

Keysight Technologies (KEYS)

\$139.66 (As of 05/21/21)

Price Target (6-12 Months): **\$147.00**

Long Term: 6-12 Months

Zacks Recommendation:

Neutral

(Since: 10/19/20)

Prior Recommendation: Outperform

Short Term: 1-3 Months

Zacks Rank: (1-5)

3-Hold

Zacks Style Scores:

VGM:B

Value: C

Growth: A

Momentum: B

Summary

Keysight's Q2 results benefited from strength across portfolio. The company is well-positioned to gain from solid demand of its semiconductor measurement solutions, as semiconductor companies are increasingly developing chips based on next-generation process technologies. Accelerated 5G deployments and higher investments in 400G/ 800G ethernet for data centers bode well. The company is also expected to benefit from investments in defense technology modernization across all main regions. Nevertheless, coronavirus crisis-induced supply chain disruptions, forex volatility due to sizeable international exposure and increasing operating expenses are major concerns. Further, uncertainties related to the trade war with China are likely to remain an overhang. Shares of Keysight have underperformed the industry in the year-to-date period.

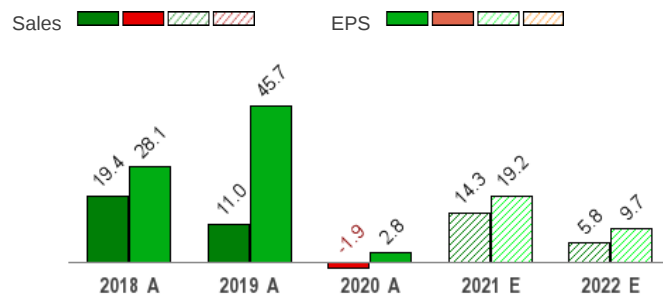
Price, Consensus & Surprise



Data Overview

52-Week High-Low	\$155.50 - \$90.62
20-Day Average Volume (Shares)	886,089
Market Cap	\$26.0 B
Year-To-Date Price Change	5.7%
Beta	0.93
Dividend / Dividend Yield	\$0.00 / 0.0%
Industry	Electronics - Measuring Instruments
Zacks Industry Rank	Top 10% (24 out of 251)

Sales and EPS Growth Rates (Y/Y %)



Last EPS Surprise	7.5%
Last Sales Surprise	1.3%
EPS F1 Estimate 4-Week Change	0.0%
Expected Report Date	NA
Earnings ESP	3.1%
P/E TTM	24.6
P/E F1	24.2
PEG F1	2.4
P/S TTM	5.6

Sales Estimates (millions of \$)

	Q1	Q2	Q3	Q4	Annual*
2022	1,223 E	1,273 E	1,267 E	1,312 E	5,101 E
2021	1,180 A	1,221 A	1,215 E	1,236 E	4,823 E
2020	1,095 A	895 A	1,011 A	1,220 A	4,221 A

EPS Estimates

	Q1	Q2	Q3	Q4	Annual*
2022	\$1.44 E	\$1.57 E	\$1.56 E	\$1.66 E	\$6.34 E
2021	\$1.43 A	\$1.44 A	\$1.41 E	\$1.57 E	\$5.78 E
2020	\$1.26 A	\$0.78 A	\$1.19 A	\$1.62 A	\$4.85 A

*Quarterly figures may not add up to annual.

The data in the charts and tables, including the Zacks Consensus EPS and sales estimates, is as of 05/21/2021. The report's text and the analyst-provided price target are as of 05/24/2021.

Overview

Based in Santa Rosa, CA, Keysight Technologies, Inc. is a provider of electronic design and test instrumentation systems. In 2013, Agilent Technologies announced that it will split into two independent companies. One of the companies was named Keysight Technologies, which became a fully independent electronic measurement company on Nov 1, 2014 and got listed on the New York Stock Exchange on Nov 3, 2014, with ticker symbol KEYS.

Keysight's suite of connected car test solutions include Virtual Drive Test Toolset, which facilitates automakers to build virtual test routes in the lab by integrating network and channel emulation capabilities, and combining data captured in the field. Moreover, the company is evolving its expertise in software test automation capabilities.

Meanwhile, KeysightCare aids customers with end-to-end scalable support model solution loaded with robust test and measurement know-how to reduce time-to-market and enhance efficiency in a cost-effective manner.

Beginning first-quarter fiscal 2020, the company's financial reporting comprises two segments — Electronic Industrial Solutions Group (EISG) and Communications Solutions Group (CSG). In fiscal 2020, the company generated non-GAAP revenues of \$4.221 billion.

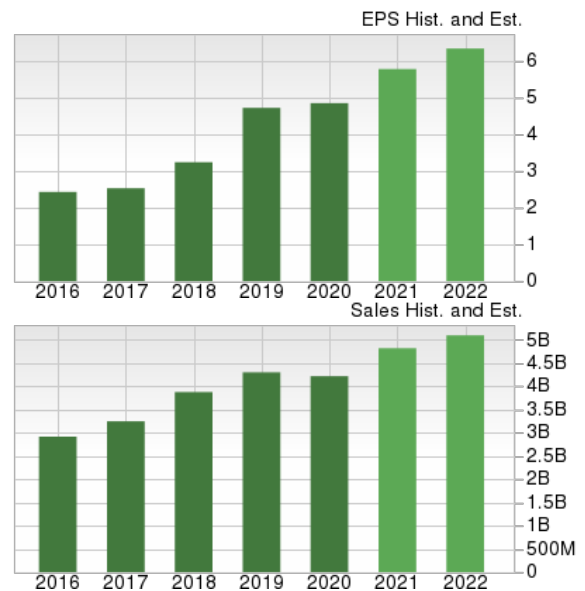
Under CSG segment (74% of the non-GAAP revenues in fiscal 2020), the company offers radio frequency (RF) and microwave test instruments and allied software, and electronic design automation (EDA) software instruments, laser source products, optical amplifiers, and other software solutions.

Notably, Ixia Solutions Group (ISG) segment reporting has been aligned with the CSG segment. ISG was formed after conclusion of Ixia buyout in Apr 18, 2017. Keysight's test and visibility solutions, and software maintenance services, were formerly under ISG.

CSG includes commercial communications (CC) and aerospace, defense & government (ADG) end markets.

EISG (26%) accounts for design verification devices; general purpose test and measurement equipment; end-to-end manufacturing systems, and material analysis devices.

