



# Teradyne, Inc. (TER)

Updated May 10<sup>th</sup>, 2021 by Derek English

## Key Metrics

<b>Current Price:</b>	\$115	<b>5 Year CAGR Estimate:</b>	0.7%	<b>Market Cap:</b>	\$20.2 B
<b>Fair Value Price:</b>	\$79	<b>5 Year Growth Estimate:</b>	8.0%	<b>Ex-Dividend Date:</b>	05/24/21
<b>% Fair Value:</b>	145%	<b>5 Year Valuation Multiple Estimate:</b>	-7.2%	<b>Dividend Payment Date:</b>	06/18/21
<b>Dividend Yield:</b>	0.3%	<b>5 Year Price Target</b>	\$116	<b>Years Of Dividend Growth:</b>	0
<b>Dividend Risk Score:</b>	C	<b>Retirement Suitability Score:</b>	F	<b>Last Dividend Increase:</b>	0%

## Overview & Current Events

Teradyne, Inc (NDQ: TER) was founded in 1960 and is a leading global supplier of automation equipment for test and industrial applications. The company designs and sells automatic test systems to test semiconductors and complex electronics systems in most industries. Teradyne has four reportable operating segments. The semiconductor test segment is the largest and accounts for 72% of revenue; the System test segment accounts for 13%, while industrial automation and wireless test account for the final 15%. Interestingly, Revenues from Taiwan, China, and Korea make up 66% of all revenue, while the United States accounts for only 10%.

Teradyne released Q1 2021 results on April 28<sup>th</sup>, 2021. The company posted a strong quarter where both sales and EPS increased 11% to set a new company record. Each segment grew double digits except for the wireless test segment, which saw a 6% decline due to cellular demand softening. Operating profit increased 29.7% to \$226 million, and gross margin was 59.3%, up from 57.6% the previous year. Teradyne's free cash flow was minus \$1 million; however, the company paid out \$17 million in dividends and bought back \$45 million in shares as part of the new \$2.0 billion share repurchase program approved in January 2021.

## Growth on a Per-Share Basis

Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2026
<b>EPS</b>	\$1.49	\$0.94	\$0.70	\$0.83	\$0.97	\$1.43	\$2.19	\$2.35	\$2.60	\$4.28	<b>\$4.40</b>	<b>\$6.47</b>
<b>DPS</b>	---	---	---	\$0.18	\$0.24	\$0.24	\$0.28	\$0.36	\$0.36	\$0.40	<b>\$0.40</b>	<b>\$0.64</b>
<b>Shares<sup>1</sup></b>	186	186	190	202	211	199	195	175	166	166	<b>160</b>	<b>155</b>

Teradyne has recorded solid and consistent growth over the last 11 years, with earnings per share growing every year since 2013. Since 2011 the earnings per share growth rate has come in at an average of 12.4% per annum. With the current shortage in semiconductors, companies like Intel (INTC) and, more importantly, Taiwan Semiconductor Manufacturing (TSM) have reported an intention to invest from \$20 billion to \$100 billion. Investment in semiconductors is good news for a company that develops test systems for semiconductors. While the test products concentrate on a limited number of customers, they drive significant demand for Teradyne's products. Therefore, we believe a growth rate of 8% on average per annum is reasonable. In addition, the company began its dividend policy in 2014, and even though they do not increase them every year, the average five-year growth rate is 10.8%. The company currently allocates 12% of capital to dividends, focusing on buybacks, accounting for 60% of capital allocation.

## Valuation Analysis

Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Now	2026
<b>Avg. P/E</b>	9.8	16.4	23.9	23.1	19.9	14.6	15.7	16.9	19.3	18.6	<b>26.1</b>	<b>18.0</b>
<b>Avg. Yld.</b>	0.0%	0.0%	0.0%	0.9%	1.2%	1.1%	0.8%	0.9%	0.7%	0.5%	<b>0.3%</b>	<b>0.6%</b>

<sup>1</sup> Share count in millions

Disclosure: This analyst has no position in the security discussed in this research report, and no plans to initiate one in the next 72 hours



# Teradyne, Inc. (TER)

Updated May 10<sup>th</sup>, 2021 by Derek English

During the last ten years, Teradyne has traded with a P/E multiple of 17.8 on average. However, since the market decline in March 2020, the company has risen from \$43 to \$124. This huge run has seen the company trade at a historically high 26 P/E multiple. In addition, as a test supplier to some of the major semiconductor companies, the recent shortage has helped the company trade at a premium. Still, we believe that over the next five years, they will trade closer to their mean and return to a P/E ratio of 18.

