

## Roadmap: Global Technology 2021 Outlook

### Neutral Due to Elevated Expectations

The Global Information Technology sector was the standout performer last year, with the MSCI World Info Tech index up 42.7%, versus 14% for the MSCI World index. We were positive on the sector through 2020, identifying the continued improvement in EVA Fundamentals. We now caution that the very strong EVA Momentum trend that built through 2020 has slowed at a time when expectations have continued to increase, with only the Software industry still seeing an expanding EVA Momentum trend (**Figure 1**). Profitability Trend is an important factor in alpha generation (**Figure 20**) and plays a significant role in our Tech industry and stock selection.

**Figure 1: EVA Fundamentals & Trend (Change from Jan 2020)**

Industry	EVA Margin	EVA Margin Chg	EVA Momentum	EVA Momentum Chg	Recent Momentum Trend	Share Price Chg 2020
IT Services	5.7%	-0.8%	-0.5%	-0.9%	→	30.7%
Tech Hardware, Storage & Peripherals	4.6%	1.0%	0.9%	2.7%	→	70.4%
Software	13.7%	3.3%	4.6%	2.9%	↑	41.8%
Communications Equipment	3.6%	1.4%	0.9%	-0.1%	→	1.4%
Electronic Equip, Instruments & Comp	0.2%	1.1%	-0.4%	0.5%	→	28.9%
Semiconductors & SPE	7.6%	3.1%	3.9%	9.4%	→	44.9%
Technology Sector	4.9%	1.2%	1.1%	2.2%	→	42.7%

Sales Weighted average, > \$1bn market cap

Most preferred industries: **Software, Semiconductors & SPE and IT Services**

Neutral: **Communications Equipment and Electronic Equipment**

Least preferred industry: **Tech Hardware**

**Figure 2** shows the relative attractiveness of the Tech sector industries based on their sales weighted average PRVIt score. The headline PRVIt scores are a visual barometer of the current industry conditions. The six Tech industries are all relatively attractive with a PRVIt above 50. In terms of regional allocation all regions also look attractive with Europe being the most favorable. The Communications Equipment industry has the highest, most favorable PRVIt score, and the Semiconductor & SPE industry has the lowest.

**Figure 2: PRVIt by Industry (Sales Weighted, > \$1bn Market Cap)**

Industry	Global	N America	EU	Asia ex JPN	Japan	LatAm	MEA
Communications Equipment	71	65	78	34	-	60	60
Elec Equipment, Instruments & Components	66	28	47	47	75	-	-
IT Services	65	67	79	32	50	22	61
Technology Hardware, Storage & Peripherals	65	40	79	55	81	-	-
Software	57	30	57	34	59	-	56
Semiconductors & Semiconductor Equipment	52	68	27	38	54	-	57
Grand Total	63	59	68	65	65	60	61

Sales weighted Av. > \$1bn mrkt cap

### Key Points

We were positive on the Tech Sector through 2020 as EVA Momentum continued to build (more EVA is always better). Heading into 2021 we caution on slowing incremental growth in EVA Momentum at a time when expectations are at elevated levels. Aggregate sector EVA Fundamentals remain positive, leaving a neutral view.

Our preference is towards high EVA Momentum industries (Software and Semi's) and recovering industries (IT Services).

### Table of Contents

**Summary** – Pg1

**Industry Ratings**- Pg2

**Sector EVA Fundamentals**- Pg3

**Sector Expectations**- Pg4&5

**ESG & PRVIt Components**- Pg5&6

**Macro**- Pg7

**Factor Performance**- Pg8

**Large Cap Stock Picks**- Pg8&9

**SMID Cap Picks**- Pg10&11

**Industry Reviews & Outlook**- Pg12-19

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### About ISS-EVA

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## Relative Industry Ranking

**Software (+):** The Software industry has very strong EVA Fundamentals and very high levels of Quality (P-R). Expensive levels of Valuation are offset by the high-Quality score. Expectation levels have continued to expand in lock step with the improvement in EVA Fundamentals. The only industry to have an upward trend in EVA Momentum.

**Semiconductors & Processing Equipment (+):** The Industry has seen the largest improvement in EVA Fundamentals, and we have been positive on the industry since EVA Momentum inflected at the beginning of 2020. The historical cycle suggests we are around 12 months from a peaking in EVA Momentum. We look for EVA Margin to reach above 2018 levels.

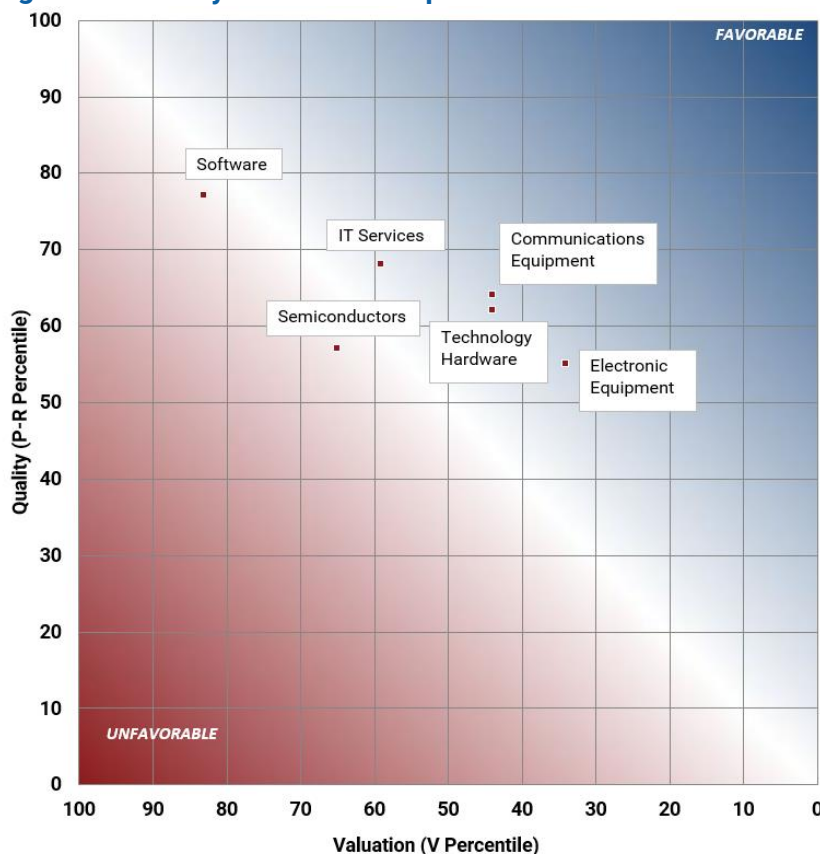
**IT Services (+):** EVA Fundamentals look to be bottoming with EVA Momentum around the 2008 lows. Expectations for EVA growth have risen and FGR is at a 17-year high. PRVit is favorable as the high Quality (P-R) score offsets the higher than sector Valuation score.

**Communication Equipment (=):** The big industry appeal and the driver of a high PRVit is the cheap level of Valuation. EVA Fundamentals are positive but are struggling to show improvement. Attractive in Europe and North America and unfavorable in Asia. The industry needs a positive catalyst for sustained outperformance.

**Electronic Equipment (=):** Improvements in EVA Fundamentals started from August last year but are being increasingly factored in by the market. The industry has historically struggled to return above the cost of capital and with expectations rising for growth in EVA, we will need to see further improvements in EVA Drivers.

**Technology Hardware (=):** EVA Momentum turned positive in September 2020. The concern is a slowing in trend Profitability at a time when expectations for growth have continued to rise. FGR is back to pre- GFC levels. Europe has the highest level of Valuation but also the highest level of Quality (P-R). Japanese industry stocks look cheap with their above global industry levels of Quality (P-R).

**Figure 3: Industry PRVit Heat Map**



**PRVit HEAT map** is the visual trade-off between **Quality and Valuation**: industries in the favourable (blue) area offer higher quality and/or cheaper valuation than those in the unfavourable (red) area.

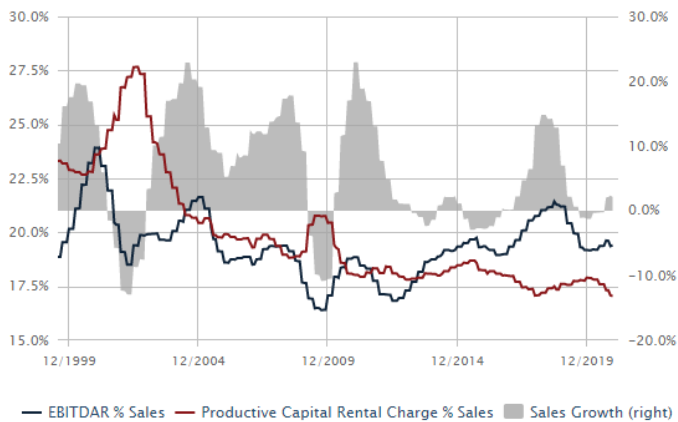
The y-axis is our measure of **Quality** where the higher the score, the higher the company/ industry **Quality or Risk-Adjusted Profitability** is. This is a composite score including **Level and Trend of Profitability (P1 and P2)** as well as **Volatility and Vulnerability (R1 and R2)**.

The x-axis is our measure of **Valuation** which includes **Wealth Ratios and Wealth Multiples (V1 and V2)**. This axis is plotted in reverse, so the most expensive stocks/industries (highest V scores) are to the left and the cheapest V scores are plotted to the right.

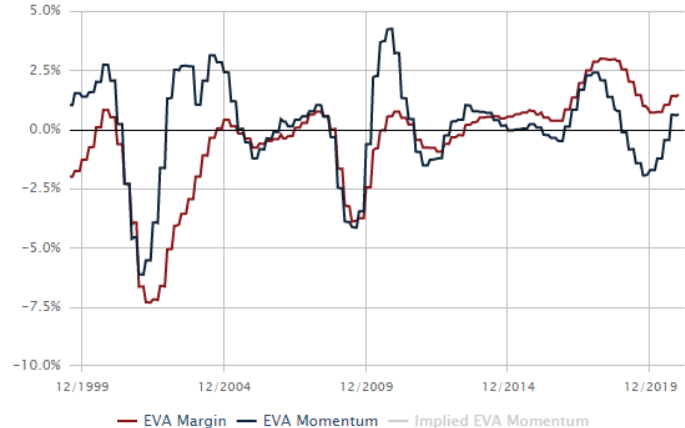
## EVA Fundamentals are Healthy

Global ex U.S aggregate sector Sales growth (**Figure 4**, grey area) has been accelerating since bottoming in November 2019. The most recent print in December shows a slowing of top line growth QoQ from 3.2% to 2.6%, whilst maintaining YoY growth of 2%. EBITDAR Margin (**Figure 4**, blue line) has rolled over slightly in Q4 to currently 26.8%. The Productive Capital Rental Charge (red line) is the total of all depreciation, amortization and pretax cost of capital on the firm's productive capital, divided by sales. Made up of working capital, PP&E, and intangible capital. Our measure of capital intensity has been drifting lower (lower is favorable) from August as the working capital charge has declined slightly. Global ex U.S aggregate EVA Fundamentals (**Figure 5**) have been on an improving trend since bottoming in Q4 of 2019. EVA Momentum inflected and bounced to positive territory in August. Since September, EVA Momentum has plateaued but remains positive as the sector is generating incremental growth in EVA. EVA Margin has been supported by the improving Sales growth, expanding EBITDAR Margin and lower Capital Intensity. Only lower Capital Intensity is currently a positive, as the other two EVA Drivers contract slightly. This is an area we will monitor closely in the Q1 results.