The company generated 39% of non-GAAP revenues from Americas in fiscal 2020. Meanwhile, revenues from Europe and Asia Pacific came in at 16% and 45%, respectively.



Reasons To Buy:

- ▲ Electronic devices form the very fulcrum of Internet of Things (IoT) services, wireless devices, data centers and 5G technologies. The rapid adoption of these devices is increasing demand for electronics testing equipment. Further, ongoing technical advancement in mobile communications, semiconductors and automotive markets are likely to drive growth. Moreover, rising demand for power management applications is a key catalyst. Sturdy efforts toward the ongoing modification of the Internet infrastructure, evolution of smart cars & autonomous-driving vehicles bode well. Additionally, medical devices and pharmaceutical markets hold immense potential, thanks to growing usage of electronics-based testing equipment in these markets. Per MarketsandMarkets data, test and measurement equipment market is projected to be \$33.3 billion by 2026 at a CAGR of 3.7% from the estimated valuation of approximately \$27.7 billion in 2021.
- ▲ Keysight is gaining from strong industry wide growth. The company is witnessing solid adoption of its electronic design and test solutions. Strong demand for its solutions has been a key catalyst behind robust top-line growth. The company boasts a solid clientele comprising Alphabet, Amazon, Boeing, Facebook, MediaTek, Microsoft, Nvidia, Samsung, TSMC, and Tesla, to mention a few. Moreover, the company has a strong pipeline of new business bookings.
- ▲ Keysight boasts of a robust 5G portfolio. The company's 5G product design validation solutions ranging from Layer 1 to 7 enable telecom and semiconductor companies to accelerate their 5G initiatives. Further, Keysight's 5G network emulation solutions facilitate end-to-end processes from development to deployment, accelerating the 5G device architecture. The solutions offer cost-efficient test techniques with high flexibility and control capabilities, reducing time-to-market. Notably, over past three years, Keysight witnessed CAGR of more than 60% in order growth in 5G domain. Intensive infrastructure investments in 5G deployment and positive trial testing results hold promise. In fact, per ResearchAndMarkets data, global 5G market is expected to reach \$277 billion by 2025, witnessing a CAGR of around 111% between 2019 and 2025. Based on its portfolio strength, we believe that the company is well poised to gain from this robust growth prospect.
- ▲ Apart from strength in 5G domain, Keysight's efforts in other emerging growth markets like Internet of Things (IoT) and high-speed data centers, bodes well for the top line. Particularly, management's focus on Automotive and Energy, and Aerospace and Defense domains augur well in the long haul. In fact, growth in revenues from Aerospace, Defense and Government end-market deserves a special mention. Moreover, estimated higher spending on aerospace and defense as reflected in the fiscal 2021 defense budget proposal bodes well. If approved, such a stupendous budgetary amendment will reflect massive growth prospects. The company is expected to benefit from the growing proliferation of electronic content in vehicles, momentum in space and satellite applications, and rising adoption of driver-assistance systems globally.
- ▲ The company has been active on the acquisition front. Keysight recently acquired Thales Calibration Services, a subsidiary of Thales Group. The buyout is likely to expand the company's current electrical portfolio, aiding Keysight in gaining foothold in the defense and security space. Similarly, buyouts like Ixia (January 2017), Electroservices Enterprises and Anite (August 2015), and Eagleware-Elanix (August 2005) have aided growth by expanding product portfolio at various levels and adding competence and domain expertise.
- ▲ Keysight is also expanding its business through collaborations with established sector players. Notably, the company is extending Ixia's CloudLens visibility platform capabilities, enabling it to offer access to packet data in leading cloud platforms including Amazon Web Services ("AWS"), Microsoft Azure, Google Cloud Platform, Alibaba Cloud, among others. This move is expected to augment adoption of CloudLens, which in turn favors top-line growth. Furthermore, Keysight's collaborations with the likes of Softbank, OPPO, ASUS, Motorola, Verizon Communications and Qualcomm Technologies, are enabling it to achieve 5G commercialization related milestones. Additionally, tie-ups with fabless semiconductor companies engaged in providing 5G chipsets, like UNISOC, MediaTek, among others, enhances Keysight's prospects in the 5G domain, favoring top-line growth. Moreover, the company is also part of China-based Phase I Step 3 5G trials led by IMT-2020 Promotion Group. The extended collaborations augur well for the company in the long haul.
- ▲ Management execution has been good amid the coronavirus-induced crisis scenario. As of Apr 30, 2021, Keysight had cash & cash equivalents of \$1.993 billion, up from \$1.887 billion as of Jan 31, 2021. As on Apr 30, 2021, the company reported long-term debt of \$1.79 billion unchanged as of Jan 31, 2021. Solid near-term liquidity position provides the company with the flexibility required to pursue any growth strategy, whether through acquisitions or otherwise. Moreover, cash flow from operations during the fiscal second quarter of fiscal 2021 came in at \$402 million. Free cash flow was \$369 million. The strong cash flow generating ability is expected to help Keysight to continue shareholder-friendly initiatives of share repurchase. In fourth quarter of fiscal 2020, Keysight's board of directors approved a new share purchase authorization worth \$750 million. In second-quarter fiscal 2021, the company acquired approximately 1.59 million shares on the open market, at an average price of \$138.36, totaling \$220 million.

Robust adoption driven by high demand for 5G design and test solutions primarily from telecom vendors, and a strong pipeline for new business bookings are key catalysts.

Reasons To Sell:

- ▼ Keysight derives a significant proportion of its revenues from outside the United States (61% of total non-GAAP revenues in fiscal 2020), subjecting the company to exchange rate volatility. Unfavorable movement in exchange rates of foreign currencies like renminbi, euro, pound sterling, Costa Rican colon, and yen related to the U.S. dollar can adversely impact results and undermine its growth potential to some extent.
- ▼ Keysight is considerably exposed particularly to the demand environment in China, which is at present quite sluggish. Further, imposition of tariffs owing to trade war between the United States and China is anticipated to negatively impact growth prospects. The uncertainty over the trade war truce has impacted investors' confidence and is likely to remain an overhang on the company's performance.
- ▼ Moreover, the coronavirus outbreak led global supply chain disruptions and shutdown of production facilities and associated macroeconomic challenges are expected to impede Keysight's near-term growth prospects. The coronavirus crisis-induced weakness in automotive and general electronics sectors, and sluggish spending across Europe, remain major headwinds.
- ▼ Keysight's frequent acquisitions have escalated integration risks. We note that the buyouts negatively impacted the company's balance sheet in the form of high level of goodwill and net intangible assets, which comprised of 25% of total assets as of Apr 30, 2021.
- ▼ Keysight is trading at premium in terms of Price/Book (P/B). Keysight currently has a trailing 12-month P/B ratio of 7.33X. This level compares unfavorably with what the industry witnessed in the prior year. Additionally, the ratio is higher than the average level of 6.69X and is toward the high end of the valuation range in this period. Consequently, the valuation looks slightly stretched from P/B perspective.

