

Intel Corporation (INTC)

\$45.06 (As of 11/18/20)

Price Target (6-12 Months): **\$47.00**

Long Term: 6-12 Months

Zacks Recommendation:

Neutral

(Since: 04/08/20)

Prior Recommendation: Outperform

Short Term: 1-3 Months

Zacks Rank: (1-5)

4-Sell

Zacks Style Scores:

VGM:A

Value: A

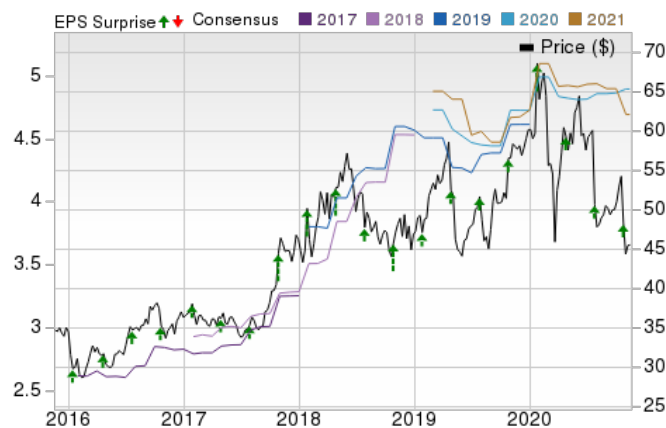
Growth: C

Momentum: A

Summary

Intel is benefiting from solid uptake of 5G networking solutions, higher modem sales and Optane bit growth. Moreover, Mobileye growth is projected to be driven by design win momentum and stabilizing automotive industry. Intel has raised 2020 guidance, anticipating momentum for 10 nanometer (nm) mobile processors used in consumer notebook PCs, to continue in the fourth quarter, led by coronavirus crisis induced remote working and online trends. However, anticipated decline in PC total addressable market, and production delays pertaining to 7 nm ramp up remain concerns. Notably, shares of Intel have underperformed the industry on a year-to-date basis. Further, sluggish data center demand across enterprise and government end-markets is likely to weigh on the top-line performance. Also, unfavorable product mix is a headwind, at least in the near term.

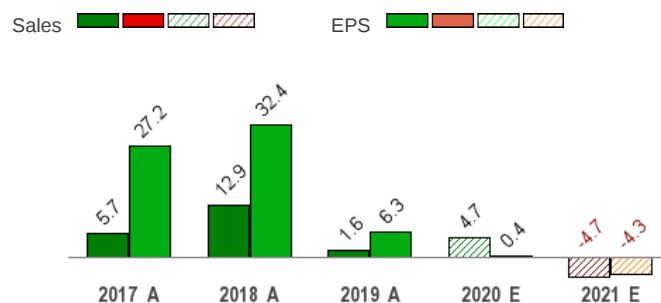
Price, Consensus & Surprise



Data Overview

52-Week High-Low	\$69.29 - \$43.61
20-Day Average Volume (Shares)	41,725,784
Market Cap	\$184.7 B
Year-To-Date Price Change	-24.7%
Beta	0.72
Dividend / Dividend Yield	\$1.32 / 2.9%
Industry	Semiconductor - General
Zacks Industry Rank	Bottom 28% (184 out of 254)

Sales and EPS Growth Rates (Y/Y %)



Last EPS Surprise	0.9%
Last Sales Surprise	0.7%
EPS F1 Estimate 4-Week Change	

Overview

Intel Corporation, the world's largest semiconductor company and primary supplier of microprocessors and chipsets, is gradually reducing its dependence on the PC-centric business by moving into data-centric businesses — such as AI and autonomous driving.

In fact, its data-centric businesses accounted for 48.3% of revenues in fiscal 2019. This underscores the fact that the company's data-centric businesses are helping it generate revenues close to what it generates from the PC business. The contribution of data-centric businesses to the total revenues has grown gradually over the past five years and should become significant in the near future.

Nevertheless, the company continues to maintain its dominant market share for microprocessors in both consumer and enterprise markets.

Intel generated \$71.97 billion in revenues in 2019.

Data Center Group (DCG), Internet of Things Group (IOTG), Mobileye, Non-Volatile memory solutions group (NSG) and Programmable solutions Group (PSG) and All Other business units form the crux of Intel's data-centric business model.

DCG accounted for 33% of revenues in 2019. The segment deals with servers, workstations and other products for cloud, enterprise, and communication infrastructure market.

