

Analog Devices (ADI)

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Disclaimers

- I am not a registered investment advisor and I do not offer any investment advise
- No parts of this talk are suggestions to invest, not invest, buy or sell any kind of securities or other financial instruments

Analog Devices - business

Analog Devices - business (cont'd)

- Competition:

Analog Devices - Misc thoughts

- What can go wrong?
- Opportunities:

Strategic considerations

- Moat (*switching costs, habit, low cost*):
 - What are the moats? ??.
 - What does it take to sustain the moats? ??
 - Bargaining power of suppliers/customers? Not big
- Is it a low risk business? Somewhat.
- Is there high uncertainty? ??
- How capital intensive is the business? Not really
- Future growth - unknown
- Are the revenues and cash flows of the business sustainable or overstated / understated due to boom or bust conditions? Not clear

Management

- I don't usually do management analysis. Included for template completeness
- No dilution
- Can I trust management?
- Management shareholding (> 10%)
- Management incentives?
- Are the salaries too high?
- Is there heavy insider buying?
- Is there heavy insider selling?
- Do I like the management? (Operators, capital allocators, integrity)
- Profitable reinvestment
- What has management done with the cash?
- Where is Free Cash Flow invested? Share buybacks, dividends, reinvested, ROE & ROCE, incremental BV

Piotroski Score

Only applicable to Graham Cos - N/A to ADI

1. Net Income: Bottom line. Score 1 if last year net income is positive.
 2. Operating Cash Flow: Better earnings gauge. Score 1 if last year cash flow is positive.
 3. Return On Assets: Measures Profitability. Score 1 if last year ROA exceeds prior-year ROA.
 4. Quality of Earnings: Warns of Accounting Tricks. Score 1 if last year operating cash flow exceeds net income.
 5. Long-Term Debt vs. Assets: Is Debt decreasing? Score 1 if the ratio of long-term debt to assets is down from the year-ago value. (If LTD is zero but assets are increasing, score 1 anyway.)
 6. Current Ratio: Measures increasing working capital. Score 1 if CR has increased from the prior year.
 7. Shares Outstanding: A Measure of potential dilution. Score 1 if the number of shares outstanding is no greater than the year-ago figure.
 8. Gross Margin: A measure of improving competitive position. Score 1 if full-year GM exceeds the prior-year GM.
 9. Asset Turnover: Measures productivity. Score 1 if the percentage increase in sales exceeds the percentage increase in total assets.
- Total: / 9

Is it a good business?

- >10 year history of profits
- ROE:
 - 2010: 22 2011 q1: 26
- Margins
 - 2009: 12 2010:26 2011:30
- Growing earnings: 3 year sales growth 4%, earnings growth 4%
- No dilution
- Strong balance sheet
 - Debt << cash/short term investments
- $ROIC = \text{Earnings} / (\text{Equity} + \text{Debt} - \text{Cash}) = \text{Earnings} / (\text{Assets} - \text{non-debt liabilities} - \text{Cash})$
 - \sim ROE

Is it a good business? Cash flow

- Strong cash flow
 - 2011 Q1 222M earnings, 216M operating cash flow, 170M FCF (FCF = OCF - capital expenditures)
 - Free Cash Flow/Share higher than dividends paid

Is business cheap? - Buffettology calculations

- ROE 15%
- Earnings in 10 years = $ROE * Equity * (1 + ROE)^9 = \$1.8B$
- Equity in 10 years = $Equity * (1 + ROE)^9 = \$11.8B$
- Market cap = $1.8B \times P/E (15) = \$26.6B$
- Rate of return = **7%** after tax (calculations omitted)

- 9 year earnings growth: 10%. Assuming 10% earnings growth: **9%** share price growth.

Is business cheap? DCF

- Discounted cash flow
 - Current earnings of 888M
 - 10% growth for 5 years, leveling after that
 - 15% discount -> **\$8.6B** current valuation (if you buy company at <\$8.6B, you will get 15% return or higher)
 - 5% growth for 10 years, leveling after that
 - 15% discount -> **\$8B** current valuation
 - **10% growth for 10 years**, leveling after that
 - 15% discount -> **\$11B** current valuation
- Owner's yield = earnings / (market cap + debt - cash) = earnings/EV
 - $888\text{M} / (12\text{B} - 2.4\text{B}) = 9\%$
- What makes up the margin of safety? Strong market position, strong current earnings yield, strong balance sheet
- Is there a sufficient margin of safety? Maybe

Is business cheap? - Graham investment considerations

- N/A for ADI - included for completeness
- 3.6 P/Book - not a net net
- Altman Z score (http://en.wikipedia.org/wiki/Altman_Z-score)