Exposure to foreign currency fluctuations, integration risks and a leveraged balance sheet remain major concerns.

Last Earnings Report

Keysight Q2 Earnings & Revenues Beat Estimates

Keysight Technologies reported second-quarter fiscal 2021 non-GAAP earnings of \$1.44 per share, outpacing the Zacks Consensus Estimate by 7.5%. Moreover, the bottom line surged 84.6% from the year-ago quarter's figure.

Revenues increased 36% year over year to \$1.22 billion, surpassing the Zacks Consensus Estimate by 1.3%. The upside can be attributed to double-digit growth across segments as well as geographies served.

Core revenues (excluding the impact of currency and revenues from acquisitions in a year's time) rose 33% on a year-over-year basis to \$1.194 billion.

Improving aerospace and defense vertical, uptick in 5G test solutions on accelerated 5G deployment as well as continued investment in 400G and 800G Ethernet for data centers led to better-than-expected results.

Quarter in Detail

Orders increased 22% on a year-over-year basis to \$1.332 billion during the reported quarter. Notably, core orders (excluding the impact of currency and revenues from acquisitions in a year's time) moved up 19%.

Beginning first-quarter fiscal 2020, the company's financial reporting comprises two segments — Electronic Industrial Solutions Group (EISG) and Communications Solutions Group ("CSG"). Ixia Solutions Group (ISG) segment's reporting has been aligned with the CGS segment.

CSG includes commercial communications ("CC") and aerospace, defense & government ("ADG") end markets. CSG revenues of \$877 million increased 34% year over year and 32% on a core basis. CSG contributed 72% to total revenues in the fiscal second quarter.

CC revenues of \$606 million were up 30% year over year due to accelerated 5G deployments and higher investments in 400G/ 800G ethernet for data centers. Keysight also announced that it had collaborated with the likes of NEC, Fujitsu and MediaTek.

Moreover, expansion of investments in O-RAN (or Open Radio Access Network) and virtualization technologies contributed to recovery. The company's latest portfolio of O-RAN end-to-end solutions will assist O-RAN vendors and mobile operators to test security, performance and conformance of multi-vendor 5G networks that are based on O-RAN standard interfaces.

In the quarter under review, Keysight purchased Quantum Benchmark to expand its Quantum solutions portfolio.

ADG revenues of \$271 million increased 46% year over year, on higher spending and momentum in investments aimed at defense technology modernization across all main regions. Keysight is poised to gain as economies increasingly focus on electro-magnetic spectrum operations, space and advanced commercial technologies that include 5G and early 6G research.

EISG revenues increased 42% year over year and 37% on a core basis to \$344 million. Solid demand for the company's solutions in next-generation process node technology testing in semiconductor end-market and strength in general electronics sector drove growth. EISG contributed 28% to revenues in second-quarter fiscal 2021.

Keysight stated that the recovering automotive end market led to robust orders for the company's automotive solutions in the quarter under review. The company's portfolio now comprises latest solutions like power semiconductor technology, AC power emulation, millimeter wave radar, automotive ethernet, C-V2X and cyber security software systems

Also, robust software test automation capabilities are fueling growth in Software and services revenues. In the quarter under review, software and services reported double-digit revenue growth.

Revenue Breakup by Geography

Americas, Europe and Asia Pacific contributed 40%, 16% and 44%, respectively, to revenues in the reported quarter.

Revenues from Americas were \$484 million, up 47% (up 44% on a core basis) year over year on robust order demand in the CSG and EISG segments.

Revenues from Europe of \$199 million increased 36% (up 29% on a core basis) on a year-over-year basis. Solid order demand in CC and ADG vertical drove growth.

Revenues from Asia Pacific of \$538 million increased 28% (up 26% on a core basis) on a year-over-year basis. Strength in order demand across ADG and Commercial Communications domains drove growth.

Margin Highlights

Keysight reported non-GAAP gross margin of 64.5% expanded 170 basis points (bps) during the reported quarter. CSG gross margin of 64.7% expanded 160 bps, while EISG's gross margin of 64% expanded 200 bps on a year-over-year basis.

Non-GAAP operating expenses were \$467 million in the fiscal second quarter of 2021 compared with \$389 million reported in the year-ago quarter

Consequently, non-GAAP operating margin expanded 680 bps to 26.2%.

Quarter Ending	04/2021
Report Date	May 19, 2021
Sales Surprise	1.33%
EPS Surprise	7.46%
Quarterly EPS	1.44
Annual EPS (TTM)	5.68

Balance Sheet & Cash Flow

As of Apr 30, 2021, Keysight had cash & cash equivalents of \$1.993 billion compared with \$1.887 billion as of Jan 31, 2021.

As on Apr 30, 2021, the company reported long-term debt of \$1.79 billion compared with \$1.79 billion as of Jan 31, 2021.

Cash flow from operations during the quarter was \$402 million compared with \$295 million reported in the prior quarter.

Free cash flow was \$369 million compared with the previous quarter's \$267 million.

In second-quarter fiscal 2021, the company acquired approximately 1.59 million shares on the open market at an average price of \$138.36, totaling \$220 million.

Q3 Guidance

For third-quarter fiscal 2021, the company anticipates revenues in the range of \$1.205-\$1.225 billion, suggesting year-over-year growth in the range of 19-21%.

Non-GAAP earnings per share are projected to be \$1.39-\$1.45.

Recent News

On May 17, Keysight announced that it is working towards achieving net zero emissions across its operations by 2040.

On May 12, Keysight rolled out its latest offering Keysight N9042B UXA X-Series signal analyzer solution. The solution offers wide analysis bandwidth and deep dynamic range to aid customers to resolve complicated millimeter-wave (mmWave) problems.

On May 11, Keysight unveiled announced PathWave System Design 2022 and PathWave Advanced Design System (ADS) 2022 software.

