AN EXAMPLE-BASED, DIAGNOSTIC INVESTIGATION OF VALUE CREATION AND VALUE DESTRUCTION BY CORPORATE ACTIVISTS

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Abstract: This paper investigates, through an example-based scenario, the extent to which corporate activists create or destroy shareholder value; there are five high-profile campaigns analyzed related to four major players. The foundation of the analysis is a variant of DCF model which examines the cash flows to equity. In 4 out of 5 cases the financial metrics are computed in order to assess the performance of the subject company ex-ante and ex-post activists’ involvement.

Keywords: Shareholder value, value creation/ destruction, buyback, merger proposal, spin off, activism.

Acknowledgements
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For better understanding this article, it is divided as follows:
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- Nelson Peltz – PepsiCo-Mondelez, Merger proposal Figure 2
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- Conclusion
- Exhibits: Exhibit 1.1; Exhibit 1.2; Exhibit 1.3; Exhibit 2.1; Exhibit 4.1; Exhibit 4.2; Exhibit 4.3; Exhibit 5.1; Appendix 1; Appendix 2
- References
1. **Notes**

The financial metrics were calculated by the author, unless referenced accordingly. The accounting information (income statement, statement of financial position, cash flows figures), used in the computation of the metrics, was taken from the Financial Times, Financials section, unless stated otherwise or referenced accordingly.

Additional high-profile examples of corporate activism are illustrated in Appendix 1. However, only three are briefly analysed in the appendix: TWA (Carl Icahn), Genzyme (Carl Icahn) and Xenoport (Greg Taxin).

Please refer to Appendix 2 for a better understanding of the framework used to explain how and what impacts upon shareholder value.

**Acronyms:**
- APP = acquisition purchase premium (nominal figure)
- APP% = acquisition purchase premium expressed in percentage terms in text but on a 0-1 scale in calculations
- CAP = competitive advantage period
- CAPM = capital asset pricing model
- CF = cash-flow
- COGS = costs of goods sold
- DCF = discounted cash flow
- ECF = equity cash flow
- NPV = net present value
- PV = present value
- ROCE = return on capital employed
- ROE = return on equity
- VC = value creating/creative/creation
- VD = value destroying/destructive/destruction
- WACC = weighted average cost of capital

Corporate activism is building momentum and it is going global. This year, the number of activist campaigns exceeded 200 (13D Amendments) as compared to 27, 13 years ago. Activism has no boundaries; in addition to going global, it extends to a variety of firms, regardless of size and of the corporate governance quality: Apple, PepsiCo and India Coal are just a few examples (Lipton, 2013).

This paper will discuss high-profile examples of activists’ value creation and value destruction proposals/actions based on a variant of DCF valuation methodology which is concerned with the cash flows to equity; the model is explained in Appendix2. The conclusion will provide an answer to why the differences in value arise.

2. **Carl Icahn – Apple, Share buyback**

Supporting the intrinsic value school, Icahn believes that Apple’s shares are undervalued and suggests a share buyback of $150bn. In addition, this amount should be borrowed rather than expatriated to the U.S. (Bradshaw and Foley, 2013).
The buyback can impact upon value in two ways: signaling and leverage (Pettit, 2001).

Signaling – Value destruction
Investors may believe Apple has no other alternative investments. Apple’s smartphone market decreased to approximately a third of Samsung’s and iPad is losing market share to competitors (Amazon, Microsoft, Google). Investors may see value creation if Apple invests in 3D imaging and motion control sensor in order to launch the revolutionary iTV (Botha and Gregorio, 2013), thus creating a new market; this will increase Apple’s advantage horizon (CAP) and cash flows which will result in value creation.

Leverage – Value creation
Using Mauboussin’s (Mauboussin, 2011) methodology, Apple’s rate of return for continuing shareholders equals 11.69% (Exhibit 1.1). This is higher than apple’s cost of equity, 5.74 % (Exhibit 1.2), hence the buyback results in VC for continuing shareholders.

Figure 1 illustrates the two main financial effects associated with Icahn’s share buyback proposal.

Increasing the gearing ratio, will result in decreasing WACC because the cost of debt is generally 2 to 2.5 times cheaper than the cost of equity (Clark and Mills, 2013, p. 46). The direct implication is VC because the CFs will be discounted at a lower rate, yielding higher company valuation.

