2,250.9	\$2,176.3	\$2,159.1	\$2,547.5	\$2,740.8	\$2,352.4	\$2,294.3	\$2,644.2
Economic Enterprise Value	\$6,472.1	\$7,727.0	\$4,847.0	\$7,026.2	\$9,080.3	\$9,375.2	\$10,086.5	\$7,611.1	\$8,493.9	\$9,730.8
Average Capital	\$3,516.1	\$3,493.7	\$3,380.2	\$3,403.0	\$3,600.4	\$3,949.4	\$4,303.5	\$3,565.3	\$3,650.9	\$4,126.4
Capital Δ	\$136.8	(\$181.7)	(\$45.1)	\$90.6	\$304.2	\$393.6	\$314.6	\$112.3	\$262.8	\$354.1

Source: Company Data, Financial statements and Tigress Research

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Company Report – Research Update

Garmin Ltd. (GRMN-US)

Consumer Electronics

Financial Analysis

Report Basis	LTM	LTM	LTM	LTM	LTM	LTM	LTM	NTM	5 Yr	3 Yr	Current
Reported Period Ending	12/28/2013	12/27/2014	12/26/2015	12/31/2016	12/30/2017	12/29/2018	12/31/2019	Average	Average	Average	Trend
Return on Market Value (NOPAT / MV)	6.51%	4.67%	6.27%	5.54%	6.13%	5.81%	6.25%	5.68%	5.83%	6.03%	
Return on Enterprise Value (NOPAT / EV)	9.23%	6.26%	9.18%	7.26%	7.58%	7.39%	7.95%	7.53%	7.41%	7.67%	
Return on Capital (NOPAT / Average Capital)	16.98%	13.84%	13.16%	14.99%	19.13%	17.54%	19.97%	15.73%	17.22%	18.76%	
Cost of Capital (WACC)	6.56%	5.88%	5.71%	6.33%	6.78%	6.73%	6.73%	6.29%	6.62%	6.73%	
Economic Return Spread	10.43%	7.96%	7.45%	8.66%	12.35%	10.81%	11.63%	9.44%	10.61%	11.22%	
Capital Charge	\$230.5	\$205.5	\$193.0	\$215.5	\$244.1	\$265.9	\$286.1	\$224.8	\$241.8	\$276.0	
Economic Profit (EP)	\$366.6	\$278.0	\$251.8	\$294.7	\$444.6	\$426.9	\$459.3	\$339.2	\$388.7	\$443.1	
Economic Profit Improvement (EPI)	\$18.4	(\$88.6)	(\$26.2)	\$42.8	\$149.9	(\$17.7)	\$32.4	\$12.0	\$58.3	\$7.3	
EP Growth	5.27%	-24.17%	-9.41%	17.01%	50.88%	-3.99%	7.59%	6.06%	21.30%	1.80%	
Economic Profit Margin on Sales	13.93%	9.68%	8.93%	9.76%	14.40%	12.75%	12.82%	11.11%	12.31%	12.79%	
Economic Profit Per Share	\$1.88	\$1.44	\$1.32	\$1.56	\$2.37	\$2.26	\$2.43	\$1.79	\$2.06	\$2.35	
GAAP Earnings Per Share	\$3.13	\$1.89	\$2.40	\$2.70	\$3.70	\$3.69	\$3.73	\$2.88	\$3.36	\$3.71	
Excess Cash Per Share	\$13.83	\$13.74	\$11.89	\$11.56	\$11.51	\$13.49	\$14.51	\$12.44	\$12.19	\$14.00	
Performance Drivers											
Sales Growth	-3.09%	9.07%	-1.76%	7.03%	2.26%	8.44%	7.02%	5.01%	5.91%	7.73%	
Sales Growth Trend (ROC Sales Growth)	-2.47%	4.21%	2.58%	3.52%	4.17%	5.97%	7.59%	4.09%	4.55%	6.78%	
EBITDAR Margin	41.78%	42.27%	38.17%	39.85%	41.88%	45.01%	43.72%	41.44%	42.25%	44.37%	
EBITDAR Growth	4.17%	10.33%	-11.27%	11.73%	7.49%	16.54%	3.94%	6.96%	11.92%	10.24%	
NOPBT Margin	24.21%	25.14%	19.61%	20.83%	21.90%	24.55%	23.90%	22.41%	22.43%	24.22%	
NOPBT Growth	2.60%	13.24%	-23.36%	13.71%	7.51%	21.54%	4.20%	6.53%	14.25%	12.87%	
NOPAT Margin	22.69%	16.84%	15.77%	16.90%	22.31%	20.69%	20.03%	18.50%	19.97%	20.36%	
NOPAT Growth	10.69%	-19.03%	-7.99%	14.68%	35.00%	0.58%	3.57%	-4.65%	16.75%	2.07%	
Economic Profit Margin on Sales (EP / Sales)	13.93%	9.68%	8.93%	9.76%	14.40%	12.75%	12.82%	11.11%	12.31%	12.79%	
Economic Profit Growth	5.27%	-24.17%	-9.41%	17.01%	50.88%	-3.99%	7.59%	6.06%	21.30%	1.80%	
Economic Return Spread (ROC-WACC)	10.43%	7.96%	7.45%	8.66%	12.35%	10.81%	13.24%	9.44%	10.61%	12.02%	
Economic Return Ratio (ROC / WACC)	259.06%	235.29%	230.47%	236.74%	282.12%	260.54%	296.62%	249.03%	259.80%	278.58%	
Economic Profit Momentum (ΔEP/Capital)	0.51%	-2.60%	-0.78%	1.24%	4.00%	-0.43%	0.73%	0.29%	1.60%	0.15%	
Economic Profit Momentum Margin (ΔEP/Sales)	0.70%	-3.09%	-0.93%	1.42%	4.86%	-0.53%	0.90%	0.35%	1.92%	0.19%	
Capital Growth	3.97%	-5.07%	-1.33%	2.70%	8.82%	10.49%	7.59%	3.12%	7.34%	9.04%	
Capital Turns	0.73X	0.84X	0.84X	0.88X	0.82X	0.81X	0.80X	0.84X	0.84X	0.81X	
EVC Acceleration Margin	0.68%	-3.37%	-0.91%	1.52%	4.97%	-0.57%	0.97%	0.34%	1.93%	0.23%	
EVC Acceleration Spread	0.55%	-2.52%	-0.75%	1.27%	4.41%	-0.49%	0.82%	0.28%	1.64%	0.20%	
Risk Factors											