On May 10, Keysight launched its latest cyber range solution to aid security teams to boost their security preparedness. The latest solution is based on the company's network security testing platform and BreakingPoint applications.

On May 6, Keysight announced that it clinched a \$39.8 million five-year contract for Versatile Diagnostic Automatic Test Station (VDATS) kits from Air Force Sustainment Center at Robins Air Force Base, Georgia.

On Apr 28, Keysight introduced a customized gallium nitride (GaN) test board solution for the company's dynamic power device analyzer / double-pulse tester (PD1500A).

On Apr 19, Keysight announced that the company's 5G test tools were utilized by Fujitsu for verification of quality of 5G wireless communications network set up at its Fujitsu Collaboration Lab in Kawasaki.

On Apr 15, Keysight rolled out Keysight S8825A Satellite and Aerospace Channel Emulation Toolset. The latest offering boasts advanced channel emulation capabilities and is aimed at ramping up deployment of non-terrestrial networks (NTN).

On Apr 14, Keysight added new solutions to its portfolio of automotive Ethernet software to assist designers and manufacturers in the automotive sector to speed up development of high-performance products to enhance advanced driver assistance systems (ADAS).

On Apr 13, Keysight revealed that Semipower Electronic Technology was leveraging the company's power device testing solutions to speed up development of new generation of semiconductors.

On Apr 1, Keysight disclosed that Taiwan-based MediaTek was leveraging the company's 5G test platform to provide modem solutions for variety of devices including PCs, mobile hotspots and smartphones.

On Mar 31, Keysight unveiled FieldFox microwave analyzer solution. The latest solution is a handheld microwave analyzer aimed at accelerating installation of radar, 5G and satellite communication systems.

On Mar 30, Keysight stated that NEC Corporation was utilizing the company's LoadCore offering. LoadCore is a scalable and cloud-native 5G core (5GC) network test solution of the company.

On Mar 25, Keysight announced that its 5G network emulation solutions have been implemented by Taiwan-based MediaTek, which is the world's fourth largest fabless semiconductor company.

On Mar 23, Keysight announced that China-based Chongqing Vehicle Testing Research Institute has selected its battery charging and discharging test equipment to validate battery characteristics in electric vehicles and enhance e-mobility architecture.

On Mar 18, Keysight announced that its 5G device test solution, based on the company's network emulation platform has been adjudged by Global TD-LTE Initiative (GTI) as the most innovative breakthrough in mobile technology.

On Mar 10, Keysight announced that its user equipment emulation (UEE) and radio access network (RAN) intelligence control (RIC) test solutions have been implemented by Industrial Technology Research Institute (ITRI) to enhance development of 5G new radio (NR) private networks.

On Mar 2, Keysight rolled out the SL1200A Series Scienlab Regenerative 3-Phase AC Emulator. The latest offering consists of software, hardware, along with consulting and support services for electric vehicles (EVs) and electric vehicle supply equipment (EVSE) charging applications.

On Feb 25, Keysight disclosed that it obtained Global Certification Forum's (GCF) approval for voice over 5G new radio (VoNR) conformance test cases in January 2021.

On Feb 24, Keysight unveiled an event-based power analysis software. The latest solution is aimed at optimizing Internet of Things (IoT) devices' battery life through power consumption analysis.

On Feb 22, Keysight announced the closure of Sanjole acquisition, aimed at enhancing protocol decoding capabilities and expertise in interoperability of 4G, 5G and other wireless technologies.

On Feb 11, Keysight rolled out latest release of the Eggplant Digital Automation Intelligence (DAI) platform. The latest release of the Eggplant DAI platform will assist in automating the testing of high-speed applications to optimize quality and delivery of digital products.

Valuation

Keysight's shares are up 5.7% in the year-to-date period and 36.9% over the trailing 12-month period. Stocks in the Zacks sub-industry and the Zacks Computer & Technology sector are up 5.9% and 9.2% in the year-to-date period, respectively. Over the past year, the Zacks sub-industry

and the sector are up 35.3% and 48.3%, respectively.

The S&P 500 index is up 11.2% in the year-to-date period and 42.5% in the past year.

The stock is currently trading at 22.92X forward 12-month earnings compared with 12.84X for the Zacks sub-industry, 26.52X for the Zacks sector and 21.7X for the S&P 500 index.

In the past five years, the stock has traded as high as 28.91X and as low as 12.69X, with a five-year median of 19.12X. Our Neutral recommendation indicates that the stock will perform in line with the market. Our \$147 price target reflects 24.12X forward 12-month earnings.

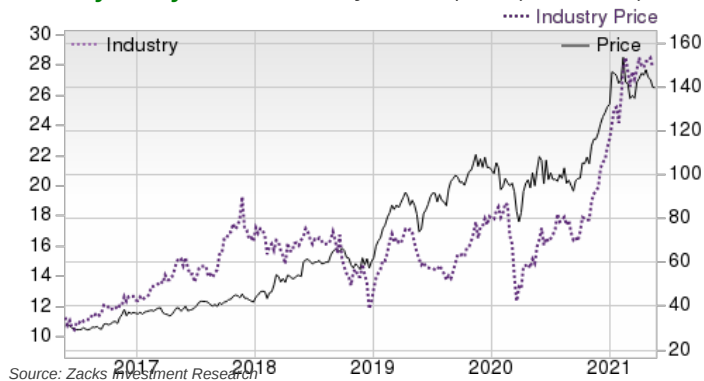
The table below shows summary valuation data for KEYS

Valuation Multiples - KEYS					
		Stock	Sub-Industry	Sector	S&P 500
P/E F12M	Current	22.92	12.84	26.52	21.7
	5-Year High	28.91	31.65	28.32	23.83
	5-Year Low	12.69	12.84	16.96	15.3
	5-Year Median	19.12	23.7	20.11	18.02
P/S F12M	Current	5.22	3.05	4.69	4.66
	5-Year High	6.03	3.86	4.88	4.74
	5-Year Low	1.63	0.99	2.81	3.21
	5-Year Median	2.94	2.03	3.53	3.71
EV/Sales TTM	Current	5.56	4.12	5.28	4.74
	5-Year High	6.71	5.11	5.8	4.84
	5-Year Low	1.8	1.12	3.08	2.64
	5-Year Median	3.5	2.42	3.99	3.63

As of 05/21/2021

Source: Zacks Investment Research

Industry Analysis Zacks Industry Rank: Top 10% (24 out of 251)



Top Peers

Company (Ticker)	Rec	Rank
ASML Holding N.V. (ASML)	Outperform	1
Camtek Ltd. (CAMT)	Outperform	1
AAON, Inc. (AAON)	Neutral	2
Amtech Systems, Inc. (ASYS)	Neutral	4
CONAGRA BRANDS (CAG)	Neutral	3
Cadence Design Systems, Inc. (CDNS)	Neutral	2
inTest Corporation (INTT)	Neutral	3
Nova Measuring Instruments Ltd. (NVMI)	Neutral	2

The positions listed should not be deemed a recommendation to buy, hold or sell.