A lower WACC, implies more investment opportunities; there will be more potential investments with a positive NPV.

The tax shield (52.5bn, Exhibit 1.3) results in VC: higher CFs increase company value.

Overall the $150bn buyback results in VC in the short-run, but does not guarantee VC after Icahn cashes out. This is a high-growth, fast-developing industry and innovation
is the key. Reinvestment in innovation will create new markets for Apple and increase its CAP, which will create value in the long-run. Increasing the CAP is crucial for creating shareholder value because during CAP the company benefits from a higher growth rate within a two-stage DCF valuation model.

3. Bill Ackman – J.C. Penney, replace CEO (Mike Ullman with Ron Johnson)

Ron Johnson’s poor managerial decisions:
- Changed pricing strategy – replaced discounted prices with fair prices;
- Did not perform a trial on the new pricing strategy to test its successfulness by measuring, for example, sales per square foot ratio;
- Rebranded J.C. Penney by attracting boutique stores, changing the shopping experience that customers were loyal to;
- Eliminated signs and visual position leading to incorrect or unreadable prices (Bhasin, 2013);
- The acquisition of Martha Stewart resulted in a lawsuit and in a loss making deal (-$12.54m) (Exhibit 2.1).

The poor management resulted in underperforming financial metrics as indicated below:

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROE</td>
<td>7.12%</td>
<td>-3.79%</td>
</tr>
<tr>
<td>ROCE</td>
<td>7.98%</td>
<td>-0.02%</td>
</tr>
<tr>
<td>Change in cash flow</td>
<td>$(389)m</td>
<td>$(1,115)m</td>
</tr>
</tbody>
</table>

The net change in cash decreased, ROCE and ROE plummeted, resulting in enormous VD. Decreasing cash-flows negatively impact on shareholders’ value and so does the ROE metric as indicated in the DCF approach considered in this paper (Appendix1).

Mr. Johnson’s poor performance results from misunderstanding the behavioral economics behind J.C. Penney’s core customers, who are value orientated versus Apple’s customers who are innovation orientated. The incapability of making the transition/distinction from/between Apple to J.C. Penney resulted in a managerial catastrophe, alienated customers and consequently plummeted financial ratios. This led to significant VD.

4. Christopher Cooper-Hohn – EADS, Sell stake in Dassault Aviation

The following table displays the key metrics for Dassault Aviation, as a separate entity, and EADS (consolidated with Dassault).

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dassault</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROE</td>
<td>7.28%</td>
<td>10.58%</td>
</tr>
<tr>
<td>ROCE</td>
<td>8.00%</td>
<td>10.91%</td>
</tr>
</tbody>
</table>
Mr. Hohn’s suggestion makes financial sense from a shareholder point of view, as he expects as high a ROE as possible from the approximately 1% stake held in EADS. On the other hand, Dassault is clearly more efficient at using its capital. Since ROCE is especially important in comparing capital intensive firms’ profitability, EADS could benefit from Dassault’s efficient use of capital. In addition, Dassault has a significantly lower WACC, which positively impacts upon EADS valuation, using a DCF approach. Should Dassault be sold, EADS’ WACC will consequently increase. This implies that cash-flows will be discounted at a higher rate, therefore, negatively impacting EADS valuation, using a DCF valuation method. This will directly result in VD.

Mr. Hohn should address instead, the issue of high WACC and low ROCE metrics, by undertaking more debt (change in capital structure) and reducing COGS or operating costs respectively.

The VD argument is strengthened by comparing EADS, Boeing Co and Dassault, net income/sales% metric.

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>EADS(consolidated)</td>
<td>2.10%</td>
<td>2.17%</td>
</tr>
<tr>
<td>BoeingCo</td>
<td>4.77%</td>
<td>5.85%</td>
</tr>
<tr>
<td>Dassault</td>
<td>9.60%</td>
<td>12.74%</td>
</tr>
</tbody>
</table>

EADS and subsidiaries are doing poor compared to the main peer/competitor, Boeing Co, while Dassault alone is performing incredibly well, effectively managing operational costs. Dassault’s performance has a positive impact on EADS’ value and should not be sold unless the APP received creates enough financial gains to overcome the negative impact associated with the sale.