## Safety, Quality, Competitive Advantage, & Recession Resiliency

Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2026
Payout	0%	0%	0%	22%	25%	17%	13%	15%	14%	9%	9%	10%

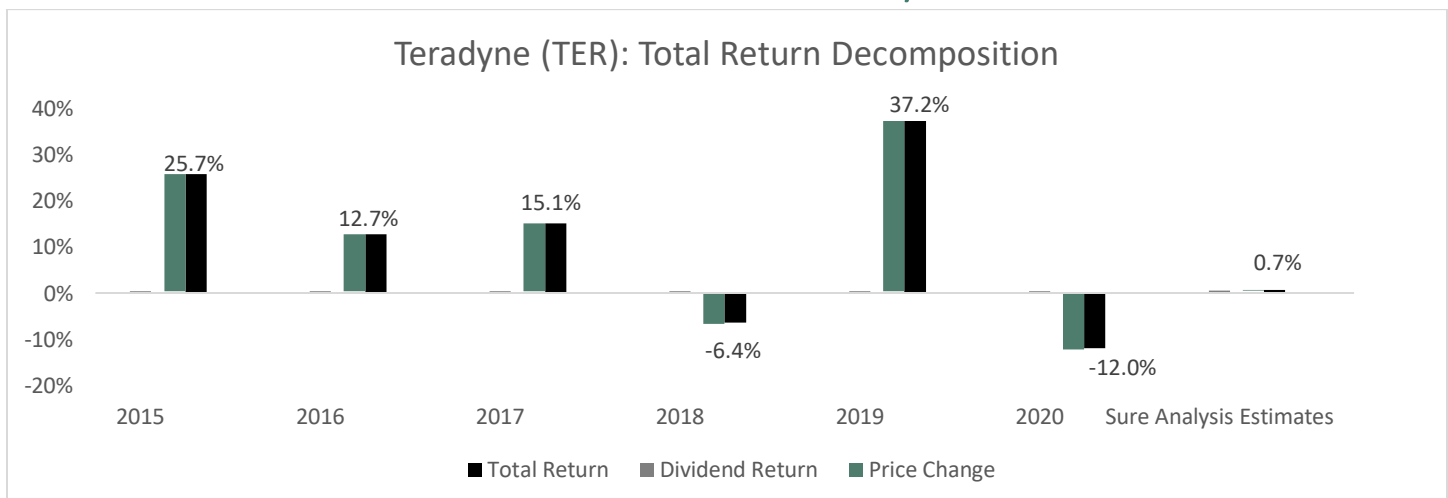
Collaborative robots are in an upward market trend within the industrial automation segment that expects to expand 44.5% on average per year up to 2025. As a result, the company has been diversifying into collaborative robots by acquiring companies like universal robots and MiR in recent years, leaving the company in an excellent position to take advantage of this growth.

Semiconductor Assembly and test providers (OSAT) use Teradyne's products because they help them improve product quality while reducing the time to market. In addition, Teradyne's FLEX test platform architecture is a leading technology designed for high-efficiency multi-site testing. However, Teradyne is reliant on a limited number of customers for its business. For example, in 2020, TSM accounted for 15% of consolidated revenues, and its top 5 customers accounted for 36% of revenue. If either of these customers moves to a competitor, it could hurt Teradyne's potential future growth. In addition, Teradyne's recession resistance would likely prove poor given its exposure to a highly cyclical industry.

## Final Thoughts & Recommendations

Teradyne has seen impressive earnings growth over the last decade, including a 64% rise from 2019 to 2020. In addition, the company boasts a rock-solid balance sheet where they carry very little debt. The recent semiconductor chip shortage has prompted significant companies such as TSM to declare their intention to invest billions of dollars. As Teradyne's largest customer, this is an encouraging sign for the stability of future growth. However, the surge in the share price since October 2020 has limited future upside potential and diminishes investors' potential returns. We value the company currently at \$79, which is 45% below its current price with a 5-year price target of \$116. With an expected annual total return rate of just 0.7%, we rate the stock a sell. However, they remain a good company for the watchlist, particularly if the share price returns to an 18 P/E ratio.