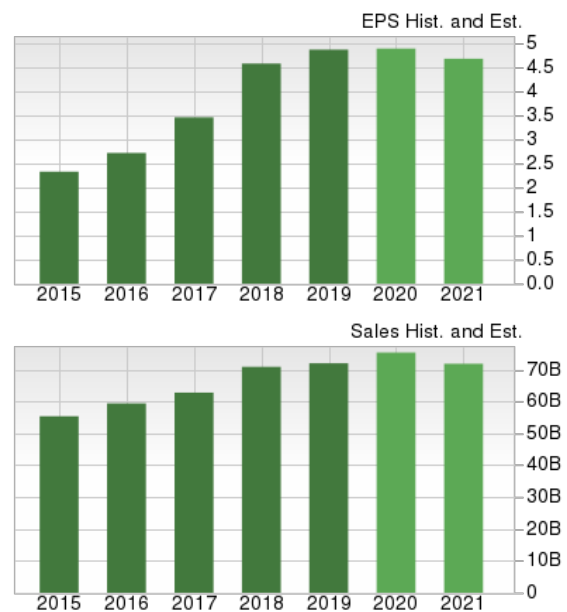
IOTG offers high-performance compute (HPC) solutions and embedded applications. The segment accounted for 5% of 2019 revenues.

NSG contributed 6% to revenues in 2019. The segment primarily offers memory and storage products like Optane and 3D NAND technology, primarily utilizing SSDs.

PSG segment that accounted for 3% of revenues offers programmable semiconductors, primarily FPGAs and structured ASICs.

Mobileye contributed 1% to revenues in 2019. The segment is engaged in developing computer vision and machine learning-based sensing, data analysis, localization, mapping, and driving policy technology for ADAS and autonomous driving. Intel acquired Mobileye in 2018.

Client Computing Group (CCG), which accounted for 52% of 2019 revenues, is the company's largest segment. The company is the dominant provider of computer CPUs. It began shipping 10 nanometer (nm) based 10th generation processors (previously referred to as Ice Lake) in 2019.



Reasons To Buy:

- ▲ Management strategy has evolved with the changing times. The primary focus area is the data center and cloud, where Intel is doing everything possible to maintain its market share and profitability. Supporting this is continued investment in the Internet of Things (IoT) and non-volatile memory/storage (memory is associated with processing speeds and it also helps increase penetration at customers). Also, while the focus was earlier on making the best computing chips and generating industry-leading margins from them, Intel now prefers to focus on a product range targeting different segments of the market. Management says that the higher-end business in more developed economies continues to look up, but the new strategy should help it get into many more device categories, where Intel products will continue to enjoy a premium based on performance and cost of ownership.
- ▲ We are particularly optimistic about the data center business. The drive to lower-cost computing devices is increasing the pressure on servers that are taking the load off these devices. As more information in various structures and formats are increasingly stored in the cloud, there is demand for a new breed of chips that are more efficient in terms of cost and energy but may not pack in quite as much compute power as in the past. This is the area where many expected lost opportunities for Intel because of its focus on compute power that often proved more expensive and also power guzzling. But Intel has made advancements in this area as well and it is now offering more integrated solutions that will likely be competitive on a cost per watt basis. The company's investments in field programmable gate array (FPGA) for acceleration (dramatically increases performances at low power) and memory to reduce latency and increase speeds are helping it develop custom solutions for big players. Adding Altera and eASIC is also aiding it in strengthening position in the networking segment. Therefore, cloud computing, virtualization, enterprise upgrades and new products (Xeon Scalable) should all drive sales in 2020.
- ▲ Intel may have been late to the mobile market, but it wasted no time getting into the Internet of Things. Market research from Gartner, IDC and other independent firms say that this market will see strong growth over the next few years. Intel's renewed focus on supplying not just chips but associated hardware puts it in a position of strength here. The Altera acquisition should also help. The biggest positive in this respect is the nascent stage of the market, which indicates potential for expanding exponentially. The company generated \$3.82 billion from IoT in 2019 (it mainly focuses on retail, transport, industrial and domestic segments). The products it has showcased thus far look good and Intel continues to introduce new products. It is also making strategic acquisitions (like Recon) to build out the portfolio and further strengthen its position in this emerging market. The company is well positioned to tap the tremendous scope for growth because it is at the forefront of leading-edge processing technology, which will increasingly be required to generate sufficient volumes at low cost.
- ▲ An improving trend in PC shipments is anticipated to favor business prospects of Intel, which continues to depend substantially on PC sales. Per Gartner's preliminary data, PC shipments in third-quarter 2020 improved 3.6% year over year to 71.4 million units. Going by the IDC report, shipments were up 14.6% on a year-over-year basis to 81.3 million in the quarter. Moreover, an improving trend in PC shipments driven by work-from-home and online learning wave is likely to positively impact PC-makers, which bodes well for Intel's growth prospects.
- ▲ Intel's acquisition of Israel-based Mobileye, an autonomous vehicle technology provider is significantly positive in our view. The acquisition will help the company rapidly penetrate the autonomous car technology market, currently dominated by the likes of NVIDIA and Qualcomm. With the buyout, Intel will now have access to Mobileye's technologies related to cameras, in-car networking, sensor-chips, roadway mapping, cloud software, machine learning and data management. This will boost its customer base going forward. In 2019, Mobileye contributed \$879 million to total revenues.