5. Nelson Peltz – PepsiCo-Mondelez, Merger proposal

Trian Partners released a white paper (Trian Partners, 2013) suggesting:
A. PepsiCo’s merger with Mondelez, an all-stock transaction, and
B. PepsiCo’s separation of Snacks/Beverages into two separate entities. Only the merger proposal will be analyzed in this paper.

The main reasons for the proposal were the realizable synergies. The NPV and the value gap will, therefore, be calculated in order to assess whether the merger is VC or VD.

The APP% is 16% at an agreed stock price of $35. The market price, APP and the total payable amount are illustrated below (Exhibit 4.1).
Managerial and financial synergies are only mentioned in proposal B, which will not be considered in this paper; the two proposals are described separately and their implementation is not restricted to simultaneity.

The merger’s NPV (Sirower, 1997, p.10) is negative, -$3.42 billion (figure 2). The NPV is a major investment appraisal technique and it is straightforward that a project with a negative figure results in VD because it does not add shareholder value. For the NPV figure to be fundamentally correct, the future cash flow stream has to be discounted to the PV. However, Sirower’s (1997) methodology for merger valuation replaces within the NPV calculation framework the initial investment with the premium paid and the stream of cash flows with the implied synergies. Since no discount occurs in this calculation, it is assumed that the forecasted expense and revenue related synergies are given in PV terms. Discounting, however, does not change the fact that the merger should not be pursued, since the figure is negative; in other words, if discounting was omitted, applying it will only reduce the synergies figure, lowering the NPV of the merger.

On a second note, according to Clark and Mills (2013, p. 92), this transaction results in VD because the ‘APP exceeds the present value of net realizable synergies’ and because the value gap is positive. As defined by Clark and Mills (2013), the VG is the difference between the APP and net realizable synergies. These yields a VG of $3.42 billion (Exhibit 3) and similarly to the NPV investment appraisal technique the merger proposal should not be pursued.

<table>
<thead>
<tr>
<th></th>
<th>ROE</th>
<th>ROCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mondelez</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>10.02%</td>
<td>4.64%</td>
</tr>
<tr>
<td>2012</td>
<td>9.40%</td>
<td>5.08%</td>
</tr>
<tr>
<td>PepsiCo</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The financial metrics calculated above show that PepsiCo is more efficient at deploying shareholder’s funds and at employing its capital, by a great margin. Should a merger take place, PepsiCo’s ROE metric will decrease, leading to value destruction as suggested by the DCF Equity Valuation Model in Appendix2.

Other considerations to take into account:
- Integration risks - Mendelez is already facing restructuring programs because it was the target of prior acquisitions. Trying to integrate Mondelez while facing its own strategic changes can pose high execution risk (Steib and Giraldo et al., 2013, p. 4).
- Restructuring costs - the merger can create additional corporate restructuring costs, reducing cash-flows and the ROE metric, leading to VD.

For the reasons outlined above, PepsiCo’s merger with Mondelez is not value creative and should not be pursued.

### 6. Christopher Cooper-Hohn – Coal India, Price restriction removal and cost cutting

Existing issues:
- Government did not raise prices for approximately 2 years;
- Operating costs% are surging (see table below);
- Inflation makes coal price fall in real terms;

According to Mr. Hohn, Coal India can increase its net profit by $20bn should it remove price restrictions.

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating costs%</td>
<td>29.88%</td>
<td>69.59%</td>
</tr>
<tr>
<td>COGS%</td>
<td>11.20%</td>
<td>10.35%</td>
</tr>
<tr>
<td>ROE</td>
<td>32.62%</td>
<td>36.56%</td>
</tr>
<tr>
<td>ROCE</td>
<td>27.81%</td>
<td>29.25%</td>
</tr>
<tr>
<td>Net income%</td>
<td>19.72%</td>
<td>21.14%</td>
</tr>
</tbody>
</table>

Mr. Hohn’s suggestions:
1. Remove price restrictions - current price $25, market price $70 (Hohn, 2013).
2. Reduce costs - while COGS% decrease by 0.85%, operating costs% more than double.

The elimination of price restrictions will directly result in surging cash-flows, instantly creating value, using a DCF valuation approach. Reducing costs will result in higher ROE and ROCE metrics, which will also increase value as explained in Appendix1.