Free Cash Flow (NOPAT - Δ Capital)	\$460.3	\$665.2	\$490.0	\$419.5	\$384.5	\$299.1	\$402.8	\$451.7	\$367.7	\$351.0	
Free Cash Flow Rate (FCF / Capital)	12.84%	19.55%	14.59%	12.17%	10.25%	7.21%	9.03%	12.75%	9.88%	8.12%	
Free Cash Flow Yield (FCF / MV)	5.02%	6.42%	6.90%	4.56%	3.42%	2.51%	3.14%	4.76%	3.50%	2.82%	
Total Debt / Total Capital	1.70%	1.92%	1.76%	1.88%	1.87%	1.49%	1.49%	1.78%	1.74%	1.49%	
Total Debt / EBITDAR	5.53%	5.39%	5.49%	5.38%	5.42%	4.10%	4.24%	5.15%	4.96%	4.17%	
Excess Cash	\$2,699.8	\$2,628.4	\$2,250.9	\$2,176.3	\$2,159.1	\$2,547.5	\$0.0	\$2,352.4	\$2,294.3	\$1,273.8	
Financial Leverage ((Total Debt - Excess Cash) / Pension Leverage (Net Pension Liability / MV))	-28.77%	-24.75%	-30.88%	-22.95%	-18.59%	-20.85%	0.52%	-23.60%	-20.79%	-10.17%	
Equity Risk Index (S&P 500 = 1.00)	0.87	0.87	0.87	0.86	0.89	0.89	0.89	0.87	0.88	0.89	
Stock Price Volatility	3.51	3.45	3.69	3.80	3.13	2.96	2.96	3.41	3.29	2.96	
Sales Index (NL Sales)	7.88	7.96	7.94	8.01	8.03	8.12	8.18	8.01	8.05	8.15	
Market Value Index (NL Market Value)	9.12	9.25	8.87	9.13	9.33	9.39	9.46	9.19	9.28	9.42	
Size Index (NL Sales: MV)	8.50	8.60	8.41	8.57	8.68	8.75	8.82	8.60	8.67	8.79	
Beta	0.80	0.80	0.80	0.80	0.83	0.83	0.83	0.81	0.82	0.83	
TFP Adjusted Beta	0.87	0.87	0.87	0.86	0.89	0.89	0.89	0.87	0.88	0.89	
Stock Price Volatility	3.51	3.45	3.69	3.80	3.13	2.96	2.96	3.41	3.29	2.96	
Valuation Measures											
Total Economic Market Value (MV)	\$9,171.9	\$10,355.4	\$7,097.9	\$9,202.5	\$11,239.4	\$11,922.7	\$12,827.4	\$9,963.6	\$10,788.2	\$12,375.0	
Economic Enterprise Value	\$6,472.1	\$7,727.0	\$4,847.0	\$7,026.2	\$9,080.3	\$9,375.2	\$10,086.5	\$7,611.1	\$8,493.9	\$9,730.8	
Equity Market Value	\$9,111.0	\$10,289.9	\$7,038.8	\$9,137.7	\$11,169.4	\$11,861.0	\$12,761.0	\$9,899.4	\$10,722.7	\$12,311.0	
Total Capital	\$3,820.0	\$3,650.9	\$3,621.3	\$3,633.3	\$3,951.3	\$4,459.7	\$4,798.1	\$3,863.3	\$4,014.8	\$4,628.9	
Market Value Created MVC (MV - Capital)	\$5,351.9	\$6,704.5	\$3,476.6	\$5,569.2	\$7,288.1	\$7,463.0	\$8,029.2	\$6,100.3	\$6,773.4	\$7,746.1	
MVC Margin (MVC / Sales)	203.35%	233.55%	123.27%	184.49%	236.09%	222.95%	224.12%	201.41%	214.96%	223.55%	
MVC Spread (MVC / Capital)	140.10%	183.64%	96.01%	153.28%	184.45%	167.34%	167.34%	157.90%	168.71%	167.34%	
Current EVC Value (EP / WACC)	\$5,592.6	\$4,726.7	\$4,410.1	\$4,653.4	\$6,556.9	\$6,340.4	\$6,821.5	\$5,394.7	\$5,876.1	\$6,580.9	
Current Operations Value COV	\$9,108.7	\$8,220.3	\$7,790.3	\$8,056.3	\$10,157.4	\$10,289.7	\$11,124.9	\$8,960.1	\$9,527.0	\$10,707.3	
Current Operations Value Per Share	\$46.61	\$42.57	\$40.87	\$42.67	\$54.08	\$54.55	\$58.61	\$47.21	\$50.56	\$56.59	
Future Growth Value (MVC - EVA Value)	\$63.1	\$2,135.0	(\$692.4)	\$1,146.1	\$1,082.0	\$1,633.0	\$1,702.4	\$1,003.5	\$1,261.2	\$1,667.7	
Future Growth Value Reliance (FGV / MV)	0.69%	20.62%	-9.76%	12.45%	9.63%	13.70%	13.27%	10.07%	11.69%	13.48%	
Share Price	\$45.19	\$51.86	\$35.45	\$48.49	\$53.97	\$70.05	\$70.05	\$51.96	\$57.50	\$70.05	
Dividend Yield	3.98%	3.64%	5.67%	4.21%	3.78%	3.00%	3.00%				
Total Shareholder Return (TTM)	12.25%	18.40%	-25.97%	40.99%	15.08%	32.79%	0.00%	-25.82%	10.66%	21.82%	
MV to IC Ratio	2.40X	2.84X	1.96X	2.53X	2.84X	2.67X	2.67X	2.58X	2.69X	2.67X	
EV / EBITDAR Multiple	5.89X	6.37X	4.50X	5.84X	7.02X	6.22X	6.44X	6.05X	6.37X	6.33X	
EV / NOPBT Multiple	10.16X	10.71X	8.76X	11.17X	13.43X	11.41X	11.78X	11.19X	11.98X	11.60X	
EV / NOPAT Multiple	10.84X	15.98X	10.90X	13.77X	13.18X	13.53X	14.06X	13.49X	13.47X	13.80X	
EV / EP Multiple	17.65X	27.79X	19.25X	23.84X	20.42X	21.96X	21.96X	22.44X	21.85X	21.96X	
Future Growth Value (% of MV)	0.69%	20.62%	-9.76%	12.45%	9.63%	13.70%	13.27%	10.07%	11.69%	13.48%	
Current Operations Value (% of MV)	99.31%	79.38%	109.76%	87.55%	90.37%	86.30%	86.30%	89.93%	88.31%	86.52%	
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	195.4	193.1	190.6	188.8	187.8	188.6	189.8	189.8	188.4	189.2	