## Total Return Breakdown by Year



[Click here to rate and review this research report. Your feedback is important to us.](#)

Disclosure: This analyst has no position in the security discussed in this research report, and no plans to initiate one in the next 72 hours



# Teradyne, Inc. (TER)

Updated May 10<sup>th</sup>, 2021 by Derek English

## Income Statement Metrics

Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>Revenue</b>	1,429	1,657	1,428	1,648	1,640	1,753	2,137	2,101	2,295	3,121
<b>Gross Profit</b>	712	886	809	879	916	959	1,221	1,220	1,340	1,786
<b>Gross Margin</b>	49.8%	53.5%	56.6%	53.3%	55.8%	54.7%	57.2%	58.1%	58.4%	57.2%
<b>SG&amp;A Exp.</b>	232	277	280	320	306	317	349	391	437	465
<b>D&amp;A Exp.</b>	107	146	151	153	141	120	108	113	121	127
<b>Operating Profit</b>	238	280	193	197	248	297	535	489	540	915
<b>Operating Margin</b>	16.7%	16.9%	13.5%	11.9%	15.1%	17.0%	25.0%	23.3%	23.5%	29.3%
<b>Net Profit</b>	370	217	165	81	206	(43)	258	452	467	784
<b>Net Margin</b>	25.9%	13.1%	11.6%	4.9%	12.6%	-2.5%	12.1%	21.5%	20.4%	25.1%
<b>Free Cash Flow</b>	189	284	162	323	333	370	521	363	444	684
<b>Income Tax</b>	(130)	49	37	14	47	(12)	267	16	58	117

## Balance Sheet Metrics

Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>Total Assets</b>	2,189	2,429	2,630	2,539	2,549	2,762	3,110	2,707	2,787	3,652
<b>Cash &amp; Equivalents</b>	574	339	342	294	265	308	430	927	774	914
<b>Accounts Receivable</b>	129	153	158	151	211	192	273	291	362	498
<b>Inventories</b>	160	139	138	105	154	136	108	154	197	222
<b>Goodwill &amp; Int. Ass.</b>	746	668	614	464	728	324	331	507	542	555
<b>Total Liabilities</b>	684	651	645	460	583	934	1,156	1,184	1,307	1,442
<b>Accounts Payable</b>	70	58	63	48	92	95	86	101	127	134
<b>Long-Term Debt</b>	163	173	187	-	-	353	366	380	395	410
<b>Shareholder's Equity</b>	1,505	1,778	1,985	2,079	1,966	1,829	1,954	1,522	1,480	2,211
<b>D/E Ratio</b>	0.11	0.10	0.09	-	-	0.19	0.19	0.25	0.27	0.19

## Profitability & Per Share Metrics

Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>Return on Assets</b>	18.5%	9.4%	6.5%	3.1%	8.1%	-1.6%	8.8%	15.5%	17.0%	24.4%
<b>Return on Equity</b>	28.2%	13.2%	8.8%	4.0%	10.2%	-2.3%	13.6%	26.0%	31.1%	42.5%
<b>ROIC</b>	25.1%	12.0%	8.0%	3.8%	10.2%	-2.1%	11.5%	21.4%	24.8%	34.9%
<b>Shares Out.</b>	186	186	190	202	211	199	195	175	166	166
<b>Revenue/Share</b>	6.30	7.20	6.06	7.40	7.69	8.65	10.60	10.91	12.79	17.05
<b>FCF/Share</b>	0.83	1.23	0.69	1.45	1.56	1.83	2.58	1.88	2.47	3.74

Note: All figures in millions of U.S. Dollars unless per share or indicated otherwise.

### Disclaimer

Nothing presented herein is, or is intended to constitute, specific investment advice. Nothing in this research report should be construed as a recommendation to follow any investment strategy or allocation. Any forward-looking statements or forecasts are based on assumptions and actual results are expected to vary from any such statements or forecasts. No reliance should be placed on any such statements or forecasts when making any investment decision. While Sure Dividend has used reasonable efforts to obtain information from reliable sources, we make no representations or warranties as to the accuracy, reliability or completeness of third-party information presented herein. No guarantee of investment performance is being provided and no inference to the contrary should be made. There is a risk of loss from an investment in marketable securities. Past performance is not a guarantee of future performance.