Mr. Hohn’s $20bn net profit increase suggestion, should the price restrictions be lifted, yields a net profit increase of 717.3%. The result of successfully implementing Hohn’s proposals will result in a VC boom for shareholders.
Activism will inevitably lead to three outcomes: VD, VC or both, depending on the time scale one looks at (Apple’s buyback results in VC in the short-run but may lead to VD in the long-run if research and development is not pursued, thus reducing the advantage horizon). The certain aspect is that activists will inevitably be interested in maximizing personal value because ultimately this is the motivation behind becoming an investor; to cash out high returns. Whether, their financial motivation will positively impact upon shareholders’ value in general, depends on several considerations.

Firstly, timing plays an important role. This refers to whether the activist takes a long or short-term approach to investment. The keener one is in quickly cashing out abnormal profits, the greater the chance for strategic decisions that maximize short-term earnings at the expense of longer-term value to occur.

Secondly, comes the understanding of the overall business. Activists often engage in proxy battles. When those are won, they have the opportunity to take control of managerial decisions. Not understanding the business may result in alienated customers and consequently VD through decreasing cash-flows and profitability metrics, as in the case of J.C. Penney.

Exhibit 1.1

\[
\text{Expected return from a buyback} = \frac{\text{Cost of Equity}}{(\text{Current stock price})/(\text{Intrinsic value})} \times 100
\]

\[
\text{Expected return from a buyback} = \frac{8.79}{(525)/(698.25)} = 11.69\%
\]

Where the current stock price is the buyback price suggested by Icahn and the intrinsic value is the price of Apple’s shares ex-post buyback, as suggested by Icahn (33% increase) (Marcial, 2013).

Exhibit 1.2- Apple’s cost of equity as of 03.12.2013

The cost of equity or the required return to equity, using CAPM, is given by:

\[
R_e = R_f + \beta \times (R_m - R_f)
\]

Where:

- \(R_e\) = Apple’s required return on equity
- \(R_f\) = risk free rate: U.S. 10 year government bond (Bloomberg, 2013)
- \(\beta\) = Apple’s beta (Reuters.com, 2013)
- \(R_m\) = annualized real returns on equities from 1900 – 2012 (Credit Suisse Global Investment Returns Yearbook, 2013)

Apple’s cost of equity equals:

\[
2.83 + 0.84 \times (6.3 - 2.83) = 5.74\%
\]
Considering a 35% corporate tax, an estimate of the tax shield is 
($150bn \times 0.35) = 52.5bn$

Exhibit 2.1

Interactive Stock Chart for Martha Stewart Living Omnimedia Inc (MSO)

(Bloomberg, 2013)

The calculation is computed by finding the market capitalization of Martha Stewart when the acquisition took place and deducting the market capitalization when Mr Johnson left J.C. Penny.

\[(11\text{million shares} \times $3.5) - (11\text{million shares} \times $2.36) = 12.54\text{ million}\]

Exhibit 4.1

The agreed price = $35/share; Outstanding shares = 1,753,790,000; APP% = 16%.

\[
APP = \text{outstanding shares} \times \text{agreed price} \times \text{APP%}
\]

\[
APP = 1,753,790,000 \times 35 \times 0.16 = 9,821,224,000
\]
Market capitalization = outstanding shares * agreed price * (1 – APP%)  
Market capitalization = 1,753,790,000 * $35 * 0.84 = $51,561,426,000

Exhibit 4.2
NPV = net realisable synergies – premium paid = $6.4bn – $9.82bn = −$3.42bn

Exhibit 4.3

Exhibit 5.1
Net income 2013 = $2.8bn
Potential Net income, should price restrictions be removed = $2.8bn + $20bn = $22.8bn.