Intel's leading position in PC market, strength in servers, growing clout in software, IoT & ADAS domains and headway in process technology are positive indicators of future growth prospects.

Reasons To Sell:

- ▼ Intel is witnessing intensifying competition in the server, storage and networking markets. The server segment has always generated strong margins and Intel's powerful architecture has always been considered supreme. However, ARM is posing a challenge in the fast-growing micro server segment and its designs have seen adoption at several Intel competitors. Also, NVIDIA's acquisition of ARM Holdings, might aid the acquirer to provide full stack CPU-GPU offering, which poses a headwind for Intel. The NVIDIA alliance with IBM is likely to increase competition in the HPC accelerator segment and is another indication of competitors teaming up against Intel. The company has been also facing stiff competition from AMD in the commercial PC market.
- ▼ Delay in 7 nm process-based chips is a major concern. The company has detected a defect mode in 7 nm process, which caused yield degradation. Notably, Intel's chips utilize process technologies that are designed in-house. Moreover, the company anticipates decline in the PC total addressable market (TAM) in fourth quarter of 2020, as weakness in economy is likely to offset the spike in coronavirus-led demand, which remains a major concern. Intel anticipates the release of data center GPU design, Ponte Vecchio, in late 2021 or early 2022. The chipmaker now expects initial production shipments of first Intel-based 7 nm client CPU in late 2022 or early 2023. Moreover, initial production shipments of Intel's first in-house-based 7-nm data center CPU design is now scheduled in the first half of 2023. Meanwhile, AMD is currently leveraging Taiwan Semiconductor Manufacturing Company's 7 nm process technology, which is enabling it to deliver its advanced 7 nm chips faster to market. Further, AMD aims to deliver "Zen 4" core architecture, which is "currently in design" utilizing advanced 5 nm process technology. This is a major headwind for Intel. Intense competition is likely to lead to pricing pressure and limit margin expansion at least in the near term.
- ▼ Intel derives a significant proportion of revenues from outside the United States (78% of total revenues in fiscal 2019), 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 growth potential to some extent.
- ▼ Further, imposition of tariffs owing to trade war between the United States and China, and the coronavirus outbreak, is anticipated to negatively impact growth prospects. The uncertainty over the economic impact of coronavirus crisis has affected investors' confidence and is likely to remain an overhang on the company's performance. Intel anticipates impending global recession is to weigh on IOTG end markets, especially retail and industrial. Moreover, lower automotive production due to lockdowns, is a concern for Mobileye. Additionally, sluggish data center demand across enterprise and government end-markets remains a woe.
- ▼ Moreover, Intel has a leveraged balance sheet. As of Sep 26, 2020, the company's net debt was \$18.31 billion compared with \$24.82 billion as of Jun 27, 2020. Although declining net debt balance remains encouraging, the presence of current debt remains a concern. Further, total debt to total capital of 32.9% compares unfavorably with 31.9%, in the prior quarter. Moreover, accumulating high debt levels might restrict sufficient cash flow generation which is needed to meet future debt obligations. This may keep the company away from accessing the debt market and refinancing at suitable rates. Also, to enhance its liquidity position, the chipmaker announced in March, that it is suspending stock repurchases temporarily on account of the COVID-19 crisis. Consequently, the company must constantly generate adequate amount of operating cash flow to service its debt. However, it must be noted that on Aug 20, Intel announced that it will repurchase shares worth \$10 billion under the accelerated share repurchase (ASR) agreement by utilizing the existing cash resources. In a filing with the U.S. Securities and Exchange Commission (SEC), Intel stated that it will receive 166 million shares on Aug 21 from the counterparty financial institution after paying \$10 billion, per the terms of ASR. The final settlement will be completed by the end of 2020.

