

Marvell Technology (MRVL)

\$27.38 (As of 01/02/20)

Price Target (6-12 Months): **\$29.00**

Long Term: 6-12 Months

Zacks Recommendation:

Neutral

(Since: 05/07/19)

Prior Recommendation: Underperform

Short Term: 1-3 Months

Zacks Rank: (1-5)

3-Hold

Zacks Style Scores:

VGM:F

Value: F

Growth: F

Momentum: F

Summary

Marvell is benefiting from continued deal wins and strong demand from enterprise and datacentre markets. Key deal wins across various OEMs are positives. Strong growth in embedded processors, driven by higher 5G shipments, is a tailwind. The company's recent acquisitions of Avera and Aquantia are expected to boost its top line. Further, the impending divestment of its Wi-Fi business to NXP Semiconductors will help Marvell focus on other high growth areas. Macroeconomic uncertainty and seasonal fall in demand for Wi-Fi products hurt the top line in the quarter. Weak revenues from the edge market due to soft demand from gaming and video surveillance markets was a dampener. Moreover, rapid migration from HDD to SSD in the PC market is a headwind. Shares have underperformed the industry in the past twelve months.

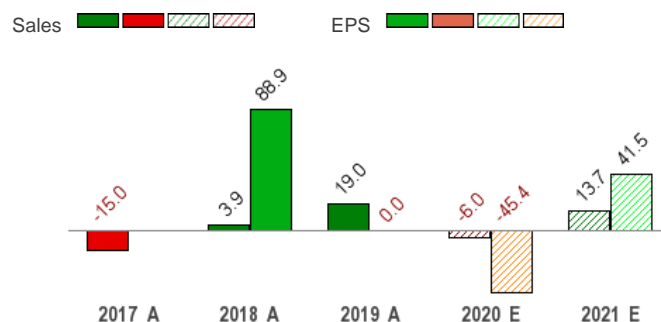
Price, Consensus & Surprise



Data Overview

52 Week High-Low	\$28.38 - \$15.99
20 Day Average Volume (sh)	6,900,781
Market Cap	\$18.4 B
YTD Price Change	3.1%
Beta	1.19
Dividend / Div Yld	\$0.24 / 0.9%
Industry	Semiconductor - Communications
Zacks Industry Rank	Top 4% (10 out of 253)

Sales and EPS Growth Rates (Y/Y %)



Last EPS Surprise	0.0%
Last Sales Surprise	0.3%
EPS F1 Est- 4 week change	-14.8%
Expected Report Date	03/05/2020
Earnings ESP	-0.6%

Sales Estimates (millions of \$)

	Q1	Q2	Q3	Q4	Annual*
2021	683 E	720 E	805 E	859 E	3,061 E
2020	662 A	657 A	662 A	711 E	2,693 E
2019	605 A	665 A	851 A	745 A	2,866 A

EPS Estimates

	Q1	Q2	Q3	Q4	Annual*
2021	\$0.14 E	\$0.18 E	\$0.27 E	\$0.33 E	\$0.92 E
2020	\$0.16 A	\$0.16 A	\$0.17 A	\$0.16 E	\$0.65 E
2019	\$0.32 A	\$0.28 A	\$0.33 A	\$0.25 A	\$1.19 A

*Quarterly figures may not add up to annual.

P/E TTM	37.0
P/E F1	42.1
PEG F1	5.8
P/S TTM	6.7

The data in the charts and tables, including the Zacks Consensus EPS and Sales estimates, is as of 01/02/2020. The reports text is as of 01/03/2020.

Overview

California-based Marvell Technology is a fabless designer, developer and marketer of analog, mixed-signal and digital signal processing integrated circuits. The company operates in Bermuda, China, Germany, Japan, Korea, Taiwan, the United Kingdom, and the United States.

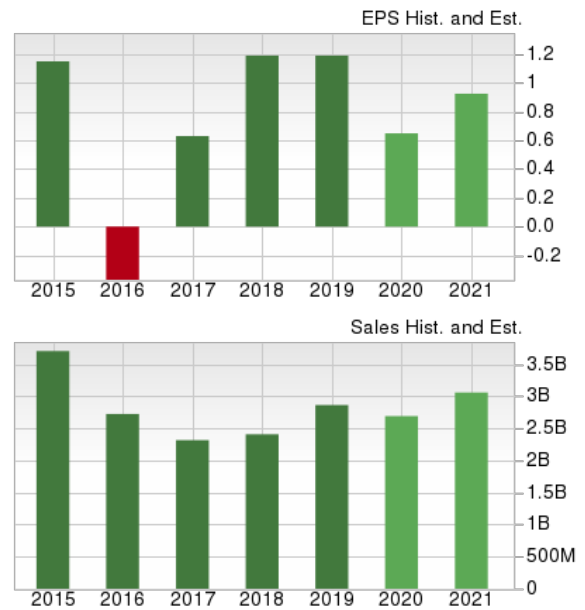
Marvell specializes in highly integrated System-on-a-Chip (SoC) and System-in-a-Package (SiP) devices based primarily on ARM designs and sells to both enterprise and consumer customers. It has a significant number of patents in design, software and reference platforms to its credit.