Appendix 1

<table>
<thead>
<tr>
<th>Activists/Action</th>
<th>Buyback/ Increase dividend</th>
<th>Fire CEO</th>
<th>Disposal of assets, Change in capital allocation</th>
<th>Spin off</th>
<th>Acquisitions/Mergers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carl Icahn</td>
<td>Apple, Time Warner</td>
<td>Genzyme</td>
<td>TWA, Texaco, Transocean</td>
<td>US Steel, CVR</td>
<td>Sanofi-Aventis - Genzyme</td>
</tr>
<tr>
<td>Daniel S. Loeb</td>
<td>Sotheby, Yahoo!</td>
<td></td>
<td></td>
<td>Sony, Penn Virginia</td>
<td></td>
</tr>
<tr>
<td>Bill Ackman</td>
<td>JC Penney</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Nelson Peltz</td>
<td></td>
<td></td>
<td></td>
<td>PepsiCo, Cadbury, Ingersoll-Rand</td>
<td>PepsiCo-Mondelez</td>
</tr>
<tr>
<td>Greg Taxin</td>
<td>NutriSystem, Value Vision</td>
<td>NutriSystem, XenoPort</td>
<td>XenoPort</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chris Hohn</td>
<td>Coal India, EADS</td>
<td>Deutsche Borse</td>
<td>Coal India, EADS</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Greg Taxin’s (Clinton Group) propositions to Xenoport were to switch capital allocation from Horizant to the multiple sclerosis and psoriasis compound (XP23829). The compound has better side effects than Biogen’s equivalent (Tecfidera) and could become a blockbuster, increasing Xenoport’s cash-flows, hence, resulting in VC.

Carl Icahn’s suggestion to Genzyme to focus on the development of therapies such as Cerezyme to treat Gaucher’s disease can result in great VC by substantially increasing cash-flows. Cerezyme costs $3,000 to produce and sells for $300,000. Given the fact that all type patients (non-neuropathic, acute infantile neuropathic and chronic neuropathic form) need to consume it in order to survive, Cerezyme has the potential to become a blockbuster drug (>$1 billion revenue/annum). Genzyme’s monopoly on this niche market would guarantee a surge in cash flows and enormous VC (Bertoni, 2011).
Carl Icahn has caused great VD in the past in Trans World Airlines (TWA), but not to himself. After TWA filed for bankruptcy (1995) he signed a contract with the airline, according to which he would be entitled to purchase discounted tickets (up to 45% under published fares) in return for a loan made to the firm. This resulted in enormous VD, as cash-flows were significantly reduced (Grover, 2013).

Appendix 2

The following, is a simplified version of the Equity Valuation model as found in Esty’s paper Note on Value Drivers (1997). It is used to relate ROE performance to equity value.

The model is explained below by assuming constant cash flows to equity:

\[ E_{MV} = \frac{ECF_1}{1 + K_e} + \frac{ECF_1}{(1 + K_e)^2} + \cdots \]

Where:

\( E_{MV} = \textit{market value of equity}; ECF_1 = \textit{cash flows to equity}; K_e = \textit{cost of equity}. \)

Solving the perpetuity yields:

\[ E_{MV} = \frac{ECF_1}{1 + K_e} \]

Assuming that ROE times the book value of equity equals to the equity cash-flows, the perpetuity can be written as:

\[ E_{MV} = \frac{ROE \times E_{BV}}{K_e} \]

Since \( ROE = \frac{\text{net income}}{E_{BV}} \), dividing both sides by \( E_{BV} \), yields:

\[ \frac{\text{Market value of equity}}{\text{Book value}} = \frac{ROE}{K_e} \rightarrow \text{Market value} = \frac{ROE \times \text{Book value}}{K_e} \]

Where: \( E_{BV} = \text{book value of equity}. \)

The main advantage of the equity valuation model is that it allows for the linkage between the ROE metric and the market value of the firm; it facilitates the understanding of the connection between improved profitability ratios and their impact upon shareholder value.

In addition to the equity valuation model, a simplistic DCF valuation model will help one understand how changes in capital structures and WACC can create shareholder value, assuming the first CF grows at a constant rate:

\[ DCF = \frac{CF_1}{1 + \textit{WACC}} + \frac{CF_1 \times (1 + g)}{(1 + \textit{WACC})^2} + \frac{CF_1 \times (1 + g)^2}{(1 + \textit{WACC})^3} + \cdots \]

Solving for the perpetuity yields:

\[ DCF = \frac{CF_1}{\textit{WACC} - g} \]
Where \( g = \text{constant growth} \).

The simplistic DCF model illustrated above provides two useful facts:

- Increasing CFs and \( g \) increases DCF;
- Reducing WACC increases DCF.

The main body often refers to how improving cash flow creates shareholder value or how WACC impacts upon the valuation of the firm.

With regards to the firms’ growth, this is higher during the CAP. Expanding CAP, therefore, implies higher growth for a longer time span, creating value for shareholders within a two-stage DCF framework.

References