Intel's delay in launching chips based on 7 nm process, stiff competition from ARM-based devices, and impact of new product costs are major concerns amid significant foreign currency exposure.

Last Earnings Report

Intel Q3 Earnings & Revenues Top Estimates

Intel reported third-quarter 2020 non-GAAP earnings of \$1.11 per share, which beat the Zacks Consensus Estimate by 0.9%. However, the bottom line declined 22% from the year-ago quarter.

Revenues totaled \$18.333 billion, surpassing the consensus mark by 0.7%. However, the top line fell 4% on a year-over-year basis.

Segment Revenue Details

Client Computing Group or CCG (53.7% of total revenues) represents Intel's PC-centric business. The company bundles PCs, notebooks, 2-in-1s, tablets and other computing devices under the Client segment, which aids comparison with the PC market numbers provided by IDC and Gartner.

Revenues were up 1% on a year-over-year basis to \$9.847 billion. Solid notebook demand driven by remote working and online learning trends triggered by COVID-19 contributed to the top line.

Notably, Intel is adding wafer capacity to boost PC unit volumes in a bid to meet market demand. The company expanded capacity by more than 25% in 2020 and currently has three high-volume fabs producing 10 nm products to cater to customer demands.

Moreover, the chipmaker's third 10 nm manufacturing facility in Arizona, is now completely operational and Intel now projects to ship 30% higher 10 nm product volumes in 2020 compared with January anticipations.

Notably, Platform revenues increased 5% year over year to \$8.762 billion. Adjacencies revenues declined 18% from the year-ago quarter to \$1.085 billion. Notably, CCG adjacencies include modem, connected home products, wireless communications and wired connectivity.

While notebook platform volumes increased 25% year over year, desktop platform volumes declined 18%.

PC volumes grew 11% on a year-over-year basis. Further, Notebook's average selling price (ASP) declined 7% year over year, while Desktop ASP remained flat.

During the reported quarter, the chip maker introduced 11th Gen Intel Core processors integrated with Intel Iris Xe graphics (formerly dubbed "Tiger Lake"). Management noted that more than 150 designs from major PC makers are in development, with 100 designs set to hit shelves by the end of 2020. Markedly, the new processors are based on Intel's 10 nm SuperFin process technology, which offers performance enhancement when compared to a full-node transition.

Intel anticipates strong momentum in its 11th Gen Intel Core processors to aid it in gaining market share.

Data Center Group or DCG (32.2%) revenues declined 7% year over year to \$5.905 billion on sluggish data center demand across enterprise and government end-markets. Nevertheless, solid demand from Cloud service providers (CSP) limited the decline.

Platform revenues were down 11% year over year to \$5.151 billion. Adjacencies rose 34% from the year-ago quarter to \$754 million on solid uptake of 5G networking solutions.

DCG Platform unit volumes were up 4% year over year, while ASP declined 15% owing to higher networking SoC volume, and weaker enterprise and government volume.

CSP revenues advanced 15% year over year. Further, revenues from Communication service provider increased 4%. Revenues from Enterprise & Government fell 47%.

Internet of Things Group or IOTG revenues declined 33% from the year-ago quarter to \$677 million. The coronavirus crisis-induced weakness in retail, vision and industrial end markets led to year-over-year decline.

Mobileye revenues improved 2% on a year-over-year basis to \$2

Programmable Solutions Group or PSG (2.2%) revenues slumped 19% from the year-ago quarter to \$411 million, due to sluggish demand across communications and embedded segments. However, strength across cloud vertical limited decline.

Intel also has a residual segment, **All Other** (0.6%), which includes results of operations from other adjustments. The segment reported revenues of \$106 million, up 58.2% year over year.

Notably, DCG, IOTG, NSG, PSG, Mobileye and All Other business units form the crux of Intel's data-centric business model. Revenues from the data-centric businesses were \$8.486 billion (46.3% of total revenues), down 10% collectively on a year-over-year basis.

Margins

Non-GAAP gross margin in the reported quarter was 54.8%, which contracted 560 basis points (bps) on a year-over-year basis. Management had anticipated non-GAAP gross margin to be 57%.

Decline in data center ASPs, on unfavorable sales mix led to lower-than-expected gross margin levels. The shift of product mix from higher-margined enterprise and government end-markets to cloud and lower PC client ASPs, led by rise in demand for consumer and education PCs, resulted in the downside.