**Figure 4: Tech EVA Drivers (Global ex U.S)**

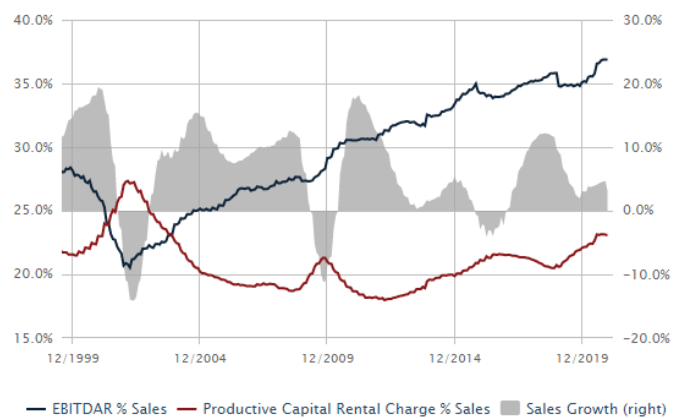


**Figure 5: Tech EVA Fundamentals (Global ex U.S)**

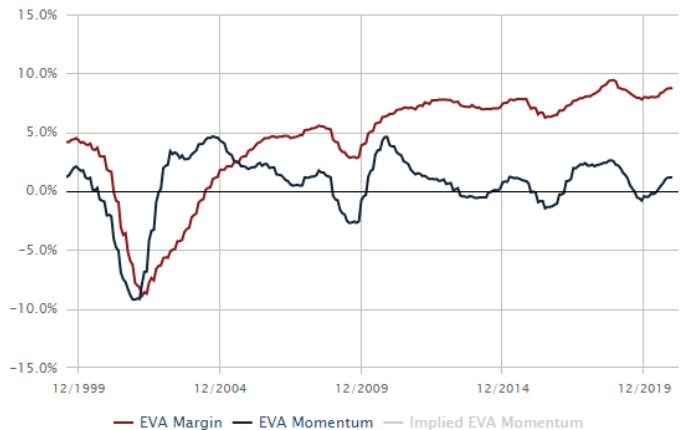


U.S aggregate sector Sales growth (**Figure 6**, grey area) has followed a similar path to Global regions, with a bottom in November 2019 and a slight contraction in QoQ growth in Q4 from 4.5% to 3.1%. EBITDAR Margin (**Figure 6**, blue line) has however, continued to expand to a new high of 36.9%. U.S EBITDAR Margin expansion has been strong since 2002. The Productive Rental Charge (red line) had been increasing (bad) from 2018 to the recent peak in July, with the reduction driven by a lower working capital charge, whilst the PP&E charge has continued to increase. EVA Fundamentals (**Figure 7**) have improved through 2020, with EVA Margin (red line) close to 2018 highs. In 2018 all 3 EVA Drivers moved in a favorable direction to drive a peak level for EVA Margin. In 2021 the reliance on an acceleration in Sales growth will be likely key to test the 2018 highs. This cycle is harder to predict given the COVID-19 related boosts and disruptions to the sector, however, given the trajectory of a 'normal' cycle we can see the expansion lasting through to the second half of 2021.

**Figure 6: Tech EVA Drivers (U.S)**



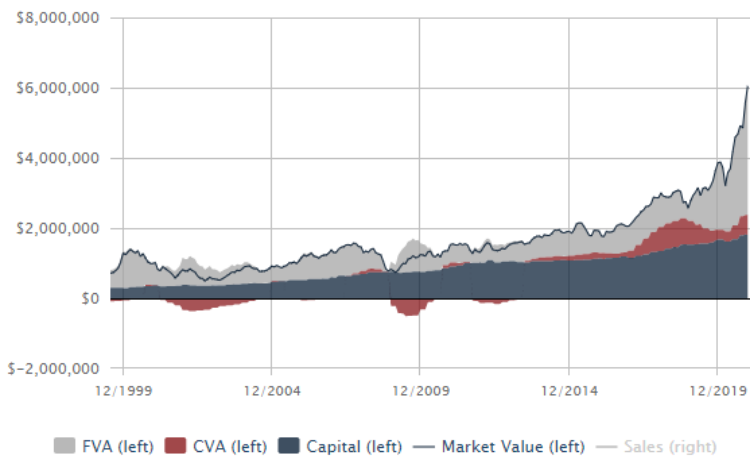
**Figure 7: Tech EVA Fundamentals (U.S)**



## Information Technology Global Valuation- Meeting High Expectations

**Figure 8** shows the aggregate breakdown in Enterprise Value for global Technology firms ex U.S. The Capital base (blue area) has continued to expand, which is total assets plus adjustments for leases, capitalized R&D and other EVA adjustments. The red area is the Current Value Added (CVA), which is the current level of profitability taken into perpetuity assuming no growth. CVA has recovered post the March fall to 73% of the 2018 peak. Given the Market Value, the Capital, and the CVA, we can figure out the Future Value Added (FVA, grey area) which is the amount of incremental growth investors are pricing into the sector or stock. FVA is around 3.2x higher than 2018, showing very elevated levels of investor expectations for growth. **Figure 9** shows Future Growth Reliance (FGR), which is  $FVA / \text{Market Value}$ , measuring the percent of the current market value that is dependent on future growth in EVA. The end December level of 61% is 18% lower than the post GFC level. Being cognisant of the very elevated levels of expectations, the move up in FGR has been somewhat supported by a recovery in CVA.

**Figure 8: Enterprise Value Components (Global ex U.S)**

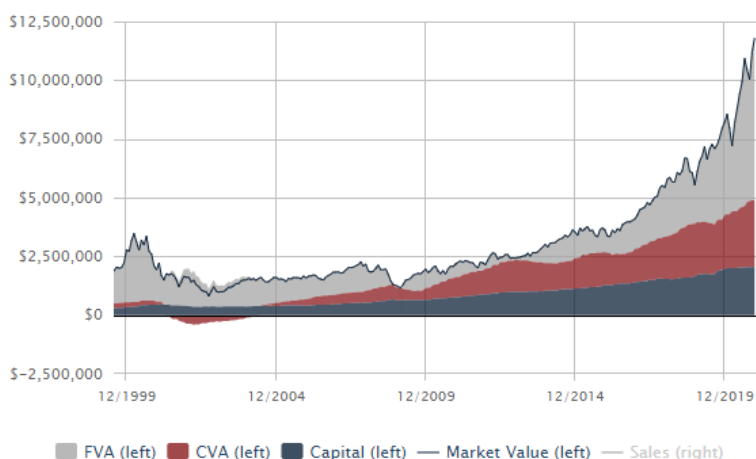


**Figure 9: FGR (Global ex U.S)**



CVA for U.S Tech firms on aggregate is 24% higher today than it was in 2018 (**Figure 10**), as US firms were able to continue to expand CVA during the global pandemic. FVA is around 133% higher than it was in 2018. Given the Global firms CVA is lower than it was in 2019 we would expect FVA to be higher than for U.S firms. U.S FGR (**Figure 11**) was 59% at the end of December which is in line with their global peers. We think as CVA continues to expand the FGR premium has potential to also increase.

**Figure 10: Enterprise Value Components (U.S)**



**Figure 11: FGR (U.S)**



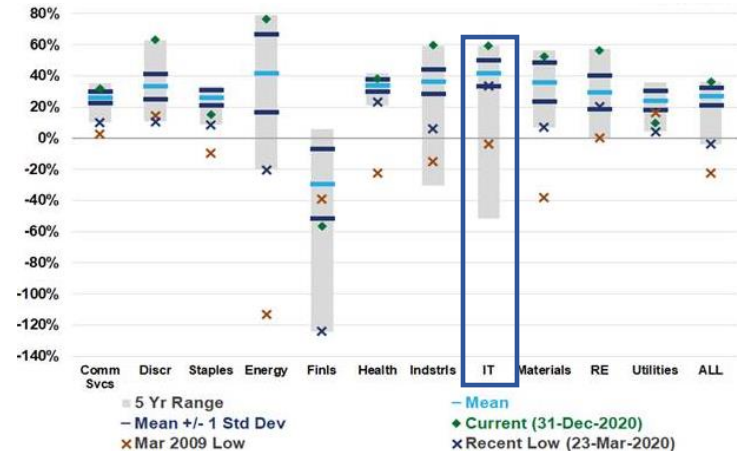
## Relative Expectations- Future Growth Reliance (FGR)

A key driver of our Value scores are the imbedded expectations of the market. For this, we use the Future Growth Reliance (FGR) metric which computes the implied future EVA growth. FGR for the sector is around 2009 levels (**Figure 12**). **Figure 13** plots global sector FGR levels over the last 5 years. The grey area is the overall range (min to max), the light blue lines represent the mean, the dark blue lines show the mean plus/minus 1 standard deviation, the green diamonds represent the current value, the red 'Xs' indicate lows from March 2009, and the blue 'Xs' represent the lows of March 2020. The majority of sectors are at the top end or above of their 5-year range.

**Figure 12: Global Tech FGR**



**Figure 13: Global All Cap Sector FGR**



## ESG

In **Figure 14** we look at the sales weighted average industry ESG Performance under ISS ESG coverage, totaling 519 companies. All industries have a less than prime ESG Performance score (below 50) and the industries have an ESG decile rank of 3 or above. A rank of 1 being most favorable. Software, Technology Hardware, and Storage & Peripherals have the highest ESG Performance score, whilst Electronic Equipment, Instruments & Components have the lowest ESG Performance score. The Electronic Equipment industry also has the worst ESG Decile Rank of 6 (lower is more favorable).

**Figure 14: ESG Scores**

Industry	ESG Perf Score	ESG Decile Rank
Software	48	3
Technology Hardware, Storage & Peripherals	46	3
Communications Equipment	41	4
Semiconductors & Semiconductor Equipment	41	5
IT Services	38	5
Elec Equip, Instruments & Components	27	6
Grand Total	37	5

**ESG Performance Score:** This factor provides a numerical score from 0 to 100. Prime Status is based on the ESG rating and a sector specific Prime threshold. The ESG Rating and Performance Score, however, is comparable over all rated entities. All rated entities with values greater than 50 are Prime, companies with values less than 50 are not Prime.