Source: Company Data, Financial statements and Tigress Research

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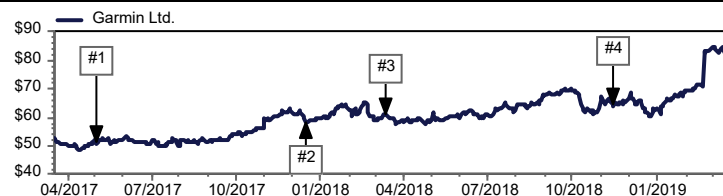
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Garmin Ltd. (GRMN-US)
Consumer Electronics
Ratings History

Garmin Ltd. (GRMN-US)				
Item #	Date	Research Action	Rating	Price
#4	11/13/2018	Reiterate Rating	Buy	\$64.98
#3	03/12/2018	Reiterate Rating	Buy	\$61.01
#2	12/15/2017	Reiterate Rating	Buy	\$58.36
#1	05/02/2017	Initiation of Coverage	Buy	\$51.24


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.

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 the 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:	Meaning:	Rating Distribution (03/18/2019)				
		Companies Under Coverage		Relationship Companies Under Coverage*		
		#	%	#	%	
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	14%	1	15%	
Buy:	Expect out-performance for the price of the stock relative to its industry peer group and general market over the next 12 months.	51	44%	5	70%	
Neutral:	Expect little or no outperformance opportunity over the next 12 months.	44	38%	1	15%	
Underperform:	Expect underperformance for the price of the stock relative to its industry peer group and general market over the next 12 months.	5	4%	0	0%	
Sell:	Expect price decline or significant relative market and industry underperformance over the next 12 months.	0	0%	0	0%	
Not Rated	No Current Research Rating	NA	NA	65	NA	
		Total	116	100%	72	100%

*Relationship Companies under research coverage are companies in which Tigress Financial Partners LLC or one of its affiliates has received compensation for investment banking or non-investment banking services from the company, affiliated entities and / or its employees within the past twelve months or expects to do so within the next three months.

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Specific Disclosures for the companies that are the subject of this Report

Company:	Disclosure:
Garmin Ltd. (GRMN-US)	14

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