The product line includes application processors, controllers, switches, communications and networking processors and technologies, as well as other SoCs for printers and smart home products. They serve two broad end markets — storage and networking. To accommodate the product line of Cavium, the company started to operate under only two core businesses, **Storage** and **Networking**, third quarter of fiscal 2019 onwards. In fiscal 2019, revenues from storage made up 48% of total revenue and networking, 46%. The remaining 6% of revenues came from Others (Printing Solutions Application Processors, Communication Processors, and others).

In fiscal 2019, the company generated 42% of revenues from China, 22% from Others, 13% from Malaysia, 8% from Philippines, 6% from Thailand and the remaining 9% from United States.

End Customers such as Western Digital, Toshiba, Seagate and Wintech accounted for approximately 12%, 11%, 10% and less than 10%, respectively of Marvell's consolidated fiscal 2019 revenues.

In the semiconductor market, Texas Instruments Inc. and STMicroelectronics NV are Marvell's main competitor. Broadcom Corporation and QUALCOMM continue to be its other rivals.



Reasons To Buy:

- ▲ Marvell is a promising player in the solid state drive (SSD) controllers market. The storage market is seeing a steady increase in demand, given fast-growing data volume, especially the exponential growth in unstructured data.
- ▲ Being a fabless company, it does not have to own or operate foundries for the production of silicon. Instead, it works with independent merchant foundries and chip assemblers for the manufacturing of products. Marvell's customers are original equipment manufacturers ("OEM's") and original design manufacturers, both of which design and manufacture end market devices. This benefits the company with superior manufacturing capability, scalability, as well as flexibility to develop complex SoC and SiP devices that offer superior technology and services at competitive prices. It also frees up resources for research and development (R&D) activity that would otherwise have been locked up in capital assets. This approach permits the company to focus more on the designing, developing and marketing side, which reduces operational and financial risk.
- ▲ Marvell has initiated restructuring activities to boost operational efficiency. It is concentrating on high-growth markets like IoT. Research firm IDC quoted the Wall Street Journal that the market could nearly triple, going ahead. In 2014, the global IoT market was worth \$655.8 billion and might hit \$1.7 trillion by 2020. In its recent report, Bain predicts the global IoT market will grow to about \$520 billion in 2021, more than doubling the 2017 value of \$235 billion. Marvell's efforts to capitalize on the emerging opportunities are encouraging. We believe that these initiatives will provide the company with adequate growth opportunities in the long run.
- ▲ Moreover, Management expects strong growth in 5G-related revenues in the second half of fiscal 2021, driven by continued deployment in Korea and the beginning of higher 5G adoption in Japan and other countries. This makes us optimistic about the company's prospects.
- ▲ Marvell regularly returns value to shareholders. In fiscal 2019, the company repurchased shares worth \$104 million and returned \$148.1 million as dividends. We consider that share repurchases are a good way of returning cash to investors while at the same time boosting the company's earnings.

We believe that strong demand for Marvell's 4G LTE products could be a growth driver, going ahead.

Reasons To Sell:

- ▼ In the High Definition (HD) storage drive market, Broadcom is Marvell's main competitor as these two are the primary SoC (system on a chip) suppliers. Also, NXP Semiconductors, QUALCOMM and Texas Instruments offer various components to the market, making us increasingly cautious about growth prospect of Marvell Technology.
- ▼ Marvell depends on some big customers for a substantial portion of its net revenues. Marvell faces customer concentration risk as revenues from its top three customers accounted for approximately 33% of total revenue in fiscal 2019, which is significant. The loss of any customer may reduce orders, thereby impacting revenues and operating results.
- ▼ A substantial portion of the company's sales is derived from outside the U.S. During fiscal 2019, 2018 and 2017 approximately 85%, 95% and 94% respectively, of total revenue was garnered in currencies other than the U.S. dollar. This exposes the company to exchange rate fluctuations and counterparty default risk. Thus, an economic condition, which impacts foreign currency exchange rates, does result in transaction exposure, which leads to profit fluctuation.
- ▼ The oversupply in the NAND market which is leading to the loss of value of the SSD market, is a concern for the company. This trend is expected to continue for sometime now, which might be an overhang on its storage business. Impact of the export restrictions and accounting for the customer factory transition is expected to be an overhang on storage revenues.