**ESG Rating Decile Rank:** This factor indicates decile rank relative to industry group (companies) and covered entities (countries) based on assessment of Environmental (E), Social (S) and Governance (G) performance. A decile rank of 1 indicates a high relative performance, while a 10 indicates a lower relative ESG performance.

## PRVit & ESG Ratings

**Figure 15** shows the sales weighted average industry PRRit and component scores, EVA Fundamentals and ESG ratings.

**Figure 15: Sales Weighted Average Industry PRRit, EVA Fundamentals & ESG Scores**

Industry	Global PRRit	Quality (P-R)	Profitability (P)	Risk (R)	Valuation (V)	EVA Margin	EVA Momentum	ESG Perf Score	ESG Decile Rank	# of Co's
Communications Equipment	71	64	61	39	44	3.6%	0.9%	41	4	58
Electronic Equipment, Instruments & Components	66	55	49	35	34	0.2%	-0.4%	27	6	224
IT Services	65	68	66	38	59	5.7%	-0.5%	38	5	175
Technology Hardware, Storage & Peripherals	65	62	65	51	44	4.6%	0.9%	46	3	56
Software	57	77	81	49	83	13.7%	4.6%	48	3	217
Semiconductors & Semiconductor Equipment	52	57	67	66	65	7.6%	3.9%	41	5	182
Grand Total	63	62	63	46	51	4.9%	1.1%	37	5	912

Sales weighted Av. > \$1bn mrkt cap N.B. ESG Scores are based off ISS ESG coverage

**Figure 16** shows the same data based on a simple average basis. On this basis (**Figure 16**) the sector looks less favorable with a global PRRit score of 49 versus 63. The biggest difference is in North America and the Software and Communication Equipment industries. The North America Software industry is dominated by Microsoft which accounts for close to a third of the sales of the total industry. The top 5 largest firms account for 56% of sales in the industry. Microsoft has a PRRit score of 64. In the Communications Equipment industry Cisco accounts for 24% of the sales and has a PRRit score of 84.

In total the weighted average and simple average Profitability (P) and Risk (R) scores are similar with the main difference being in Valuation (51 versus 68). In average the sector looks more expensive as all the sectors except for Technology Hardware see an increase in their Valuation scores. This leads to the conclusion that firms with lower levels of sales currently have higher Valuations. When we analyse the top 100 firms by size of sales, they have on average an FGR of 47 versus an average FGR of 74 for the 100 firms with the smallest sales amount. These firms will be earlier stage, with higher growth expectations, versus more developed lower growth firms, meaning the additional valuation premium makes sense.

**Figure 16: Average Industry PRRit, EVA Fundamentals & ESG Scores**

Industry	Global PRRit	Quality (P-R)	Profitability (P)	Risk (R)	Valuation (V)	EVA Margin	EVA Momentum	ESG Perf Score	ESG Decile Rank	# of Co's
Technology Hardware, Storage & Peripherals	65	60	57	39	38	0.5%	0.9%	46	3	56
IT Services	56	66	65	39	69	3.5%	0.4%	39	4	175
Electronic Equipment, Instruments & Components	51	58	55	40	58	2.5%	0.8%	31	5	224
Communications Equipment	49	56	53	42	61	1.1%	1.1%	30	6	58
Semiconductors & Semiconductor Equipment	46	57	62	55	72	3.7%	3.9%	38	5	182
Software	39	60	60	45	85	1.0%	2.4%	37	5	217
Grand Total	49	60	60	44	68	2.4%	1.8%	37	5	912

> \$1bn mrkt cap N.B. ESG Scores are based off ISS ESG coverage

## Macro

**Figure 17** below is a slide from Juniper Networks IR material giving an overview of industry opportunities. Enterprise growth in cloud demand continues to increase but has become more cyclical relative to prior years. Cyber security, internet and mobile data traffic, IOT, 5G and A.I. all provide a tail wind for the Tech industries. On the flip side, cost pressure on latest equipment development and deployment at a time when EBITDAR Margin is pressured by elevated logistics, freight, and component costs is a risk to Profitability over the next 6-12 months.

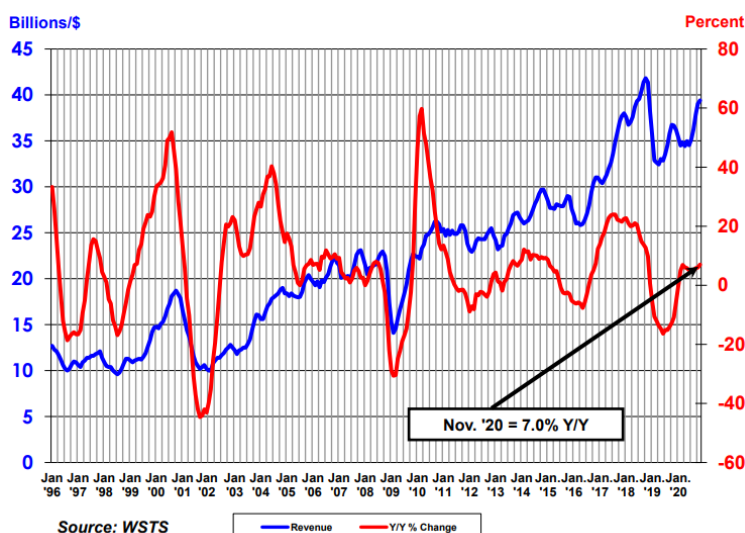
**Figure 17: Sector Drivers**



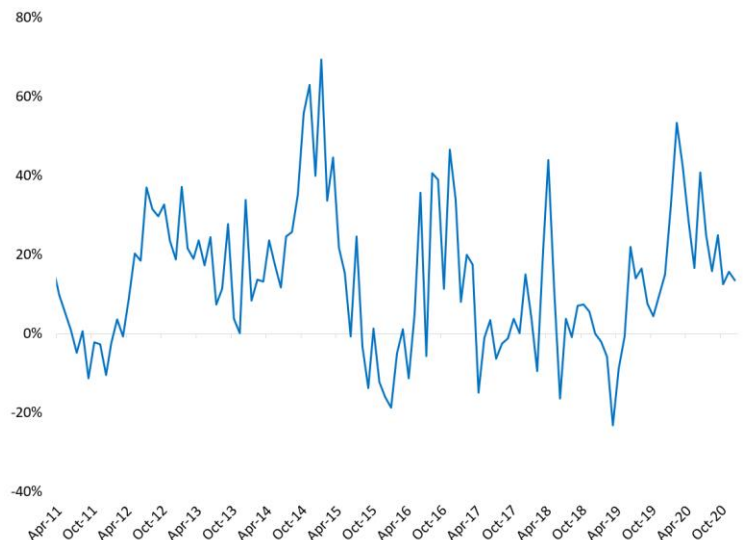
Source: Juniper Networks (Dec 20 IR Materials)

The Semiconductors & SPE industry is one of our top picks. Below we show some of the data points we monitor for the industry. The January release from the Semiconductor Industry Association (SIA) showed November sales of global semiconductors up 1.1% MoM and up 7% YoY (**Figure 18**). Monthly sales are compiled by the World Semiconductor Trade Statistics (WSTS) organization and represent a three-month moving average. U.S. sales remain particularly strong up 12.5% YoY. We use Taiwan Semiconductor Manufacturing (TSMC) data as a proxy for the trend in semiconductor sales. **Figure 19** shows the YoY monthly revenue trend for TSMC. December revenues were up a strong 14% YoY although down 6% MoM.

**Figure 18: WSTS Semiconductor Revenues**



**Figure 19: TSMC Monthly Revenue**



## Information Technology Global Factor Performance

Back testing has shown that PRVIt continues to work well for the Global Information Technology sector (**Figure 20**), with average monthly returns of +154bps since 1998. The factor performance had been driven by high Profitability, both level and trend until the second half of 2020. Over the last quarter in particular the rotation into Value at the expense of Quality (P-R) has been very notable. The COVID-19 vaccine positive news flow has been the catalyst for the rotation and the highly valued thematic home working and e-commerce beneficiaries have seen profit taking. We believe Profitability trend (P2) will be a very important factor for the Tech sector in 2021 as the market will identify and reward the structural winners and recovery plays.

**Figure 20: Global Technology Factor Performance**

Global Information Technology	1M		3M		1Y		3Y		5Y		10Y		Since May'98	
Industry Scores	IC	Spread	Avg IC	Avg Monthly Spread	Avg IC	Avg Monthly Spread	Avg IC	Avg Monthly Spread	Avg IC	Avg Monthly Spread	Avg IC	Avg Monthly Spread	Avg IC	Avg Monthly Spread
Profitability (High P)	3.8%	0.73%	-0.5%	-2.00%	3.4%	-0.37%	5.0%	0.56%	5.2%	0.68%	5.2%	0.62%	5.0%	0.43%
Profitability Level (High P1)	3.5%	-1.83%	-0.2%	-2.45%	3.7%	-1.00%	5.9%	0.53%	5.9%	0.64%	5.6%	0.50%	5.4%	0.27%
Profitability Trend (High P2)	3.0%	1.57%	-0.3%	0.17%	2.0%	0.62%	1.7%	0.47%	2.1%	0.59%	2.6%	0.59%	2.8%	0.77%
Risk (Low R)	1.6%	-0.39%	-4.2%	-3.06%	0.8%	-2.01%	5.2%	0.35%	5.9%	0.66%	6.1%	0.66%	5.7%	0.64%
Volatility (Low R1)	0.9%	-1.73%	-4.7%	-4.43%	0.5%	-2.53%	5.7%	0.07%	6.8%	0.54%	6.5%	0.47%	5.7%	-0.06%
Vulnerability (Low R2)	1.5%	1.00%	-1.7%	-0.48%	0.5%	-0.48%	2.3%	0.40%	2.3%	0.42%	2.7%	0.49%	3.1%	0.91%
Quality (High P - R)	3.4%	-1.07%	-2.1%	-3.34%	3.2%	-1.41%	6.0%	0.34%	6.4%	0.65%	6.6%	0.71%	6.1%	0.61%
Valuation (Low V)	4.7%	2.27%	3.3%	2.19%	-2.0%	0.70%	-3.0%	-0.12%	-1.2%	0.30%	-0.9%	0.33%	0.5%	1.23%
Valuation Ratios (Low V1)	3.4%	1.67%	3.3%	2.41%	-2.4%	0.82%	-3.9%	-0.26%	-2.2%	0.22%	-1.9%	0.20%	-0.5%	1.17%
Valuation Multiples (Low V2)	5.4%	1.48%	2.8%	0.68%	-0.7%	-0.46%	0.6%	-0.02%	2.5%	0.55%	2.8%	0.49%	4.0%	0.90%
PRVIt	6.8%	2.93%	1.4%	0.06%	1.7%	-0.16%	3.5%	0.52%	4.9%	0.93%	5.3%	0.90%	5.8%	1.54%
PRVIt Prime	8.6%	3.14%	3.8%	0.72%	2.0%	-0.17%	3.2%	0.32%	4.4%	0.70%	4.9%	0.76%	5.5%	1.43%

## Picking the Stocks

We screen 912 global Technology stocks with a market cap of over \$1bn to identify companies that are returning above their cost of capital and growing EVA. The companies are rated overweight in the PRVIt Framework with high levels of Profitability. In **Figure 21** we list the top 20 global Technology screened names with a market cap over \$10bn. **Figure 24** shows top picks < \$10bn market cap.

