

Company Overview

Description:

Linear Technology makes integrated circuits that transform analog signals – which convey information about real-world phenomena such as temperature, pressure, sound or speed – into digital form so it can be used in electronic devices. Linear products control power and regulate voltage in devices, such as cell phones, networking products, computers & notebooks, video/multimedia, security monitoring devices, digital cameras and MP3 players, medical devices, factory automation, industrial instrumentation, automobiles and military systems.

- The company has over 7,500 proprietary products.
- It markets to more than 15,000 OEM manufacturers (not direct to consumers).
- 70% of its sales come from international customers.
- Arrow Electronics is their largest customer at 13% of revenues (all others less than 10%)
- 833 employees are directly involved in R&D; no labor unions.

How the Company Makes Money:

- Linear is a great way to play the chip industry without assuming all the high risk.
- Unlike digital technology, with high speed, high volume, and high competition, the analog niche is more labor-intensive and more sophisticated, making chips more proprietary.
- Revenue stream is stable and diverse.
- Business model is less capital-intensive than digital.
- Management seeks to be first to market with proprietary products. That gets them premium pricing with relatively no competition in new niches.
- Product cycles can last about 10 years.
- By the time the competition catches up, they leave the niche for new ones.
- Linear has one of the highest profit margins in the business – in excess of 70% every year since 1996. All this lends itself to a wide economic moat.
- Most of the growth (past and future) comes from revenue expansion as new products are brought to market.

Financials:

Linear is a mid-cap with annual sales of \$1.07 billion compared to the average semiconductor company which has sales of \$1.29 billion. The company has \$1.8 billion in cash and no debt.

Per the SSG, sales and earnings, since 2002, have averaged 27% and 32%, respectively. Between losing some royalties this year, and having to expense stock options, Q-over-Q comparisons are not realistic. The SSG shows -4% sales in the most recent quarter, but it was actually 11%. That affected EPS which dropped 10%. Gross margin came in at 78.6% (59.1% Pre-tax Profit).

The reduction in royalties can be seen on the sales line on the SSG graph. Subsequently, the pre-tax profit and EPS lines follow sales. Per the analysts, this is a temporary setback, which may be a good buying opportunity. Trends for pre-tax profit and ROE are moving the right direction.

In 2005, Linear hiked its dividend by 50%, and then recently bought back 5.7 million shares for \$202 million.

Management & Governance:

- As stated in the last section, the SSG's report card looks good; shy of the downtrend in sales due to the end of a royalty contract.

- MSN's Stock Scouter gives the company an overall rating of 8 out of 10. They like the fact that large institutions are actively acquiring LLTC's shares.
- Morningstar thinks executive pay is fairly conservative; stock options are more generous yet not egregious by industry standards.

Key Developments, News & Articles:

There was nothing that would affect our judgments.

Business Outlook

Outlook on the Company:

- Linear is a technology leader in its field.
- The company's products have light exposure to the PC market.
- Industrial and Auto markets now account for 39% of total revenue.
- Consumer products, which are more fickle, account for only 11% of total revenue.
- A design engineer shortage gives Linear a leg up to provide custom design services since "design-to-assembly & testing" are all in-house.
- Feature-rich 3G phones (now a small market) is due to take off; w/be a multi-year profit center.
- Linear is in a cyclical industry and remains vulnerable to boom-bust cycles.
- Margins are at unsustainable rates and will eventually contract.

Outlook of the Industry:

The semiconductor industry has many competitors; most of them are small. It had a decent year in 2005 after a tough 2004. The high performance analog market boasts relatively stable pricing, long product cycles and high profit margins. Capital expenditures are less for analog, since design is more important than manufacturing. Analog engineers are in short supply as major US research universities stopped teaching analog for two decades. However, it's still considered a cyclical industry, and it that doesn't seem to be changing. The last dramatic drop in demand came in 2002 and 2003.

Value Line looks cautiously at this industry. Expansion looks good as more complex products demand high performance designs. Value Line looks for earnings growth in analog of 15% to the end of the decade. BUT, as end users work to curb their own costs by limiting their inventories to just-in-time deliveries, the industry's earnings will be harder to predict.

- VL ranks the Industry near the top for year-ahead relative price performance.
- VL is cautiously optimistic about the next 12-18 months as revenues grow modestly.
- Most companies have good 3-5 year prospects, albeit bumpy.
- Third generation (3G) phones will continue to fuel this segment.
- Wireless technology will be important to this industry as it grew 20% in 2005; looking for 15% in 2006.
- VL projected revenue growth for the semiconductor group is 10% for the coming year.

Comparison to Peers:

Direct competitors are:

Company	Est. Sales Growth	Quality Rating	Projected Return	Projected Net Profit Margin
Analog Devices, Inc.	12.4%	53.7	14.6%	25.1%
Maximum Integrated Products	13.1%	63.7	20.4%	26.3%
National Semiconductor	10.6%	39.0	20.2%	25.5%
Texas Instruments, Inc.	N/A	N/A	N/A	N/A
Linear Technology Corporation	15.9%	69.4	20.1%	39.6%

Linear is a smaller player in the analog sub-segment, but note that it exceeds its larger, direct competitors on most metrics. Manifest/Value Line projects the industry to grow at 12.5% and 25% in sales and net margin, respectively.

Judgments

Company Guidance:

The only meaningful guidance from the company was that future success is more dependent on technical abilities and creative skills of personnel, rather than on its patents. I did not listen to the conference call, ONLY BECAUSE this a sample report.

Outside Estimates & Valuations:

- Morningstar said that, even though a recent slowdown held back revenues, Linear will probably complete the year with 8.5% sales growth and 78.5% in gross margin.
- Morningstar is projecting 13% sales growth annually for the next several years.
- Gross margins will gradually decline over the years since 80% is not sustainable.
- They expect mid-70s gross margins going forward.
- Their model suggests sustainable earnings growth of 16%.
- Nevertheless, Morningstar expects double-digit growth well into the future.
- Recommends the shares as a Strong Buy for long-term investors.
- Yahoo's consensus 5-year EPS growth rate is 20%.
- Using the Yahoo 70% rule from Manifest, that leaves us with a 14% projected sales growth rate.
- Value Line's per share sales and earnings estimates are 14% and 15%, respectively.
- S&P (through OPS) is projecting 20% EPS growth.
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Judgments on the SSG:

- I used Manifest's Fundamental Forecast figures and the SSG Preferred procedure.
- I used sales projections of 15.9%, net margin of 39.6% and shares outstanding of 327.1.
- This gave me 15% EPS going forward (same figure I would have chosen on my own).
- I didn't like MI's P/E option of 40 and 20 (average of 30).
- I used last year's high P/E of 29.5, and I calculated the low as 20% less than the 52 week low, giving me \$26 for my low price.
- This gave me a 5:1 upside ratio, and a PAR of 18.9%.

Where I got my research:

All this information was gathered in about 20 minutes, in no particular order:

Value Line – Cover page for Semiconductors, Company Report & Industry Report
Morningstar – Analyst Report, Data Interpreter, Industry Peers Report
Hoovers.com – Company Overview (for description & top competitors)
MSN.com – Stock Rating Summary, News, Articles, Key Development pages
Manifest – Company Fundamental Forecast, Industry Page, Industry Screen
Motley Fool – Search for recent articles

Company Website:

Review site, look for news, read business section of 10K, listen to conference call(s).
(None of which I did because this was a sample report, but I can assure you I would have done this FIRST had it been my turn.)