Industry Comparison Industry: Electronics - Measuring Instruments				Industry Peers		
	KEYS	X Industry	S&P 500	ASML	CAG	NVMI
Zacks Recommendation (Long Term)	Neutral	-	-	Outperform	Neutral	Neutral
Zacks Rank (Short Term)	3	-	-	1	3	2
VGM Score	B	-	-	F	B	C
Market Cap	25.98 B	144.55 M	30.19 B	268.35 B	18.32 B	2.66 B
# of Analysts	7	2	12	3	8	2
Dividend Yield	0.00%	0.00%	1.3%	0.50%	2.88%	0.00%
Value Score	C	-	-	F	A	F
Cash/Price	0.08	0.12	0.06	0.02	0.00	0.17
EV/EBITDA	22.12	2.04	17.47	51.71	14.37	36.72
PEG F1	2.40	1.67	2.19	1.40	2.08	1.67
P/B	7.33	4.84	4.15	16.33	2.20	6.80
P/CF	22.69	25.57	17.45	58.09	12.36	43.01
P/E F1	24.37	24.17	21.75	41.87	14.53	32.33
P/S TTM	5.61	1.81	3.52	14.41	1.56	9.08
Earnings Yield	4.14%	4.14%	4.51%	2.39%	6.89%	3.09%
Debt/Equity	0.50	0.01	0.66	0.34	0.99	0.46
Cash Flow (\$/share)	6.16	0.38	6.82	11.00	3.09	2.19
Growth Score	A	-	-	D	C	B
Historical EPS Growth (3-5 Years)	22.49%	18.02%	9.39%	25.73%	3.17%	13.55%
Projected EPS Growth (F1/F0)	19.15%	34.53%	20.29%	57.55%	15.24%	41.50%
Current Cash Flow Growth	1.44%	1.44%	0.74%	35.63%	22.57%	25.66%
Historical Cash Flow Growth (3-5 Years)	18.39%	18.39%	7.37%	19.92%	4.34%	16.00%
Current Ratio	2.89	2.98	1.39	2.31	0.80	8.00
Debt/Capital	33.55%	0.88%	41.55%	25.38%	49.84%	31.52%
Net Margin	16.21%	1.98%	11.70%	28.37%	10.15%	18.41%
Return on Equity	28.46%	2.32%	16.07%	33.91%	16.95%	16.40%
Sales/Assets	0.63	0.81	0.51	0.62	0.53	0.53
Projected Sales Growth (F1/F0)	14.26%	0.00%	9.14%	36.12%	1.08%	31.03%
Momentum Score	B	-	-	B	D	B
Daily Price Change	-0.97%	-0.54%	0.09%	-1.47%	0.37%	0.19%
1-Week Price Change	-0.14%	0.56%	-0.49%	-1.32%	1.62%	6.10%
4-Week Price Change	-5.55%	-3.87%	0.85%	-4.72%	1.49%	-3.14%
12-Week Price Change	-1.31%	-4.37%	12.34%	12.72%	12.50%	12.18%
52-Week Price Change	36.84%	36.84%	46.29%	100.16%	16.80%	100.06%
20-Day Average Volume (Shares)	886,089	118,375	1,936,476	882,808	2,966,452	149,134
EPS F1 Estimate 1-Week Change	0.00%	0.00%	0.00%	0.64%	0.00%	0.00%
EPS F1 Estimate 4-Week Change	0.00%	5.56%	1.65%	16.67%	0.48%	23.85%
EPS F1 Estimate 12-Week Change	0.00%	24.70%	2.64%	21.49%	1.25%	23.85%
EPS Q1 Estimate Monthly Change	0.00%	15.79%	0.83%	0.00%	0.00%	15.79%

Source: Zacks Investment Research

Zacks Stock Rating System

We offer two rating systems that take into account investors' holding horizons: Zacks Rank and Zacks Recommendation. Each provides valuable insights into the future profitability of the stock and can be used separately or in combination with each other depending on your investment style.

Zacks Recommendation

The Zacks Recommendation aims to predict performance over the next 6 to 12 months. The foundation for the quantitatively determined Zacks Recommendation is trends in the company's estimate revisions and earnings outlook. The Zacks Recommendation is broken down into 3 Levels; Outperform, Neutral and Underperform. Unlike many Wall Street firms, we maintain a balance between the number of Outperform and Neutral recommendations. Our team of 70 analysts are fully versed in the benefits of earnings estimate revisions and how that is harnessed through the Zacks quantitative rating system. But we have given our analysts the ability to override the Zacks Recommendation for the 1200 stocks that they follow. The reason for the analyst over-rides is that there are often factors such as valuation, industry conditions and management effectiveness that a trained investment professional can spot better than a quantitative model.

Zacks Rank

The Zacks Rank is our short-term rating system that is most effective over the one- to three-month holding horizon. The underlying driver for the quantitatively-determined Zacks Rank is the same as the Zacks Recommendation, and reflects trends in earnings estimate revisions.

Zacks Style Scores

The Zacks Style Score is as a complementary indicator to the Zacks rating system, giving investors a way to focus on the highest rated stocks that best fit their own stock picking preferences.

Academic research has proven that stocks with the best Value, Growth and Momentum characteristics outperform the market. The Zacks Style Scores rate stocks on each of these individual styles and assigns a rating of A, B, C, D and F. We also produce the VGM Score (V for Value, G for Growth and M for Momentum), which combines the weighted average of the individual Style Scores into one score. This is perfectly suited for those who want their stocks to have the best scores across the board.

Value Score	C
Growth Score	A
Momentum Score	B
VGM Score	B

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Investing involves risk; principal loss is possible. There is no guarantee that companies that can issue dividends will declare, continue to pay or increase dividends.