## Main Screen criteria for Global Technology

High Quality (P-R), High PRVIt (> 60) & Positive Profitability Trend (P2 > 80)

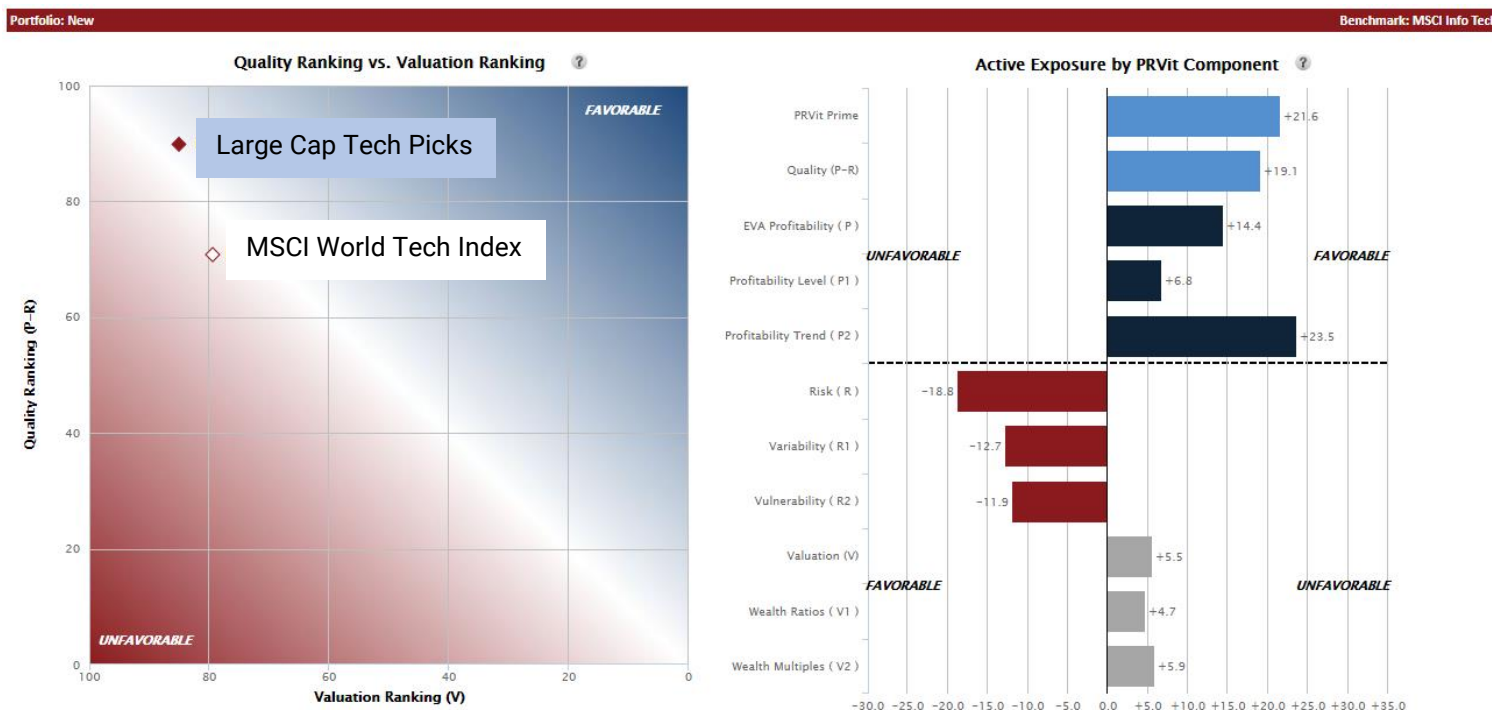
**Figure 21: Global Tech Top Large Cap Picks (Data as of January 8<sup>th</sup>)**

Name	Ticker	GICS Industry	Country	Mkt Cap (\$mm)	EVA Margin (%)	EVA Momentum (%)	PRVIt Score	Profitability Score (P)	P2 Profitability Trend	Risk Score (R)	Valuation Score (V)	ESG Perf Score	ESG Decile Rank
MICROSOFT CORP	MSFT	Software	US	1,660,694	27.0%	7.2%	63	98	95	50	92	66	1
ASML HOLDING NV -ADR	ASML	Semi's & SPE	Netherlands	213,761	18.8%	14.9%	63	97	95	59	95	-	-
SAP SE -ADR	SAP	Software	Germany	159,728	9.8%	6.2%	80	86	82	55	68	-	-
INFOSYS LTD -ADR	INFY	IT Services	India	76,232	16.0%	1.8%	72	94	81	16	90	-	-
AUTOMATIC DATA PROCESSING	ADP	IT Services	US	73,430	15.1%	1.4%	68	94	81	42	87	54	1
LAM RESEARCH CORP	LRCX	Semi's & SPE	US	72,604	17.9%	5.8%	61	95	85	68	87	35	4
AUTODESK INC	ADSK	Software	US	70,510	9.3%	9.7%	62	95	97	34	98	55	1
TOKYO ELECTRON LTD	8035 JP	Semi's & SPE	Japan	61,542	13.8%	2.9%	68	95	87	26	84	50	2
KLA CORP	KLAC	Semi's & SPE	US	43,781	19.2%	6.9%	61	94	86	71	86	31	5
SYNOPSYS INC	SNPS	Software	US	40,460	8.2%	4.2%	68	86	82	23	89	33	5
CADENCE DESIGN SYSTEMS INC	CDNS	Software	US	38,338	10.2%	3.7%	73	87	82	9	93	45	2
HCL TECHNOLOGIES LTD	HCLT IN	IT Services	India	36,812	11.8%	2.6%	84	91	81	12	76	53	1
MOTOROLA SOLUTIONS INC	MSI	Comms Equip	US	29,866	7.3%	4.1%	71	87	84	42	74	51	2
CONSTELLATION SOFTWARE INC	CSU	Software	Canada	27,460	11.8%	2.9%	79	96	90	7	93	-	-
MAXIM INTEGRATED PRODUCTS	MXIM	Semi's & SPE	US	25,241	16.7%	5.3%	72	91	81	32	91	48	3
TERADYNE INC	TER	Semi's & SPE	US	21,950	17.0%	14.6%	72	97	95	53	87	28	6
EPAM SYSTEMS INC	EPAM	IT Services	US	19,837	8.2%	2.5%	65	92	89	32	94	48	2
SEMICONDUCTOR MFG INTL CORP	SMICY	Semi's & SPE	Hong Kong	19,178	5.4%	18.4%	94	80	93	87	22	-	-
LOGITECH INTERNATIONAL SA	LOGI	Tech Hard	Switzerland	17,802	12.8%	10.3%	79	97	97	28	85	48	2
NICE LTD -ADR	NICE	Software	Israel	17,309	5.4%	3.2%	67	82	80	13	90	-	-
CITRIX SYSTEMS INC	CTXS	Software	US	16,040	15.8%	4.7%	80	95	87	24	85	38	4
ASM INTERNATIONAL NV -ADR	ASMIY	Semi's & SPE	Netherlands	11,790	21.6%	12.4%	69	99	98	55	94	-	-
HANGZHOU FIRST APPLIED MATER	603806 CH	Semi's & SPE	China	11,027	8.0%	9.0%	68	92	93	37	94	-	-

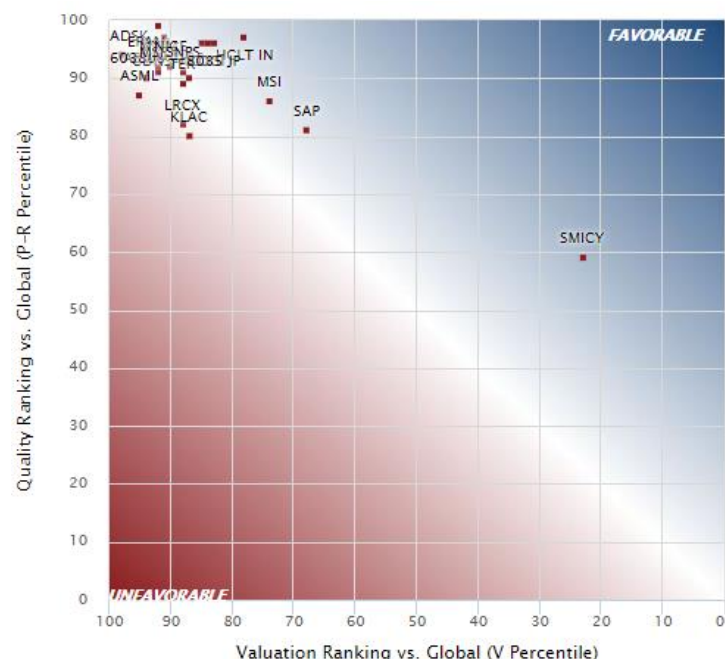
## Large Cap Screen

Below (**Figure 22**) we look at the top large cap screened names in **Figure 21** relative to the MSCI World Info Tech index. The screened names have a PRVit score 21.6 points above the index, driven by higher Profitability (P), lower Risk (R), at the expense of a slightly higher Valuation (V).

**Figure 22: Large Cap Picks Vs MSCI Info Tech Index**



**Figure 23: Large Cap Picks PRVit Heat Map**



The high level of Risk adjusted Profitability is reflected by the very high levels of Quality (P-R) in the screened large cap picks. Whilst Valuation levels are expensive the overall rating is positive. The firms most live in our upper left 'Expensive But Worth It' zone.

## SMID Cap Screen

Using the same criteria as for the large cap stocks we also screen Global Tech firms with a market cap less than \$10bn in **Figure 24**.

