CF Industries Holdings (CF)

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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
Nitrogen and phosphate fertilizer products
Nitrogen (13.0 million tons 2012):
  - Ammonia (2.8M, 1.7B$), granular urea (2.6M, 1.1B$), urea ammonium nitrate solution (6M, 1.9B$), ammonium nitrate (.8M, .2B$), urea liquor, diesel exhaust fluid, and aqua ammonia
  - 5 nitrogen fertilizer manufacturing facilities in Donaldsonville, Louisiana (the largest nitrogen fertilizer complex in North America), Port Neal, Iowa, Courtright, Ontario, Yazoo City, Mississippi and Woodward, Oklahoma;
  - 75.3% interest in Terra Nitrogen Company, L.P. (TNCLP), a publicly traded limited partnership of which we are the sole general partner and the majority limited partner and which, through its subsidiary Terra Nitrogen, Limited Partnership (TNLP), operates a nitrogen fertilizer manufacturing facility in Verdigris, Oklahoma;
  - 66% economic interest in the largest nitrogen fertilizer complex in Canada which we operate in Medicine Hat, Alberta through Canadian Fertilizers Limited (CFL), a consolidated variable interest entity (all interests to be acquired)
  - 50% interests in GrowHow UK Limited, a nitrogen products producer in the United Kingdom; Point Lisas Nitrogen Limited, an ammonia producer; and KEYTRADE AG, a fertilizer trading company
CF Industries Holdings - business (cont’d)

• Phosphate (2 million tons 2012):
  • diammonium phosphate (1.6M, .8B$) and monoammonium phosphate (.4M, .2B$)
  • one of the largest integrated ammonium phosphate fertilizer complexes in the United States in Plant City, Florida
  • the most-recently constructed phosphate rock mine and associated beneficiation plant in the United States in Hardee County, Florida;
CF Industries Holdings - Misc thoughts

• What can go wrong?
  • Competition, new facilities going up
  • Bad agri years pushing fertilizer purchases and prices down
  • Nat gas price going up
CF Industries Holdings - Misc thoughts

• Opportunities:
  • Agri needs to keep up with feeding growing population
  • Limited competition in some locations
  • Lowest price producer in some locations
**Strategic considerations**

- **Moat (switching costs, habit, low cost):**
  - What are the moats (is there brand moat)? Locations perhaps, **no brand moat**
  - What does it take to sustain the moats? N/A
  - Bargaining power of suppliers/customers? No power

- Is it a low risk business? **Medium risk.**

- Is there high uncertainty? **Medium uncertainty.**

- How capital intensive is the business? **Somewhat.**

- Future growth - **Unknown**

- Are the revenues and cash flows of the business sustainable or overstated / understated due to boom or bust conditions? **Perhaps overstated due to high sales/earnings in past years**

- Will it exist in 10 years? **Yes**

- Will it exist without product change in 10 years? **Yes**
Checklist

1. Can I in one sentence say exactly what the company does?
2. Operating cash flow higher than earnings per share?
3. Free Cash Flow per share higher than dividends paid?
4. Debt to equity below 35%?
5. Debt less than book value?
6. Long Term debt less than 2 times working capital?
7. Is the debt to EBITDA ratio less than 5?
8. What are the debt covenants?
9. When is the debt due? All at the same time?
10. Are pre-tax margins higher than 15%?
11. Free cash flow margin higher than 10%?
12. Does the cash belong to the company?
13. Current asset ratio greater than 1.5?
14. Quick ratio greater than 1?
15. Growth in Earnings Per Share?
16. EBIT / Assets > 20%
17. Management shareholding > 10%?
18. Altman Z score > 3?
19. Piotroski F-Score of more than 7?
20. Is there substantial dilution?
21. What is the Flow ratio (Good < 1.25, Bad > 3)
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 CF
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?

- 7 year history of profits
- **ROE:**
  - 2010: 8 2011: 431 2012: 29
- **Margins**
  - 2010: 9 2011: 25 2012: 30 - not sustainable?!
- 3 year sales growth 33%, earnings growth 72% - not sustainable?!
- No dilution
- Strong balance sheet
  - Cash >> debt
- **ROIC = Earnings / (Equity + Debt - Cash) = Earnings / (Assets - non-debt liabilities - Cash)**
  - ~= ROE
Is it a good business? Cash flow

• Good 2012 cash flow:
  • 2012 1.8B earnings, 2.4B operating cash flow, 1.8B 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 = $3.3B
• Equity in 10 years = Equity*(1+ROE)^9 = $22B
• Market cap = 3.3B x P/E (15) = $50B
• Rate of return = 13% after tax (calculations omitted)

• 9 year earnings growth: 49% (not sustainable). Assuming 10% earnings growth: 19% share price growth.
Is business cheap? DCF

- Discounted cash flow
  - Current earnings of 1.8B (FCF 1.8B)
  - 10% growth for 5 years, leveling after that
    - 15% discount -> $18B current valuation
  - 5% growth for 5 years, leveling after that
    - 15% discount -> $15B current valuation
  - 10% growth for 10 years, leveling after that
    - 15% discount -> $22B current valuation
- Owner’s yield = earnings / (market cap + debt - cash) = earnings/EV
  - 1.8B / (12B-.5B) = 16%
- What makes up the margin of safety? Valuation
- Is there a sufficient margin of safety? Yes
Is business cheap? - Graham investment considerations

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