Glossary of Terms and Definitions

52-Week High-Low: The range of the highest and lowest prices at which a stock has traded during the past year. This range is determined based on the stock's daily closing price which may differ from the intra-day high or low. Many investors use it as a technical indicator to determine a stock's current value and future price movement. The idea here is that if price breaks out from the 52-week range, in either direction, the momentum may continue in the same direction.

20-Day Average Volume (Shares): The average number of shares of a company traded in a day over the last 20 days. It is a direct indication of a security's overall liquidity. The higher the average daily trading volume, the easier it is to enter or exit the stock at a desired price with more buyers and sellers being available.

Daily Price Change: This is the percentage difference between a trading day's closing price and the prior trading day's closing price. This item is updated at 9 p.m. EST each day.

1-Week Price Change: This is the percentage change in a stock's closing price over the last 5 trading days. This change reflects the collective buying and selling sentiment over the 1-week period.

A strong weekly price increase for the stock, especially when accompanied by increased volume, is an indication of it gaining momentum.

4-Week Price Change: This is the percentage change in a stock's closing price over the last 20 trading days or past 4 weeks. This is a medium-term price change metric and an indication of the stock gaining momentum.

12-Week Price Change: This is the percentage change of a stock's closing price over the last 60 trading days or past 12 weeks. Similar to 4-week price change, this is a medium-term price change metric. It shows whether a stock has been enjoying strong investor demand, or if it has been in consolidation, or distress over this period.

52-Week Price Change: This is the percentage change in a stock's closing price over the last 260 trading days or past 52 weeks. This long-term price change metric is a good reference point for investors. Some investors seek stocks with the best percentage price change over the last 52 weeks, expecting the momentum to continue.

Market Cap: The number of outstanding common shares of a company times its latest price per share. This figure represents a company's size, which indicates various characteristics, including price stability and risk, in which investors could be interested.

Year-To-Date Price Change: Change in a stock's daily closing price in the period of time beginning the first day of the current calendar year through to the previous trading day.

of Analysts: Number of EPS estimates used in calculating the current-quarter consensus. These estimates come from the brokerage analysts tracking this stock. However, the number of such analysts tracking this stock may not match the number of estimates, as all brokerage analysts may not come up with an estimate or provide it to us.

Beta: A measure of risk commonly used to compare the volatility of a stock to the overall market. The S&P 500 Index is the base for calculating beta and carries a value of 1. A stock with beta below 1 is less risky than the market as a whole. And a stock with beta above 1 is riskier.

Dividend: The portion of earnings a company is expected to distribute to its common shareholders in the next 12 months for each share they own. Dividends are usually paid quarterly. Dividend payments reflect positively on a company and help maintain investors' trust. Investors typically find dividend-paying stocks appealing because the dividend adds to any market price appreciation to result in higher return on investment (ROI). Moreover, a steady or increasing dividend payment provides investors a cushion in a down market.

Dividend Yield: The ratio of a company's annual dividend to its share price. The annual dividend used in the ratio is calculated based on the most recent dividend paid by the company. Dividend yield is an estimate of the dividend-only return from a stock in the next 12 months. Since dividend itself doesn't change frequently, dividend yield usually changes with a stock's price movement. As a result, often an unusually high dividend yield is a result of weak stock price.

S&P 500 Index: The Standard & Poor's 500 (S&P 500) Index is an unmanaged group of securities considered to be representative of the stock market in general. It is a market-capitalization-weighted index of stocks of the 500 largest U.S. companies. Each stock's weight in the index is proportionate to its market value.

Industry: One of the 250+ groups that Zacks classifies all stocks into based on the nature of business. These groups are termed as expanded (aka "X") industries and map to their respective (economic) sectors; Zacks has 16 sectors.

Zacks Industry Rank: The Zacks Industry Rank is determined by calculating the average Zacks Rank for all stocks in the industry and then assigning an ordinal rank to it. For example, an industry with an average Zacks Rank of 1.6 is better than an industry with an average Zacks Rank of 2.3. So, the industry with the better average Zacks Rank would get a better Zacks Industry Rank. If an industry has the best average Zacks Rank, it would be considered the top industry (1 out of 250+), which would place it at the top 1% of Zacks-ranked industries. Studies have shown that roughly half of a stock's price movement can be attributed to the industry group it belongs to. In fact, the top 50% of Zacks-ranked industries outperforms the bottom 50% by a factor of more than 2 to 1.

Last EPS Surprise: The percentage deviation of a company's last reported earnings per share from the Zacks Consensus Estimate. Companies with a positive earnings surprise are more likely to surprise again in the future (or miss again if they recently missed).

Last Sales Surprise: The percentage deviation of a company's last reported sales from the Zacks Consensus Estimate.

Expected Report Date: This is an estimated date of a company's next earnings release. The information originated or gathered by Zacks Investment Research from its information providers or publicly available sources is the basis of this estimate.

Earnings ESP: The Zacks Earnings ESP compares the Most Accurate Estimate to the Zacks Consensus Estimate for the yet-to-be reported quarter. The Most Accurate Estimate is the most recent version of the Zacks Consensus EPS Estimate. The idea here is that analysts revising their estimates closer to an earnings release have the latest information, which could potentially be more accurate than what they and others contributing to the consensus had predicted earlier. Thus, a positive or negative Earnings ESP reading theoretically indicates the likely deviation of the actual earnings from the consensus estimate. However, the model's predictive power is significant for positive ESP readings only. A positive Earnings ESP is a strong predictor of an earnings beat, particularly when combined with a Zacks Rank #1 (Strong Buy), #2 (Buy) or #3 (Hold). Our research shows that stocks with this combination produce a positive surprise nearly 70% of the time.

Periods:

TTM: Trailing 12 months. Using TTM figures is an effective way of analyzing the most-recent financial data in an annualized format that helps neutralize the effects of seasonality and other quarter-to-quarter variation.

F1: Current fiscal year. This period is used to analyze the estimates for the ongoing full fiscal year.

F2: Next fiscal year. This period is used to analyze the estimates for the next full fiscal year.

F12M: Forward 12 months. Using F12M figures is an effective way of analyzing the near-term (the following four unreported quarters) estimates in an annualized manner. Instead of typically representing estimates for the full fiscal year, which may not represent the nitty-gritty of each quarter, F12M figures suggest an all-inclusive annualized estimate for the following four quarters. The annualization helps neutralize the potential effects of seasonality and other quarter-to-quarter variations.