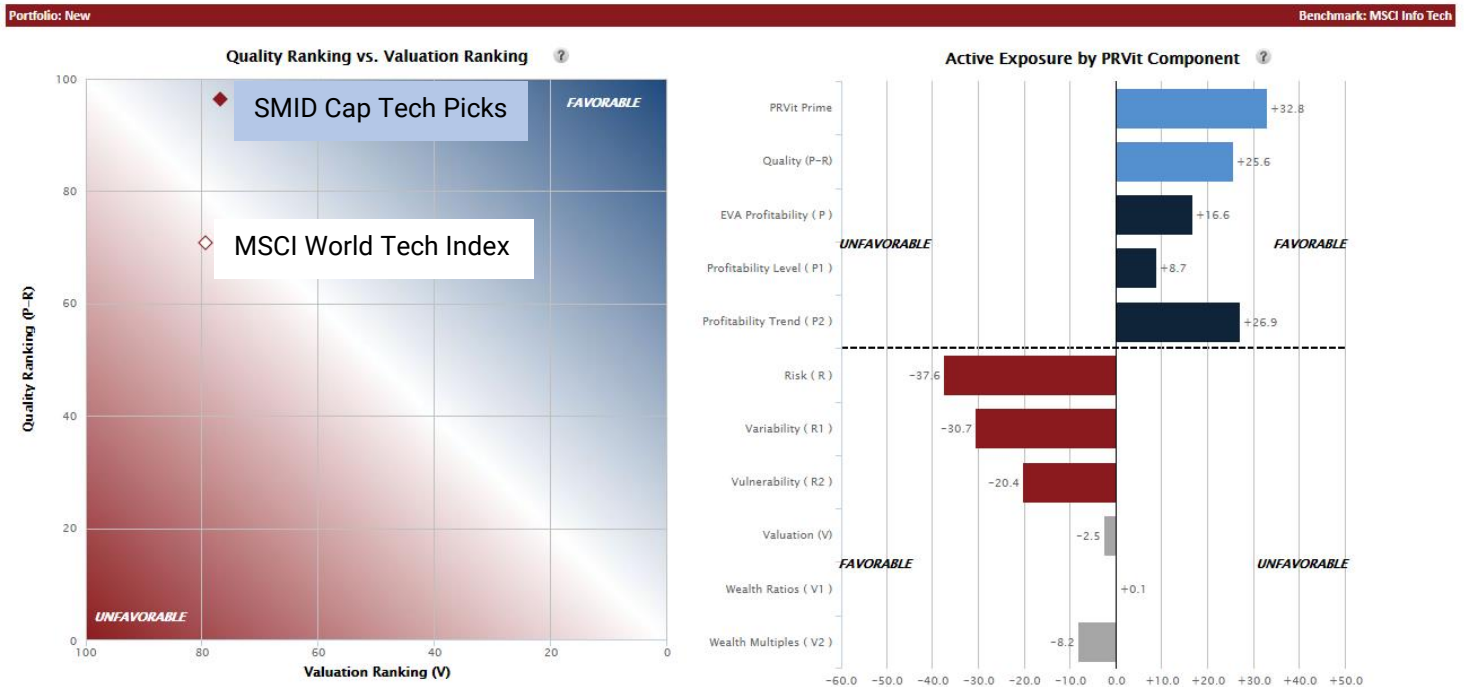
**Figure 24: SMID Cap Stock Picks (Data as of January 8<sup>th</sup>)**

Name	Ticker	GICS Industry	Country	Mkt Cap (\$mm)	EVA Margin (%)	EVA Momentum (%)	PRVit Score	Profitability Score (P)	P2 Profitability Trend	Risk Score (R)	Valuation Score (V)	ESG Perf Score	ESG Decile Rank
LARSEN & TOUBRO INFOTECH	LTI IN	IT Services	India	9,747	7.0%	5.0%	74	95	94	7	94	-	-
SG MICRO CORP	300661 CH	Semi's & SPE	China	6,415	15.0%	14.7%	70	97	97	34	99	-	-
QUALYS INC	QLYS	Software	US	4,934	22.9%	6.3%	77	99	96	15	96	31	6
REPLY SPA	REY IM	IT Services	Italy	4,393	6.7%	2.0%	90	88	81	6	79	-	-
SPS COMMERCE INC	SPSC	Software	US	4,117	8.9%	4.6%	74	91	91	9	95	48	2
ORACLE FINANCIAL SVCS SOFTWA	OFSS IN	Software	India	3,922	29.6%	2.6%	86	95	80	12	77	63	1
MINDTREE LTD	MTCL IN	IT Services	India	3,909	9.0%	3.8%	75	96	93	20	87	-	-
LAKALA PAYMENT CORP	300773 CH	IT Services	China	3,720	16.6%	4.4%	84	97	93	29	81	-	-
WNS (HOLDINGS) LTD -ADR	WNS	IT Services	India	3,533	9.4%	1.5%	78	91	82	17	81	-	-
ACACIA COMMUNICATIONS INC	ACIA	Comms Equip	US	3,387	11.3%	6.3%	80	92	86	16	81	-	-
ANRITSU CORP	6754 JP	Elec Equip	Japan	3,267	9.7%	5.5%	84	93	94	8	63	-	-
ZHEJIANG JIECANG LINEAR MOTI	603583 CH	Elec Equip	China	3,254	16.1%	5.4%	70	97	96	27	93	-	-
ENGHOUSE SYSTEMS LTD	ENGH.	Software	Canada	2,819	16.5%	10.2%	85	96	94	6	87	-	-
SINOSOFT CO LTD	603927 CH	Software	China	2,606	7.1%	1.2%	85	93	87	11	84	-	-
SIMPLO TECHNOLOGY	6121 TT	Elec Equip	Taiwan	2,535	5.0%	2.2%	95	92	89	4	39	-	-
ELECOM CO LTD	6750 JP	Tech Hard	Japan	2,352	9.0%	1.8%	86	93	86	3	63	-	-
DB HITEK CO LTD	000990 KS	Semi's & SPE	SK	2,229	15.0%	7.0%	86	93	93	63	65	-	-
SPIRENT COMMUNICATIONS -ADR	SPMY	Comms Equip	UK	2,150	12.1%	7.6%	88	96	95	18	75	-	-
WONIK IPS CO LTD	240810 KS	Semi's & SPE	SK	2,031	12.1%	25.9%	97	95	91	58	44	-	-
LOTES CO LTD	3533 TT	Elec Equip	Taiwan	2,013	13.0%	6.7%	77	95	93	19	67	-	-
LEENO INDUSTRIAL INC	058470 KS	Semi's & SPE	SK	1,994	24.0%	7.8%	83	97	92	26	92	-	-
IREADER TECHNOLOGY	325470 CN	Software	China	1,986	7.8%	4.5%	76	95	92	17	95	-	-
KAINOS GROUP PLC	KNOS LN	IT Services	UK	1,904	13.4%	5.1%	71	98	96	31	96	-	-
INFOCOM CORP	4348 JP	IT Services	Japan	1,851	8.9%	2.0%	77	95	91	8	79	27	4
ELAN MICROELECTRONICS CORP	2458 TT	Semi's & SPE	Taiwan	1,768	21.6%	13.9%	86	99	99	16	70	-	-
TATA ELXSI LTD	TELX IN	Software	India	1,736	14.9%	4.4%	73	96	89	13	94	-	-
COMPUTER SERVICES INC	CSVI	IT Services	US	1,683	15.5%	4.0%	86	94	88	11	83	-	-
CODAN LTD	CDA AU	Elec Equip	Australia	1,680	15.9%	8.7%	84	96	93	26	86	30	5
WACOM CO LTD	6727 JP	Tech Hard	Japan	1,483	6.3%	6.1%	82	95	96	22	62	-	-
JAPAN MATERIAL CO LTD	6055 JP	Semi's & SPE	Japan	1,453	13.0%	5.0%	78	94	90	9	81	-	-
SINO WEALTH ELECTRONIC LTD	300327 CH	Semi's & SPE	China	1,400	12.7%	4.5%	83	93	86	10	93	-	-
BEIJING WANJI TECHNOLOGY	300552 CH	Elec Equip	China	1,324	28.5%	65.8%	89	98	93	68	50	-	-
TOKAI CARBON KOREA	064760 KS	Semi's & SPE	SK	1,308	20.5%	4.7%	88	97	93	24	86	-	-
ASIAINFO TECHNOLOGIES LTD	1675 HK	Software	China	1,244	5.5%	4.4%	100	88	91	10	24	-	-
WONDERSHARE TECHNOLOGY GROU	300624 CH	Software	China	1,118	11.1%	6.3%	76	95	91	21	92	-	-
MCJ CO LTD	6670 JP	Tech Hard	Japan	1,093	4.6%	1.7%	97	90	87	5	32	-	-
SENSIRION HOLDING AG	SENS SW	Elec Equip	Switzerland	1,090	4.0%	13.0%	82	86	96	12	78	-	-

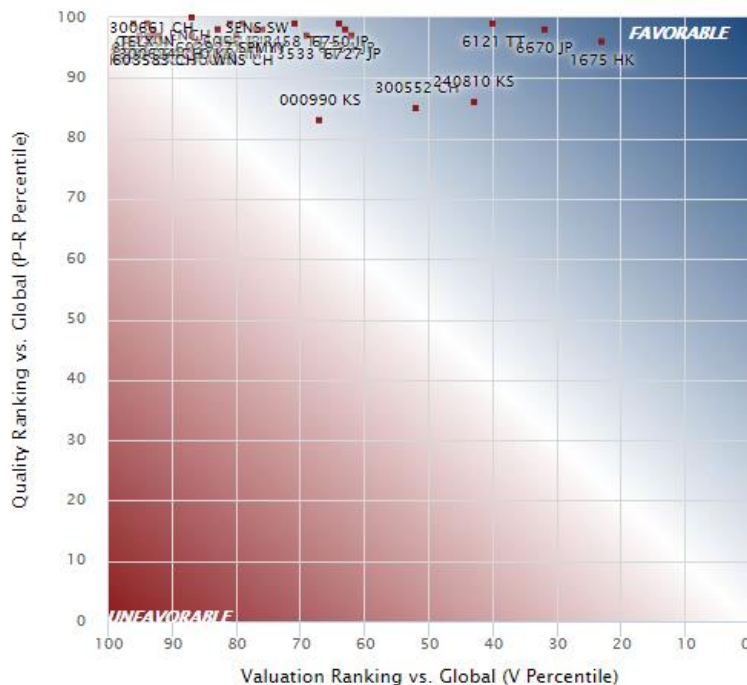
## SMID Cap Screen

The small cap screened names have a PRVit score 33 points above the MSCI World Info Tech index, driven by higher Quality (P-R) and a lower Valuation.

**Figure 25: SMID Cap Stock Picks Vs MSCI Info Tech Index**



**Figure 26: SMID Cap Stock Picks PRVit Heat Map**



The Top SMID cap picks are very high Quality (higher vertically) with a spread of Valuation (further right is cheaper).