Non-GAAP Research & development (R&D) expenses, and Marketing, General & Administrative (MG&A) expenses decreased 0.8% year over year to \$4.655 billion.

Non-GAAP operating income declined 21.7% year over year to \$5.396 billion.

Non-GAAP operating margin contracted 650 bps on a year-over-year basis to 29.4%. Management had anticipated non-GAAP gross margin to be 30%. Lower-than-expected gross margin levels negated gains from lower spending.

Segment Operating Margin Details

Segment operating margin was 27.6%, which contracted 600 basis points (bps) on a year-over-year basis.

CCG operating margin was 36%, was down eight points on a year-over-year basis. The contraction can be attributed to higher unit costs pertaining to the production ramp up of 10 nm products.

DCG operating margin of 32% was down 17 points on a year-over-year basis owing to lower revenue base, unfavorable mix of processors, and sluggishness across enterprise and government end-markets. Also, increasing investments on the production ramp up of 10 nm 5G base station SoCs and "pre-PRQ reserves of Ice Lake server products," led to the contraction of DCG margins.

IOTG operating income came in at \$61 million, down 80% year over year, owing to weakness across retail, vision and industrial end markets.

Mobileye's operating income of \$47 million was down 30% year over year, owing to increasing investments on mobility-as-a-service (MaaS).

NSG group reported operating income of \$29 million against operating loss of \$499 million in the year-ago quarter. The increase was driven by rise in ASPs and unit cost improvements.

PSG operating income of \$40 million slumped 57% from the year-ago quarter on lower revenue base and unfavorable product mix.

All Other segment reported a loss of \$575 million compared with a loss of \$942 million reported in the year-ago quarter.

Balance Sheet

As of Sep 26, 2020, cash and cash equivalents, short-term investments and fixed-income trading asset balance were \$18.25 billion compared with \$13.53 billion as of Jun 27, 2020.

Intel anticipates momentum in consumer notebook PCs to continue in the fourth quarter, led by remote working and online trends. Also, increased supply is likely to favor results. Moreover, Mobileye growth is projected to be driven by design win momentum and stabilizing automotive industry. However, sluggish data center demand across enterprise and government end-markets and weakness in data-centric businesses remains a woe.

Non-GAAP gross margin and operating margin is anticipated to be 55% and 26.5%, respectively.

Non-GAAP earnings are likely to be \$1.10 per share.

For 2020, Intel raised guidance. The company now projects revenues of \$75.3 billion and non-GAAP earnings per share of \$4.90, compared with prior guided figures of \$75 billion and \$4.85, respectively.

Recent News

On Nov 3, per a TechCrunch article, citing confirmation from an Intel's spokesperson, it was reported that Intel acquired Cnvr.io — an Israel-based company that specializes in development of advanced machine learning (ML) models.

On Oct 29, Intel sealed SigOpt acquisition deal. Notably, San Francisco, CA-based SigOpt offers an optimization platform to aid data scientists run AI-driven modeling and simulations workloads in an enhanced manner.

On Oct 20, Intel announced that it is selling its NAND memory and storage operations to South Korea-based SK hynix for \$9 billion. The sale includes Intel's NAND component and wafer business, NAND solid state drives (SSD) business but excludes the chipmaker's Optane modules business operations. The deal also includes Intel's Dalian NAND memory manufacturing facility located in China.

On Oct 14, Intel rolled out new security technologies in its upcoming 3rd Generation Xeon Scalable Platform, dubbed "Ice Lake," in a bid to secure critical data workloads.

On Oct 2, Intel announced that its semiconductor packaging capabilities will aid the U.S. Department of Defense or DoD. Intel Federal LLC secured the second phase of its State-of-the-Art Heterogeneous Integration Prototype (SHIP) program. The SHIP program aids the U.S. government to leverage Intel's advanced semiconductor packaging capabilities in Oregon and Arizona and access Intel's expertise via its R&D and manufacturing investment.

On Sep 24, Intel's Mobileye announced that its SuperVision surround-view advanced driver-assistance system (ADAS) will power Geely Auto Group's Lynk & Co brand's highly awaited premium electric vehicle (EV) — Zero Concept. Markedly, Geely Auto Group is one of the leading auto manufacturers based out of China. Mobileye's EyeQ5 system-on-chip (SoC) combined with Geely's accelerated production expertise will aid the automaker to roll out a new suite of advanced driver-assist features to consumers as early as fall 2021.