P/E Ratio: The price-to-earnings ratio measures a company's current market price per share relative to its earnings per share (EPS). Usually, the trailing-12-month (TTM) EPS, current-fiscal-year (F1) EPS estimate, or forward-12-month (F12M) EPS estimate is used as the denominator. In essence, this ratio shows what the market is willing to pay today for each dollar of EPS. In other words, this ratio gives a sense of what the relative value of the company is at the already reported level of earnings or at a future level of earnings.

It is one of the most widely-used multiples for determining the value of a company and helps comparing its valuation with that of a competitor, the industry group or a benchmark.

PEG Ratio: The price/earnings to growth ratio is a stock's P/E ratio using current fiscal year (F1) EPS estimate divided by its expected EPS growth rate over the coming 3 to 5 years. This ratio essentially determines a stock's value by factoring in the company's expected earnings growth and is thus believed to provide a more complete picture than just the P/E ratio, particularly for faster-growing companies.

P/S Ratio: The price-to-sales ratio is calculated as a company's current price per share divided by trailing 12 months (TTM) sales or revenues per share. This ratio shows what the market is willing to pay today for each dollar of TTM sales per share. The P/S ratio is at times the only valuation metric when the company has yet to become profitable.

Cash/Price Ratio: The cash-to-price ratio or Cash Yield is calculated as cash and marketable securities per share divided by the company's current share price. Like the earnings yield, which shows the anticipated yield (or return) on a stock from earnings for each dollar invested, the cash yield does the same, with cash being the source of return instead of earnings. For example, a cash/price ratio of 0.08 suggests a return of 8% or 8 cents for every \$1 investment.

EV/EBITDA Ratio: The EV/EBITDA ratio, also known as Enterprise Multiple, is calculated as a company's enterprise value (market capitalization + value of total long-term debt + book value of preferred shares - cash and marketable securities) divided by EBITDA (earnings before interest, taxes, depreciation and amortization). Usually, trailing-12-month (TTM) or forward-12-month (F12M) EBITDA is used as the denominator.

EV/Sales Ratio: The enterprise value-to-sales ratio is calculated as a company's enterprise value (market capitalization + value of total long-term debt + book value of preferred shares - cash and marketable securities) divided by annual sales. It is an expansion of the P/S valuation, which uses market value instead of enterprise value. The EV/Sales ratio is perceived as more accurate than P/S, in part, because the market capitalization does not take a company's debt into account when valuing it.

EV/CF Ratio: The enterprise value-to-cash flow ratio is calculated as a company's enterprise value (market capitalization + value of total long-term debt + book value of preferred shares - cash and marketable securities) divided by the trailing-12-month (TTM) operating cash flow. It's a measure of how long it would take to buy the entire business if you were able to use all the company's operating cash flow.

The EV/CF ratio is perceived as more accurate than the P/CF ratio, in part, because the market price does not take a company's debt into account when valuing it.

EV/FCF Ratio: The enterprise value-to-free cash flow metric compares a company's enterprise value to its trailing-12-month (TTM) free cash flow (FCF). This metric is very similar to the EV/CF ratio, but is considered a more exact measure owing to the fact that it uses free cash flow, which subtracts capital expenditures (CAPEX) from a company's total operating cash flow, thereby reflecting the actual cash flow available for funding growth activities and payments to shareholders.

P/EBITDA Ratio: The P/EBITDA ratio is calculated as a company's per share market value divided by EBITDA (earnings before interest, taxes, depreciation, and amortization). This metric is very similar to the EV/EBITDA ratio, but is considered a little less exact measure as it uses market price, which does not take a company's debt into account. However, since EBITDA is often considered a proxy for cash income, the metric is used as a measure of what the market is willing to pay today for each dollar of the company's cash profitability in the trailing 12 months (TTM) or forward 12 months (F12M).

P/B Ratio: The price-to-book ratio is calculated as a company's current price per share divided by its book value (total assets – liabilities – preferred stocks) per share. In short, the book value is how much a company is worth. In other words, it reflects the total value of a company's assets that its common shareholders would receive if it were to be liquidated. So, the P/B ratio indicates whether you're paying higher or lower than what would remain if the company went bankrupt immediately. Investors typically use this metric to determine how a company's stock price stacks up to its intrinsic value.

P/TB Ratio: The price-to-tangible-book value ratio is calculated as a the per share market value of a company divided by the value of its tangible assets (total assets – liabilities – preferred stocks – intangible assets) per share. Tangible book value is the same thing as book value except it excludes the value of intangible assets to get a step closer to the baseline value of the company.

P/CF Ratio: The price-to-cash flow ratio measures a company's per share market price relative to its trailing-12-month (TTM) operating cash flow per share. This metric is used to determine whether a company is undervalued or overvalued relative to another stock, industry or sector. And like the P/E ratio, a lower number is typically considered better from the value perspective.

One of the reasons why P/CF ratio is often preferred over P/E ratio is the fact that operating cash flow adds back non-cash expenses such as depreciation and amortization to net income. This feature helps valuing stocks that have positive cash flow but are not profitable because of large noncash charges.

P/FCF Ratio: The price-to-free cash flow ratio is an extension of P/CF ratio, which uses trailing-12-month (TTM) free cash flow per share instead of operating cash flow per share. This metric is considered a more exact measure than P/CF ratio, as free cash flow subtracts capital expenditures (CAPEX) from a company's total operating cash flow, thereby reflecting the actual cash flow available for funding activities that generate additional revenues.

Earnings Yield: The earnings yield is calculated as current fiscal year (F1) EPS estimate divided by the company's current share price. The ratio, which is the inverse of the P/E ratio, measures the anticipated yield (or return) from earnings for each dollar invested in a stock today.

For example, earnings yield for a stock, which is trading at \$35 and expected to earn \$3 per share in the current fiscal year (F1), would be 0.0857 ($3/35 = 0.0857$) or 8.57%. In other words, for \$1 invested in the stock today, the yield from earnings is anticipated to be 8.57 cents.

Investors most commonly compare the earnings yield of a stock to that of a broad market index (such as the S&P 500) and prevailing interest rates, such as the current 10-year Treasury yield. Since bonds and stocks compete for investors' dollars, stock investors typically demand a higher yield for the extra risk they assume compared to investors of U.S. Treasury-backed securities that offer virtually risk-free returns. This additional return is referred to as the risk premium.