## Industry Review & Outlook

### Software (+): Strong & Improving EVA Fundamentals

The Software industry has very strong EVA Fundamentals and very high levels of Quality (P-R). Expensive levels of Valuation are offset by the high-Quality (P-R) score. Expectation levels have continued to expand in step with the improvement in EVA Fundamentals. The industry has so far delivered on the high expectations.

**Figure 25: Software PRVit Ranking (Weighted Average)**

Software	Global	N America	Europe	Asia ex	JPN
PRVit Score	57	30	57	34	59
Quality (P-R)	77	52	79	52	89
Valuation Score (V)	83	88	82	81	84
EVA Margin (%)	13.7%	-3.5%	7.5%	-0.7%	15.4%
EVA Momentum (%)	4.6%	2.7%	-0.5%	-3.0%	0.8%

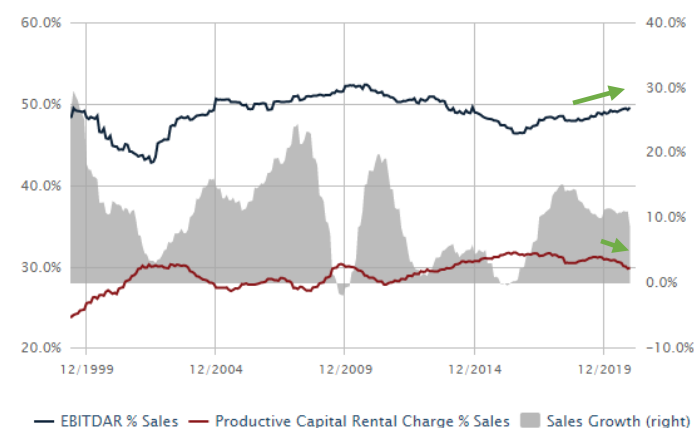
**Figure 26: Software EVA Fundamentals**



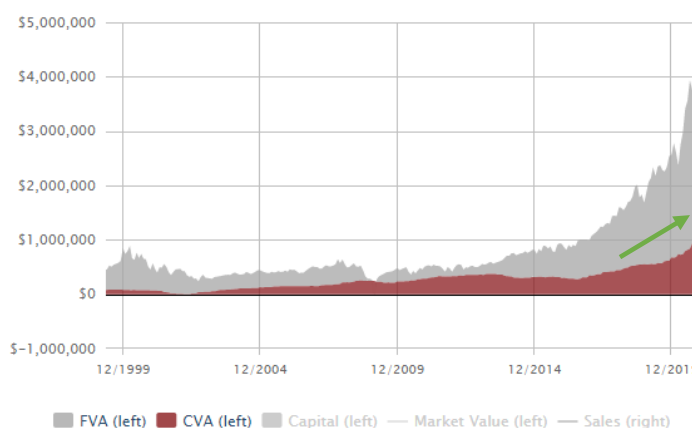
**Figure 27: Software FGR**



**Figure 28: Software EVA Drivers**



**Figure 29: Software CVA & FVA**



## Industry Review & Outlook

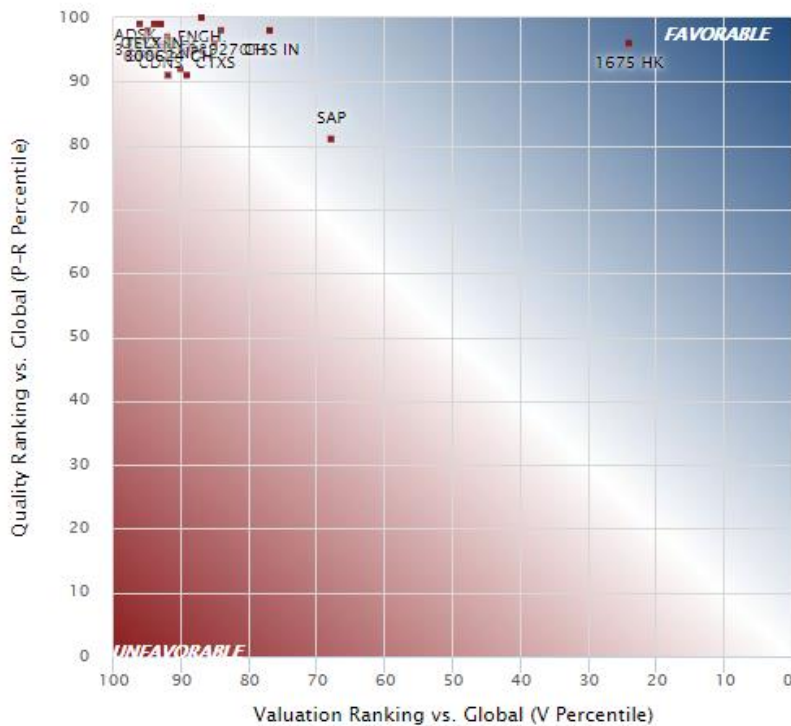
### Software (+): Strong & Improving EVA Fundamentals

Figure 30 is a list of the top Software picks from our top Global Tech screens (Figure 21 & 24).

Figure 30: Software Top Picks

Name	Ticker	Country	Mkt Cap (\$mm)	EVA Margin (%)	EVA Momentum (%)	PRVit Score	Profitability Score (P)	P2 Profitability Trend	Risk Score (R)	Valuation Score (V)	PX CHG % 1 YR
MICROSOFT CORP	MSFT	US	1,660,694	27.0%	7.2%	63	98	95	50	92	36.1%
SAP SE -ADR	SAP	Germany	159,728	9.8%	6.2%	80	86	82	55	68	-4.2%
AUTODESK INC	ADSK	US	70,510	9.3%	9.7%	62	95	97	34	98	66.3%
SYNOPSYS INC	SNPS	US	40,460	8.2%	4.2%	68	86	82	23	89	77.0%
CADENCE DESIGN SYSTEMS INC	CDNS	US	38,338	10.2%	3.7%	73	87	82	9	93	86.5%
CONSTELLATION SOFTWARE INC	CSU.	Canada	27,460	11.8%	2.9%	79	96	90	7	93	-71.1%
NICE LTD -ADR	NICE	Israel	17,309	5.4%	3.2%	67	82	80	13	90	68.9%
CITRIX SYSTEMS INC	CTXS	US	16,040	15.8%	4.7%	80	95	87	24	85	15.0%
QUALYS INC	QLYS	US	4,934	22.9%	6.3%	77	99	96	15	96	46.2%
SPS COMMERCE INC	SPSC	US	4,117	8.9%	4.6%	74	91	91	9	95	101.9%
ORACLE FINANCIAL SVCS SOFTWA	OFSS IN	India	3,922	29.6%	2.6%	86	95	80	12	77	17.1%
ENGHOUSE SYSTEMS LTD	ENGH.	Canada	2,819	16.5%	10.2%	85	96	94	6	87	0.0%
SINOSoft CO LTD	603927 CH	China	2,606	7.1%	1.2%	85	93	87	11	84	-45.4%
IREADER TECHNOLOGY	325470 CN	China	1,986	7.8%	4.5%	76	95	92	17	95	0.0%
TATA ELXSI LTD	TELX IN	India	1,736	14.9%	4.4%	73	96	89	13	94	140.8%
ASIAINFO TECHNOLOGIES LTD	1675 HK	China	1,244	5.5%	4.4%	100	88	91	10	24	15.8%
WONDERSHARE TECHNOLOGY GROUP	300624 CH	China	1,118	11.1%	6.3%	76	95	91	21	92	18.5%

Figure 31: Software Top Picks PRVit Heat Map



The Software top picks are mostly congregated in the upper left part of the PRVit Heat map we call 'Expensive But Worth It'.

Asianfo Technologies (1675 HK) is an exemption being the upper right part of the Herat map. A zone we call 'Best: High Quality & Cheap'

## Industry Review & Outlook

### Semiconductors & Processing Equipment (+): The 2020 Improver- More to go in 2021

The industry has seen the largest improvement in EVA Fundamentals in 2020, and we have been positive on the industry since EVA Momentum (Figure 32) inflected at the beginning of last year. The historical cycle suggests we are around 12 months from a peaking in EVA Momentum. We look for EVA Margin to reach above 2018 levels. Like the majority of the sector investor growth expectations are at record highs which leaves little room for disappointment at a time when EVA Momentum growth has decelerated.

Figure 32: Semis & SPE PRVit Ranking (Weighted Average)

Semis & SPE	Global	N America	Europe	Asia ex	JPN	MEA
PRVit Score	52	68	27	38	54	56
Quality (P-R)	57	61	29	47	67	81
Valuation Score (V)	65	56	68	59	62	89
EVA Margin (%)	7.6%	7.7%	-1.7%	-11.1%	4.8%	6.1%
EVA Momentum (%)	3.9%	4.9%	-3.3%	4.4%	2.8%	-0.1%

Sales are increasing, EBITDAR Margin is stable and prior investment is being scaled into, supporting the improvements in EVA Fundamentals (Figure 33 & 35). Noticeable is that over the previous two industry cycle corrections in 2016 and 2019 EVA Margin (profitability) remained positive as the industry continued to cover their cost of capital. North America is regionally most attractive (Figure 32) with a higher EVA Margin (Figure 35) and comparative Valuation to global ex U.S.