On Sep 23, Intel introduced two new processors — Intel Atom x6000E Series and Intel Pentium and Intel Celeron N and J Series processors — that specifically have improved IoT capabilities to accelerate edge computing. These processors belong to Intel's 11th generation core processor series, dubbed "Tiger Lake."

On Sep 18, Intel announced a quarterly dividend of 33 cents per share. The quarterly dividend is payable on Dec 1, 2020, to shareholders as on Nov 7, 2020.

Valuation

Intel shares are down 24.8% in the year-to-date period and 22.2% over the trailing 12-month period. Stocks in the Zacks sub-industry and the Zacks Computer & Technology sector are up 30.3% and 29.8%, respectively, in the year-to-date period. Over the past year, the Zacks sub-industry and the sector are up 40% and 35.2%, respectively.

The S&P 500 index is up 11.2% in the year-to-date period and 15.3% in the past year.

The stock is currently trading at 9.58X forward 12-month earnings compared with 22.26X for the Zacks sub-industry, 27.07X for the Zacks sector and 22.68X for the S&P 500 index

Over the past five years, the stock has traded as high as 14.93X and as low as 8.93X, with a 5-year median of 12.36X. Our Neutral recommendation indicates that the stock will perform in line with the market. Our \$47 price target reflects 9.99X forward 12-month earnings.

The table below shows summary valuation data for INTC

Valuation Multiples - INTC					
		Stock	Sub-Industry	Sector	S&P 500
P/E F12M	Current	9.58	22.26	27.07	22.68

Industry Analysis Zacks Industry Rank: Bottom 28% (184 out of 254)



Source: Zacks Investment Research

Top Peers

Company (Ticker)	Rec	Rank
NVIDIA Corporation (NVDA)	Outperform	1
Ambarella, Inc. (AMBA)	Neutral	3
Advanced Micro Devices, Inc. (AMD)	Neutral	3
Broadcom Inc. (AVGO)	Neutral	3
QUALCOMM Incorporated (QCOM)	Neutral	3
Western Digital Corporation (WDC)	Neutral	3
Xilinx, Inc. (XLNX)	Neutral	3
Micron Technology, Inc. (MU)	Underperform	4

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

Industry Comparison Industry: Semiconductor - General				Industry Peers		
	INTC	X Industry	S&P 500	AMD	NVDA	XLNX
Zacks Recommendation (Long Term)	Neutral	-	-	Neutral	Outperform	Neutral
Zacks Rank (Short Term)	4	-	-	3	1	3
VGM Score	A	-	-	B	F	D
Market Cap	184.66 B	18.46 B	25.46 B	99.27 B	331.42 B	31.63 B
# of Analysts	13	3	14	13	12	7
Dividend Yield	2.93%	0.42%	1.51%	0.00%	0.12%	1.18%
Value Score	A	-	-	D	F	D
Cash/Price	0.10	0.12	0.06	0.02	0.03	0.10
EV/EBITDA	5.80	8.90	14.42	129.81	96.21	30.27
PEG F1	1.23	2.98	2.76	1.37	2.94	NA
P/B	2.48	1.99	3.55	25.67	23.82	12.90
P/CF	5.93	14.62	13.64	108.52	102.25	31.12
P/E F1	9.21	23.63</				

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	A
Growth Score	C
Momentum Score	A
VGM Score	A

As an investor, you want to buy stocks with the highest probability of success. That means buying stocks with a Zacks Recommendation of Outperform, which also has a Style Score of an A or a B.

Disclosures

This report contains independent commentary to be used for informational purposes only. The analysts contributing to this report do not hold any shares of this stock. The analysts contributing to this report do not serve on the board of the company that issued this stock. The EPS and revenue forecasts are the Zacks Consensus estimates, unless indicated otherwise on the reports first page. Additionally, the analysts contributing to this report certify that the views expressed herein accurately reflect the analysts personal views as to the subject securities and issuers. ZIR certifies that no part of the analysts compensation was, is, or will be, directly or indirectly, related to the specific recommendation or views expressed by the analyst in the report.

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ZIR uses the following rating system for the securities it covers. **Outperform-</**

Additional Disclosure

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Returns quoted represent past performance which is no guarantee of future results. Investment returns and principal value will fluctuate so that when shares are redeemed, they may be worth more or less than their original cost. Current performance may be higher or lower than the performance shown.

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 1

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

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

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