Debt/Equity Ratio: The debt-to-equity ratio is calculated as a company's total liabilities divided by its shareholder equity. This metric is used to gauge a company's financial leverage. In other words, it is a measure of the degree to which a company is financing its operations through debt versus its own funds. The higher the ratio, the higher the risk for shareholders.

However, this ratio is difficult to compare across industry groups where ideal amounts of debt vary. Some businesses are more capital intensive than others and typically require higher debt to finance their operations. So, a company's debt-to-equity ratio should be compared with other companies in the same industry.

Cash Flow (\$/share): Cash flow per share is calculated as operating cash flow (after-tax earnings + depreciation + other non-cash charges) divided by common shares outstanding. It is used by many investors as a measure of a company's financial strength. Since cash flow per share takes into consideration a company's ability to generate cash by adding back non-cash expenses, it is regarded by some as a more accurate measure of a company's financial situation than earnings per share, which could be artificially deflated.

Current Ratio: The current ratio or liquidity ratio is a company's current assets divided by its current liabilities. It measures a company's ability to pay short-term obligations. A current ratio that is in line with the industry average or slightly higher is generally considered acceptable. A current ratio that is lower than the industry average would indicate a higher risk of distress or default. A higher number is usually better. However, a very high current ratio compared to the industry average could be an indication of inefficient use of assets by management.

Debt/Capital Ratio: Debt-to-capital ratio is a company's total debt (interest-bearing debt + both short- and long-term liabilities) divided its total capital (interest-bearing debt + shareholders' equity). It is a measure of a company's financial leverage. All else being equal, the higher the debt-to-capital ratio, the riskier the stock.

However, this ratio can vary widely from industry to industry, the ideal amount of required debt being different. Some businesses are more capital intensive than others and typically require higher debt to finance their operations. So, a company's debt-to-capital ratio should be compared with the same for its industry.

Net Margin: Net margin is calculated as net income divided by sales. It shows how much of each dollar in sales generated by a company translates into profit. For example, if a company's net margin is 15%, its net income is 15 cents for every \$1 of sales it makes.

A change in margin can reflect either a change in business conditions, or a company's cost controls, or both. If a company's expenses are growing faster than sales, its net margin will decline. However, different net margin rates are considered good for different industries, so it's better to compare net margin rates of companies in the same industry group.

Return on Equity: Return on equity (ROE) is calculated as trailing-12-month net income divided by trailing-12-month average shareholder equity (including reinvested earnings). This metric is considered a measure of how effectively management is using a company's assets to generate profits. For example, if a company's ROE is 10%, it creates 10 cents profits for every \$1 shareholder equity, which is basically the company's assets minus debt. A company's ROE deemed good or bad depends on what's normal for its peers or industry group.

Sales/Assets Ratio: The sales-to-assets ratio or asset utilization ratio or asset turnover ratio is calculated as a company's annual sales divided by average assets (average of assets at the beginning of the year and at the year's end). This metric helps investors understand how effectively a company is using its assets to generate sales. For example, a sales-to-assets ratio of 2.5 indicates that the company generated \$2.50 in sales for every \$1 of assets on its books.

The higher the sales-to-assets ratio, the better the company is performing. However, similar to many other ratios, the asset turnover ratio tends to be higher for companies in certain industries/sectors than in others. So, a company's sales-to-assets ratio should be compared with the same for its industry/sector.

Historical EPS Growth (3-5 Years): This is the average annual (trailing-12-month) EPS growth rate over the last 3-5 years. This metric helps investors see how a company's EPS has grown from a long-term perspective.

Note: There are many factors that can influence short-term numbers — a recession will reduce this number, while a recovery will inflate it. The longterm perspective helps smooth out short-term events.

Projected EPS Growth (F1/F0): This is the estimated EPS growth rate for the current financial year. It is calculated as the consensus estimate for the current fiscal year (F1) divided by the reported EPS for the last completed fiscal year (F0).

Current Cash Flow Growth: It measures the latest year-over-year change in operating cash flow. Cash flow growth tells an investor how quickly a company is generating inflows of cash from operations. A positive change in the cash flow is desired and shows that more 'cash' is coming in than going out.

Historical Cash Flow Growth (3-5 Years): This is the annualized change in cash flow over the last 3-5 years. The change in a longer period helps put the current reading into proper perspective. By looking at the rate, rather than the actual dollar value, the comparison across the industry and peers becomes easier.

Projected Sales Growth (F1/F0): This metric looks at the estimated sales growth for the current year. It is calculated as sales estimate for the current fiscal year (F1) divided by the reported sales for the last completed fiscal year (F0).

Like EPS growth, a higher rate is better for sales growth. A look at a company's projected sales growth instantly tells you what the outlook is for their products and services. However, different sales growth rates are considered good for different industries, so it's better to compare sales growth rates of companies in the same industry group.

EPS F1 Estimate 1-Week Change: The percentage change in the Zacks Consensus EPS estimate for the current fiscal year over the past week. The change in a company's consensus EPS estimate (or earnings estimate revision) has proven to be strongly correlated with the near-term price movement of its shares. It is an integral part of the Zacks Rank.

If a stock's consensus EPS estimate is \$1.10 now versus \$1.00 a week ago, that will be reflected as a 10% upward revision. If, on the other hand, it went from \$1.00 to 90 cents, that would be a 10% downward revision.

EPS F1 Estimate 4-Week Change: The percentage change in the Zacks Consensus EPS estimate for the current fiscal year over the past four weeks.

A stock's earnings estimate revision in a 1-week period is important. But it's more meaningful to look at the longer-term revision. And, of course, the 4-week change helps put the 1-week change into proper perspective.

EPS F1 Estimate 12-Week Change: The percentage change in the Zacks Consensus EPS estimate for the current fiscal year over the past 12 weeks.

This metric essentially shows how the consensus EPS estimate has changed over a period longer than 1 week or 4 weeks.

EPS Q1 Estimate Monthly Change: The percentage change in the Zacks Consensus EPS estimate for the current fiscal quarter over the past four weeks.

While the revision in consensus EPS estimate for the current fiscal year is strongly correlated with the near-term price movement of its shares, the estimate revision for the current fiscal quarter is an important metric as well, especially over the short term, and particularly as a stock approaches its earnings date. If a stock's Q1 EPS estimate decreases ahead of its earnings release, it's usually a negative sign, whereas an increase is a positive sign.