Figure 33: Global ex U.S Semis & SPE EVA Fundamentals

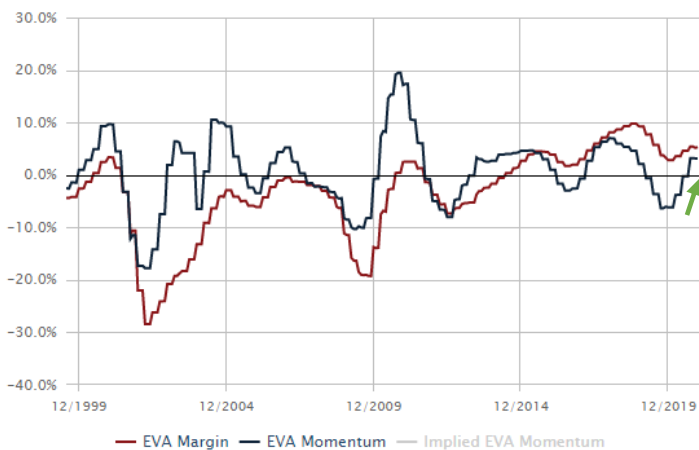


Figure 34: Global ex U.S Semis & SPE FGR

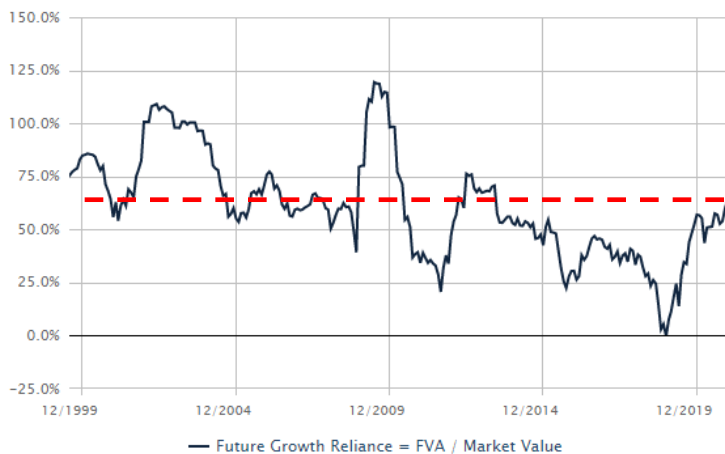


Figure 35: U.S. Semis & SPE EVA Fundamentals

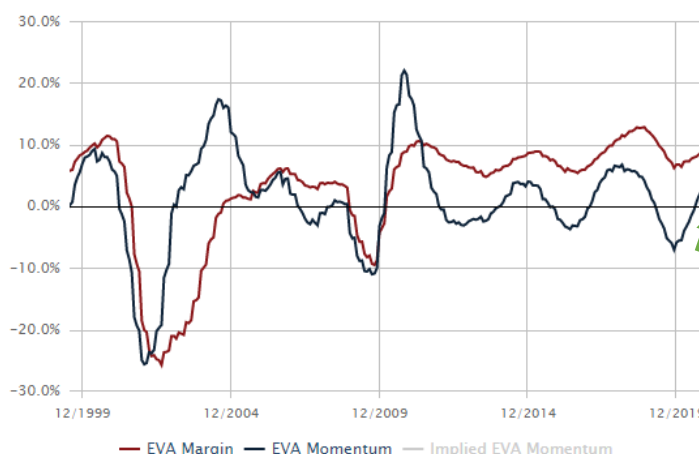


Figure 36: U.S. Semis & SPE FGR



## Industry Review & Outlook

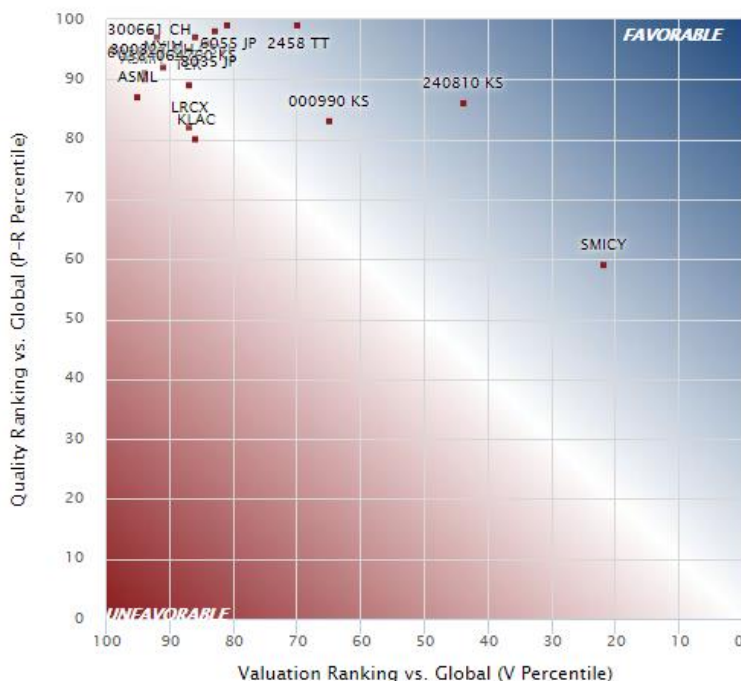
### Semiconductors & Processing Equipment (+): The 2020 Improver- More to go in 2021

Figure 37 is a list of the top Semi's & SPE picks from our top Global Tech screens (Figure 21 & 24).

Figure 37: Semi's & SPE Top Picks

Name	Ticker	Country	Mkt Cap (\$mm)	EVA Margin (%)	EVA Momentum (%)	PRVit Score	Profitability Score (P)	P2 Profitability Trend	Risk Score (R)	Valuation Score (V)	PX CHG % 1 YR
ASML HOLDING NV -ADR	ASML	Netherlands	213,761	18.8%	14.9%	63	97	95	59	95	71.8%
LAM RESEARCH CORP	LRCX	US	72,604	17.9%	5.8%	61	95	85	68	87	70.4%
TOKYO ELECTRON LTD	8035 JP	Japan	61,542	13.8%	2.9%	68	95	87	26	84	63.8%
KLA CORP	KLAC	US	43,781	19.2%	6.9%	61	94	86	71	86	63.7%
MAXIM INTEGRATED PRODUCTS	MXIM	US	25,241	16.7%	5.3%	72	91	81	32	91	53.6%
TERADYNE INC	TER	US	21,950	17.0%	14.6%	72	97	95	53	87	94.5%
SEMICONDUCTOR MFG INTL CORP -ADR	SMICY	Hong Kong	19,178	5.4%	18.4%	94	80	93	87	22	62.7%
ASM INTERNATIONAL NV -ADR	ASMIY	Netherlands	11,790	21.6%	12.4%	69	99	98	55	94	94.7%
HANGZHOU FIRST APPLIED MATER	603806 CH	China	11,027	8.0%	9.0%	68	92	93	37	94	165.6%
SG MICRO CORP	300661 CH	China	6,415	15.0%	14.7%	70	97	97	34	99	52.0%
DB HITEK CO LTD	000990 KS	SK	2,229	15.0%	7.0%	86	93	93	63	65	95.0%
WONIK IPS CO LTD	240810 KS	SK	2,031	12.1%	25.9%	97	95	91	58	44	26.8%
LEENO INDUSTRIAL INC	058470 KS	SK	1,994	24.0%	7.8%	83	97	92	26	92	119.5%
ELAN MICROELECTRONINCS CORP	2458 TT	Taiwan	1,768	21.6%	13.9%	86	99	99	16	70	79.7%
JAPAN MATERIAL CO LTD	6055 JP	Japan	1,453	13.0%	5.0%	78	94	90	9	81	-23.2%
SINO WEALTH ELECTRONIC LTD	300327 CH	China	1,400	12.7%	4.5%	83	93	86	10	93	21.4%
TOKAI CARBON KOREA	064760 KS	SK	1,308	20.5%	4.7%	88	97	93	24	86	90.2%

Figure 38: Semi's & SPE Top Picks PRVit Heat Map



Similar to the Software industry our attractive Semi's & SPE firms are mainly positioned in the upper left 'Expensive But Worth It' zone. The firms have a high level of Quality (P-R) driven by high Profitability scores and high levels of Valuation. The tradeoff between an expensive Valuation and high level of Quality is favorable.

## Industry Review & Outlook

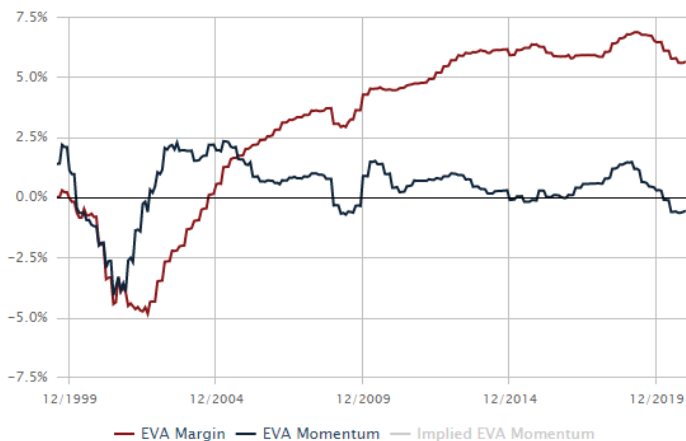
### IT Services (+): Bottoming in EVA Fundamentals

The global IT Services industry faced weakening EVA Fundamentals (**Figure 40**) ahead of the pandemic, with EVA Momentum declining from early 2019 before turning negative in March last year. EVA Fundamentals do look to be bottoming with EVA Momentum around the 2008 lows which makes us more positive. Expectations for EVA growth have risen and FGR (**Figure 41**) is at a 17-year high (**Figure 25**). PRVit is favorable as the high Quality (P-R) score offsets the higher than sector Valuation score.

**Figure 39: IT Services PRVit Ranking (Weighted Average)**

IT Services	Global	N America	Europe	Asia ex	JPN	MEA
PRVit Score	65	67	79	32	50	61
Quality (P-R)	68	56	83	38	68	84
Valuation Score (V)	59	46	59	66	61	81
EVA Margin (%)	5.7%	1.3%	4.5%	-14.2%	7.3%	5.6%
EVA Momentum (%)	-0.5%	1.3%	0.3%	3.3%	-3.4%	4.3%

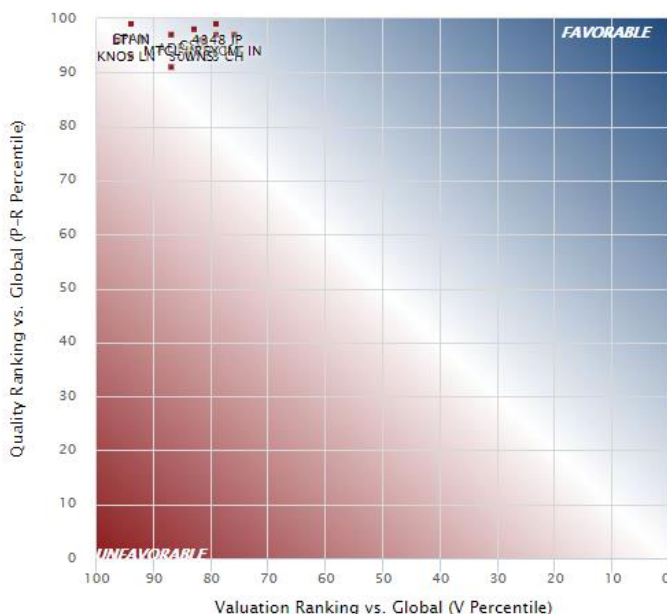
**Figure 40: IT Services EVA Fundamentals**



**Figure 41: IT Services FGR**



**Figure 42: IT Services PRVit Heat Map**



### Top Picks

AUTOMATIC DATA PROCESSING	ADP
HCL TECHNOLOGIES LTD	HCLT IN
EPAM SYSTEMS INC	EPAM
LARSEN & TOUBRO INFOTECH	LTI IN
REPLY SPA	REY IM
MINDTREE LTD	MTCL IN
LAKALA PAYMENT CORP	300773 CH
WNS (HOLDINGS) LTD -ADR	WNS
KAINOS GROUP PLC	KNOS LN
INFOCOM CORP	4348 JP

## Industry Review & Outlook

### Communication Equipment (=): Cheap is the Current Catalyst

Attractive in Europe and North America and unfavorable in Asia (**Figure 47**). EVA Fundamentals (**Figure 48**) for the industry are solid but have struggled to expand at a meaningful pace. Valuation levels (**Figure 49**) are relatively low, but the industry needs a positive catalyst to outperform.

