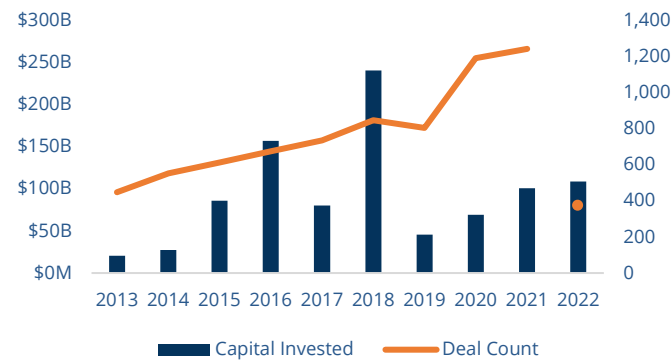
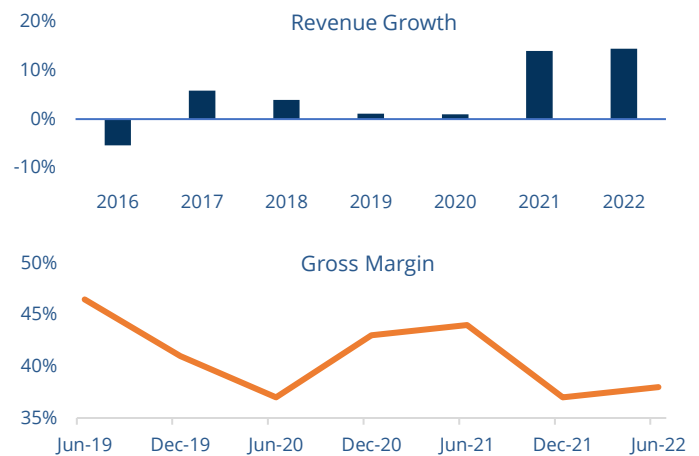


M & A ACTIVITY



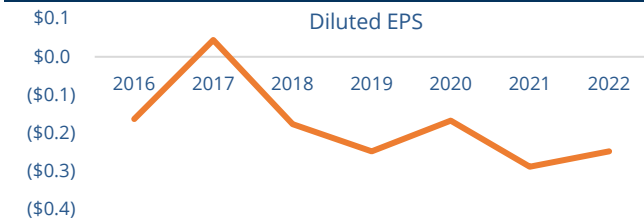
- Primary motive is to gain new technologies and to enhance or expand the product portfolio. Among established companies, filling specific tech-related voids is key while large players are racing towards next generation chips
- Supply chain interruptions in 2021 contributed to the already intensifying problem of chip shortage. Efforts are being made now to localize the manufacturing to counter such problems in the future
- With demand increasing, the hunt for talent and continued digital transformation is on. More M&A activity is expected in the coming months as companies aim to expand production capacity
- The general trend in semiconductor M&A activity shows a shift to a greater number of smaller deals due to greater government intervention and regulatory scrutiny of larger transactions
- In the coming years, numerous strategic acquisitions of small to mid-size are expected as firms aim to open new markets and strive to add targeted capabilities
- Note: In the graph above, the deal count for 2022 only includes deals during the first half of the year. The trend of numerous small-sized deals is expected to continue for the year 2022

TRENDS IN REVENUE GROWTH AND GROSS MARGINS



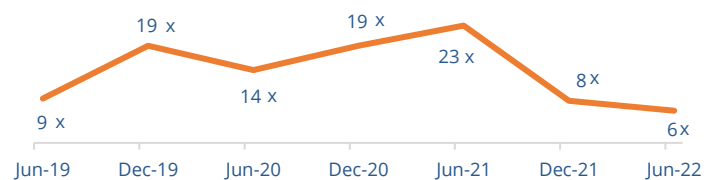
- Revenue grew in 2021 and 2022 due to price increases as a result of increased demand, especially from the industrial and automotive industries
- Continued shortages in supply increased pricing power in this already highly concentrated industry, thus pushing up prices even more
- High COGS drove down the Gross Margins towards the end of 2021, which remained low in 2022. COGS has been increasing due to higher prices of raw material inputs which have risen due to supply shortages and inflationary pressures
- The recent situation between Russia and Ukraine certainly did not help - about 70% of the world's semiconductor-grade neon gas, a key raw material, is supplied by Ukraine, while about 35% of the palladium used by the US to make memory semiconductors is supplied by Russia
- The recent rise in gross margin during mid-2022 shows the potential increase in localized manufacturing and vertical integration M&A transactions that have driven down COGS by lowering the cost of raw material inputs

EARNINGS PER SHARE



- Diluted EPS has been negative over the last several years. The 2021 decline is due to increasing cost of raw material inputs and supply shortages
- However, increased localized manufacturing, expanded production capacity and vertical integration led to an increase in income during 2022, allowing diluted EPS to slightly bounce back year to date

TREND IN INDUSTRY EBITDA MULTIPLES



- In the last 12-months, a negative trend is visible in the EV/EBITDA multiple driven by rising EBITDA due to the increasing gross margin as explained above. The latest EBITDA multiple is a low watermark for the semiconductor industry, allowing investors and strategics to buy-in cheaper than anytime in the last three years

NOTABLE M & A DEALS



In Feb 2022, MixComm was acquired by Sivers Semiconductors for \$ 135 million to increase customer base, expand capacity, broaden IP portfolio and increase its presence across the US, Europe and Asia.



In March 2022, Saankhya Labs was acquired by Tejas Networks for \$ 37 million to address the growing market opportunity by expanding wireless product offerings.



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