Customer concentration risk and competition from Broadcom doesn't bode well for Marvel in the long haul.

Last Earnings Report

Marvell Q3 Earnings Meet Revenues Lag Estimates

Marvell reported third-quarter fiscal 2020 non-GAAP earnings of 17 cents, which matched the Zacks Consensus Estimate. However, it declined 48.5% from the year-ago quarter.

Marvell's revenues of \$662 million lagged the consensus estimate of \$664 million. Moreover, the figure declined 22% year over year. Macroeconomic uncertainty and seasonal decline in demand for Wi-Fi products hurt the top line. Nonetheless, key deal wins across various OEMs were a breather.

The company also announced that it has received all necessary approvals to divest its Wi-Fi business to NXP Semiconductors.

Quarter Details

In the end markets, storage revenues (43% of total revenues) fell 29% year over year to \$287.7 million due to weaker-than-expected revenues from the edge market on account of soft demand from gaming and video surveillance markets. Moreover, rapid migration from HDD to SSD in the PC market was a headwind.

Nonetheless, 5% sequential growth in storage revenues reflected strength in demand from enterprise and datacentre markets.

The networking business (50%) fell 17% year over year to \$330 million due to macroeconomic challenges, which continued to hurt demand from the enterprise end market. Additionally, demand for the company's Wi-Fi products declined seasonally. However, strong double-digit revenue growth in embedded processors, driven by ramped up 5G shipments, was a positive.

Other product (7%) revenues during the fiscal third quarter fell 2% on a year-over-year basis to \$44.8 million.

The company also announced that Microsoft is rolling out servers based on Marvell's ThunderX2 server processors for internal Azure development workloads. Management believes that this is a key milestone to drive further adoption of ARM-based servers across the Azure platform.

Further, the company announced that NVIDIA GPU will support Marvell's ThunderX2-based server platforms to provide powerful exascale computing solutions to HPC and cloud customers.

Continued strength in ThunderX adoption at Marvell's cloud and HPC customers might lead to revenue growth in its server processors in fiscal 2021.

Margins

Marvell's non-GAAP gross profit was \$421 million, down 23.4% on a year-over-year basis reflecting a weaker product mix due to impact of export restriction and low storage revenues. Non-GAAP gross margin contracted 110 basis points (bps) to 63.5%.

Non-GAAP operating expenses declined 4.6% year over year to \$283.3 million. Non-GAAP operating margin contracted 890 bps to 20.8%. SG&A costs remained less than 7% of revenues.

Balance Sheet

Marvell exited the quarter with cash, cash equivalents of \$438.4 million compared with \$573.5 million in the previous quarter.

The company's long-term debt totaled \$2.04 billion compared with \$1.69 billion in the previous quarter. Cash from operating activities amounted to \$65.5 million compared with \$73.14 million in the prior quarter.

During the quarter, Marvell paid dividend of around \$40 million to shareholders.

Guidance

Marvell expects to complete the divestiture of the Wi-Fi Connectivity Business to NXP in the fiscal fourth quarter. However, revenue guidance for the fiscal fourth quarter includes a full quarter of expected results from the Wi-Fi business.

Marvell projects fourth-quarter fiscal 2020 revenues of \$750 million, up or down up to 3%. The Zacks Consensus Estimate for revenues stands at \$695.24 million, suggesting a decline of 22.4% from the year-ago reported figure.

Non-GAAP earnings per share between 15 cents and 19 cents are expected. The consensus mark of 21 cents indicates a 16% decline.

A 25% sequential increase in networking revenues, driven by full-quarter contributions from Avera and Aquantia, is expected.

Management expects Avera to contribute \$300 million in revenues for fiscal 2021. Moreover, Avera is expected to bring an additional \$4 billion to Marvell's addressable market across the datacenter, carrier, enterprise and automotive end markets.

Further, the company expects operating expenses to decline from the second quarter of fiscal 2021 onward, for full-year fiscal 2021.

In the fiscal fourth quarter, Marvell's 5G shipments are expected to remain strong. However, demand from the enterprise end market is likely to remain weak, partially due to a decline in customers from China.