**Figure 47: Communication Equipment PRVit Ranking (Weighted Average)**

Comm Equip	Global	N America	Europe	Asia ex	MEA
PRVit Score	71	65	78	34	60
Quality (P-R)	64	66	63	55	76
Valuation Score (V)	44	57	29	73	72
EVA Margin (%)	3.6%	0.4%	-0.8%	8.1%	-3.5%
EVA Momentum (%)	0.9%	3.3%	2.1%	-0.8%	-2.2%

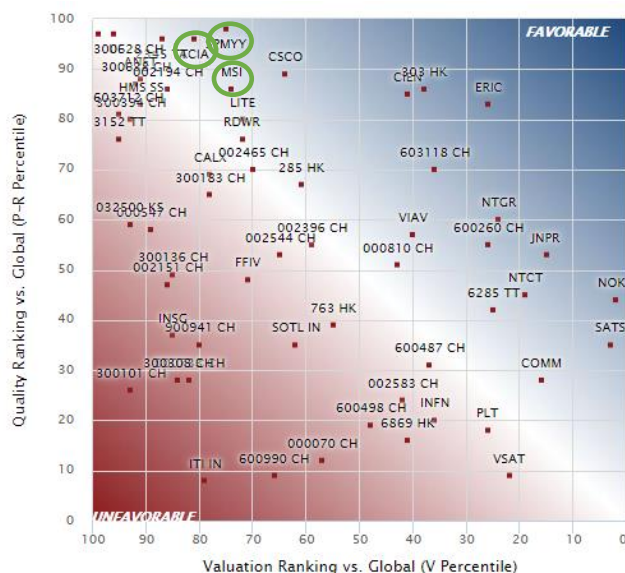
**Figure 48: Comm Equipment EVA Fundamentals**



**Figure 49: Comm Equipment FGR**



**Figure 50: Comm Equipment PRVit Heat Map**



**Top Picks: Motorola Solutions (MSI), Acacia Communications (ACIA) & Spirent Communications (SPT LN/ SPMYY)**

## Industry Review & Outlook

### Electronic Equipment (=): Expectations Rising as EVA Fundamentals Hover Around Zero

The industry is more attractive than at the beginning of 2020. Improvements in EVA Fundamentals (**Figure 52**) started from August last year, however, the industry has historically struggled to return above the cost of capital and fails to warrant much of an FGR premium (**Figure 53**) at this point. With expectations rising for growth in EVA, we will need to see an improvement in EVA Drivers (**Figure 54**), most likely to come from a top line recovery (grey bars) to sustain the rally in market value. Europe & Japan are the most attractive regions (**Figure 51**) with North America looking unfavorable.

**Figure 51: Electronic Equipment PRVit Ranking (Weighted Average)**

Elec Equip	Global	N America	Europe	Asia ex	JPN
PRVit Score	66	28	79	45	75
Quality (P-R)	55	28	83	62	65
Valuation Score (V)	34	68	59	61	25
EVA Margin (%)	0.2%	-6.5%	4.5%	4.9%	0.3%
EVA Momentum (%)	-0.4%	-2.1%	0.3%	0.4%	-1.1%

**Top Picks: Anritsu (6754 JP) & Simpo Technology (6121 TT)**

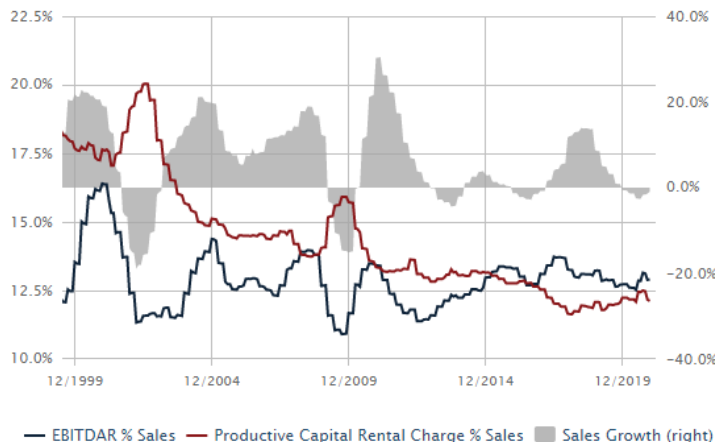
**Figure 52: Electronic Equipment EVA Fundamentals**



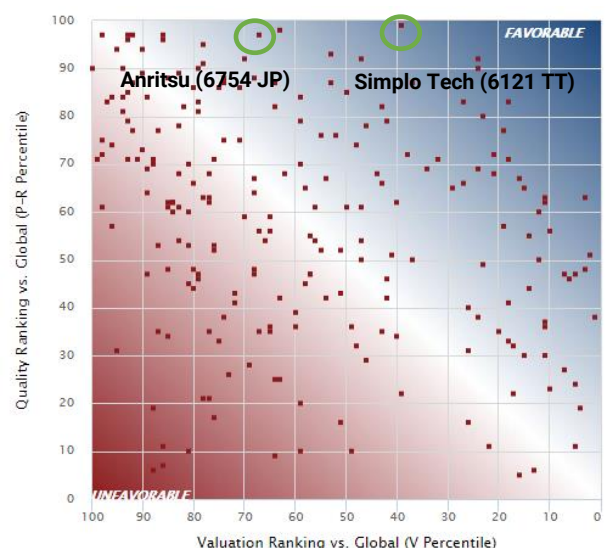
**Figure 53: Electronic Equipment FGR**



**Figure 54: Electronic Equipment EVA Drivers**



**Figure 55: Electronic Equipment PRVit Heat Map**



## Industry Review & Outlook

### Technology Hardware, Storage & Peripherals (=): Closer to Peaking Out?

The industry has seen improving EVA Fundamentals (Figure 44) since October 2019, with new incremental growth in EVA from September 2020. The main concern is a potential slowing in Profitability Trend at a time when expectations for growth have continued to rise. FGR (Figure 45) is back to pre- GFC levels. Europe has the highest level of Valuation but also the highest level of Quality (Figure 43). Japanese industry stocks look cheap with their above global industry levels of Quality (P-R).

Figure 43: Technology Hardware PRVit Ranking (Weighted Average)

Tech Hardware	Global	N America	Europe	Asia ex	JPN
PRVit Score	65	40	79	55	81
Quality (P-R)	62	51	96	54	69
Valuation Score (V)	44	67	84	52	22
EVA Margin (%)	4.6%	5.1%	12.8%	-1.1%	-0.4%
EVA Momentum (%)	0.9%	-0.1%	10.3%	1.1%	0.6%

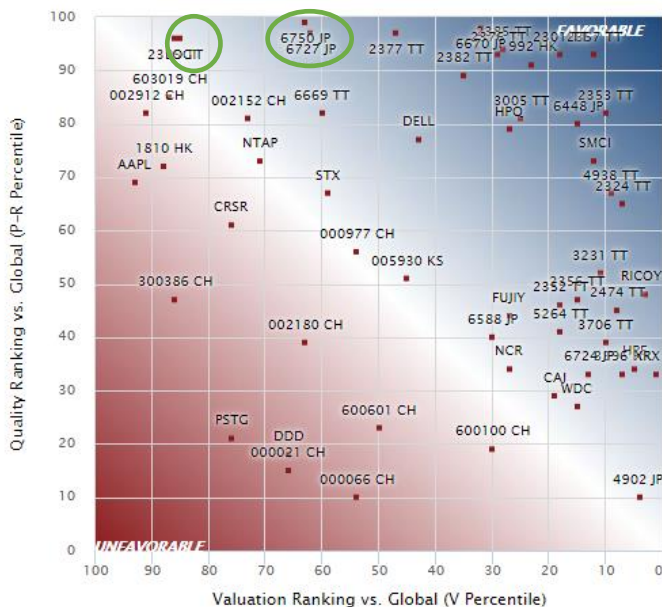
Figure 44: Technology Hardware EVA Fundamentals



Figure 45: Technology Hardware FGR



Figure 46: Technology Hardware PRVit Heat Map



Top Picks: Logitech (LOGI), Eelcom (6750 JP) & Wacom (6727 JP)

## About ISS-EVA

We are an independent equity research provider offering investing insights through the use of our proprietary Economic Value Added (EVA) framework. EVA converts accounting profits into economic profits and charges businesses for the use of Invested Capital. EVA is superior to traditional measures of profit because it is comparable across companies, industries, and countries, links to a consistent, transparent valuation framework, and provides a unique, unbiased view of Quality, Value, and Growth.

Our experienced team of analysts offers both fundamental and quantitative company analysis through written research, bespoke research, a stock selection model, an online analytical tool offering 16,500 companies as viewed through the EVA framework, custom screening, and portfolio analysis.

## Key EVA Concepts

**The value of a firm = Capital + PV of EVA**

If EVA is increasing then the intrinsic value of the firm is too, suggesting that market value should follow (and vice versa).

**EVA = NOPAT - Capital Charge**

EVA is profit after all costs, including the cost of giving shareholders a decent return.

**EVA Margin = EVA / Sales**

A true economic profit margin covering income and asset efficiency. Our EVA Income Statement examines EVA's line item drivers and offers key insights into business profitability.

**EVA Momentum =  $\Delta$  EVA / Sales**

An incremental EVA growth rate indicator and key valuation signal and screening measure. The more positive the Momentum, the greater the growth in EVA, and upward pressure on shareholder returns. Inflections in EVA Momentum are an early and more reliable indicator of stock price inflections.

**EVA Shock =  $\Delta$  EVA Momentum**

Changes in EVA Momentum is a powerful signal within our framework, with significant relationship with stock price performance.

**Market Implied Momentum (MIM)**

The annual EVA improvement required for 10 years to justify the prevailing market enterprise value, expressed as a percent of sales; represents a market implied, long-range EVA margin improvement target.

**Future Growth Reliance (FGR) = (Market implied value of future EVA growth) / EV**

Measures the % of a company's total enterprise value represented by expectations for future growth in EVA. FGR is key to understanding embedded expectations today and versus history. A low FGR versus history coupled with improving EVA trends indicates that the market is not pricing in the improving business model.

## Additional Resources

evaExpress.com ([link](#)): Our online offering provides a comprehensive suite of fundamental and quantitative tools utilizing the EVA framework

EVA for Investors ([link](#)): A full introduction to the key EVA concepts and metrics

Best Practice EVA ([link](#)): A summary of Bennett Stewart's most recent book on EVA, available for purchase on [Amazon.com](#)

What Determines TSR ([link](#)): Insight into the relationship between EVA and stock prices

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