Quarter Ending 10/2019

Report Date	Dec 03, 2019
Sales Surprise	0.34%
EPS Surprise	0.00%
Quarterly EPS	0.17
Annual EPS (TTM)	0.74

A decline in Wi-Fi revenues is also expected to remain an overhang.

Storage revenues are likely to remain flat or inch up sequentially. Revenues from datacenter and enterprise end markets should continue to grow, offsetting weakness in the edge and client markets.

Management expects strong growth in 5G-related revenues in the second half of fiscal 2021, driven by continued deployment in Korea and the beginning of higher 5G adoption in Japan and other countries.

Recent News

On Dec 3, Marvell announced that NVIDIA's GPU support on its ThunderX suite of Arm-based server processors is now available. The parallel processing capabilities of NVIDIA GPUs will greatly complement the computational performance and memory bandwidth of Marvell's 64-bit Armv8-A based server processor, ThunderX2, providing a powerful energy-efficient exascale computing.

On the same day, Marvell and NXP Semiconductors jointly announced that they have received all necessary regulatory approvals for NXP's acquisition of Marvell's Wi-Fi business.

On Nov 5, Marvell completed the acquisition of the Application Specific Integrated Circuit (ASIC) business of GLOBALFOUNDRIES, Avera Semiconductor, for approximately \$600 million. The acquisition will allow Marvell to offer a complete range of semiconductor solutions, including 5G, data center, enterprise and automotive applications.

On Oct 9, Marvell joined the NAV Alliance as a promoter, following its recent acquisition of Aquantia. The NAV Alliance, which creates an ecosystem of leading automotive manufacturers and technology providers for developing next generation in-vehicle network infrastructure, has 14 other members including Bosch, Continental, NVIDIA and Volkswagen.

On Oct 8, Marvell announced that its QLogic suite of host adapters will be used to power Hewlett Packard's ProLiant and Apollo Gen 10 servers.

On Sep 19, Marvell completed the buyout of Aquantia by purchasing all the outstanding shares of the latter at about \$13.25 per share in cash. The acquisition is expected to strengthen Marvell's portfolio of copper and optical physical layer product offerings, and bolster its position in the Multi-Gig 2.5G/5G/10G Ethernet segments.

On Aug 7, Marvell expanded its NVMe over Fabrics portfolio with two solutions, one of which powers the Toshiba Memory native NVMe-oF Ethernet SSD with Marvell's NVMe-oF SSD converter controller. The other solution is an optimized NVMe-oF Ethernet SSD controller, which will accelerate SSD makers' time to market and drive data center adoption of Ethernet Bunch of Flash (EBOF) architectures.

On Aug 1, Marvell launched the PCIe Gen4 NVMe solid-state drive (SSD) controller portfolio, to meet the higher need for lower power and strong performance in next-generation data centers and edge devices that come with the growing momentum of artificial intelligence (AI) and 5G.

Valuation

Marvell's shares have gained 11.4% in the past six months, and 72.3% over the trailing 12 months. Stocks in the Zacks sub-industry and the Zacks Computer & Technology sector have rallied 10.2% and 13.3% in the past six months, respectively. Over the past year, while the Zacks sub-industry has increased 68.6%, the sector gained 35.2%.

The S&P 500 Index has risen 9.2% in the past six months and 27.4% in the past year.

The stock is currently trading at 30.3X forward 12-month earnings, which compares with 48.01X for the Zacks sub-industry, 23.44X for the Zacks sector and 19.24X for the S&P 500 Index.

Over the past five years, the stock has traded as high as 66.15X and as low as 11.46X, with a 5-year median of 21.47X. Our Neutral recommendation indicates that the stock will perform in-line with the market. Our \$29 price target reflects 31.8X forward 12-months earnings.

The table below shows summary valuation data for MRVL

Valuation Multiples - MRVL					
		Stock	Sub-Industry	Sector	S&P 500
P/E F 12M	Current	30.3	48.01	23.44	19.24
	5-Year High	66.15	48.01	23.44	19.34
	5-Year Low	11.46	13.64	16.86	15.17
	5-Year Median	21.47	23.45	19.11	17.44
P/Sales F12M	Current	5.51	5.12	3.62	3.49
	5-Year High	6.23	5.12	3.62	3.49
	5-Year Low	1.41	1.5	2.29	2.54
	5-Year Median	3.18	2.64	2.99	3
EV/Sales TTM	Current	6.81	5.63	4.25	3.26
	5-Year High	6.81	5.63	4.25	3.3
	5-Year Low	0.57	0.9	2.54	2.14
	5-Year Median	2.74	2.6	3.42	2.79

As of 01/02/2020

Industry Analysis Zacks Industry Rank: Top 4% (10 out of 253)



Top Peers

QUALCOMM Incorporated (QCOM)	Outperform
Broadcom Inc. (AVGO)	Neutral
Cypress Semiconductor Corporation (CY)	Neutral
NVIDIA Corporation (NVDA)	Neutral
Silicon Motion Technology Corporation (SIMO)	Neutral
STMicroelectronics N.V. (STM)	Neutral
Texas Instruments Incorporated (TXN)	Neutral
Xilinx, Inc. (XLNX)	Neutral

Industry Comparison Industry: Semiconductor - Communications				Industry Peers		
	MRVL Neutral	X Industry	S&P 500	AVGO Neutral	QCOM Outperform	SIMO Neutral
VGM Score	F	-	-	C	F	C
Market Cap	18.36 B	7.14 B	23.76 B	128.24 B	101.27 B	1.83 B
# of Analysts	12	5	13	13	9	6
Dividend Yield	0.88%	0.84%	1.78%	4.03%	2.80%	2.74%
Value Score	F	-	-	C	D	C
Cash/Price	0.02	0.09	0.04	0.04	0.12	0.17
EV/EBITDA	33.35	18.54	13.97	16.17	10.55	12.13
PEG Ratio	5.62	3.31	2.02	1.30	1.54	2.42
Price/Book (P/B)	2.56	2.61	3.38	NA	21.96	3.31
Price/Cash Flow (P/CF)	16.96	16.96	13.70	9.49	21.25	13.23
P/E (F1)	41.02	37.16	18.83	13.95	21.50	16.91
Price/Sales (P/S)	6.73	3.54	2.68	5.68	4.17	4.28
Earnings Yield	2.37%	2.67%	5.30%	7.17%	4.65%	5.92%
Debt/Equity	0.28	0.28	0.72	-214.36	2.74	0.00
Cash Flow (\$/share)	1.61	1.80	6.94	33.97	4.17	3.83
Growth Score	F	-	-	B	F	D
Hist. EPS Growth (3-5 yrs)	7.93%	20.49%	10.56%	28.58%	-8.63%	10.74%
Proj. EPS Growth (F1/F0)	-45.45%	15.85%	7.41%	8.51%	16.51%	22.82%
Curr. Cash Flow Growth	70.60%	18.05%	14.83%	7.86%	-22.34%	56.89%
Hist. Cash Flow Growth (3-5 yrs)	14.93%	3.88%	9.00%	48.32%	-10.62%	33.74%
Current Ratio	2.88	2.88	1.23	1.44	1.88	6.50
Debt/Capital	22.13%	22.13%	42.92%	54.64%	73.24%	0.00%
Net Margin	-16.47%	-1.24%	11.08%	12.06%	18.07%	13.16%
Return on Equity	3.59%	4.40%	17.10%	46.16%	77.78%	13.22%
Sales/Assets	0.27	0.59	0.55	0.32	0.72	0.63
Proj. Sales Growth (F1/F0)	-6.04%	5.70%	4.20%	10.72%	-9.84%	19.43%
Momentum Score	F	-	-	D	C	A
Daily Price Chg	3.07%	0.92%	0.33%	2.02%	0.52%	-0.08%
1 Week Price Chg	2.81%	0.31%	0.13%	-0.77%	-0.06%	3.02%
4 Week Price Chg	16.74%	6.19%	3.31%	3.60%	7.39%	11.98%
12 Week Price Chg	17.54%	16.29%	9.70%	17.47%	18.30%	33.27%
52 Week Price Chg	73.59%	58.42%	30.28%	39.59%	59.23%	52.94%
20 Day Average Volume	6,900,781	352,086	1,603,615	2,329,526	7,281,727	211,496
(F1) EPS Est 1 week change	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
(F1) EPS Est 4 week change	-14.82%	0.00%	0.00%	-1.83%	0.00%	0.00%
(F1) EPS Est 12 week change	-18.28%	-2.04%	-0.57%	-1.83%	5.72%	8.80%
(Q1) EPS Est Mthly Chg	-12.70%	0.00%	0.00%	-7.03%	0.00%	0.00%

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 have an excellent 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	F
Growth Score	F
Momentum Score	F
VGM Score	F

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.

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