# Monmouth, Inc. Case Study Report

**by**

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**Monmouth × Robertson: Investment Assessment and Recommendation**

## Executive Summary

Monmouth Inc. is looking to reduce the earnings swings that come from its concentration in the oil and gas industry. To achieve this, the company is considering acquiring Robertson Tool Company, a hand-tool manufacturer known for its steady financial performance, established brands, and wide distribution reach. The proposed acquisition would bring more predictable revenue streams and align with Monmouth's goal of long-term earnings stability.

Using data provided in the case and a Discounted Cash Flow (DCF) approach, we evaluated Robertson under two performance scenarios. The analysis produces an equity value range between approximately $39.78 and $81.46 per share, depending on how effectively Monmouth captures projected cost savings. Given shareholder expectations and intrinsic value, the recommended offer is at $53 per share, for 584,000 shares, paid in Monmouth stock. This price meets stakeholder requirements while preserving upside potential for Monmouth's investors.

## Company Background and Strategic Rationale

Monmouth's operations have historically been tied to energy and heavy equipment markets, leaving its earnings vulnerable to industry cycles. Acquiring a business in a more stable, small-ticket product category would help balance those fluctuations. Robertson Tool Company offers that opportunity.

Robertson holds a leading position in the hand-tool industry, supported by recognizable product lines and a global sales network that reaches customers in over a hundred countries. Adding Robertson's distribution base would immediately expand Monmouth's market access and reduce its dependence on the oil and gas sector.

The mix of customers and products between the two firms also complements each other. Robertson's sales lean toward industrial clients, while Monmouth's current hand-tool sales are primarily consumer-focused. Together, the companies could achieve a more balanced customer portfolio and cross-sell existing products across both market segments.

The transaction also presents tangible cost advantages. By consolidating production, integrating sales teams, and improving manufacturing processes, Monmouth expects to reduce cost of goods sold from 69% to 65% of sales and selling and administrative expenses from 22% to 19% *(case Exhibit 4)*. These assumptions form the basis of the optimistic scenario in the valuation section.

**Key Assumptions and Methodology**

All assumptions are derived directly from the case exhibits, FAQ, or calculation sheets.

- Corporate tax rate: 40% *(case Exhibit 4, FAQ)*
- Risk-free rate: 4.10% *(case Exhibit 7)*
- Market risk premium: 5.5% *(case Exhibit 7)*
- Credit rating shift: BBB in 2003–2006 → A after 2007 *(Q1 Calculations)*
- CAPM: Derived betas from comparable companies *(case Exhibit 6)*

Valuation was completed using CAPM and DCF models, covering a forecast period of 2003–2006 and a stable growth period beginning in 2007. Free cash flow (FCF) was calculated using: EBIAT + Depreciation – Capital Expenditures – Change in Net Working Capital. All calculations and data are referenced in the following text and cited at the end of the report *(pp. 7–10)*.

**Cost of Capital Analysis** (*Q1 Calculations)*

The cost of capital was estimated separately for the explicit forecast period and the stable growth phase to reflect changes in business risk and leverage after the acquisition.

*Explicit Period (2003–2006):*

- Cost of equity (rE): 9.38%, calculated through CAPM with a beta of 0.96, risk-free rate of 4.1%, and market risk premium of 5.5%.
- Cost of debt (rD): 6.07%, based on yields for BBB-rated companies from Exhibit 7.
- WACC: 7.95%.

*Stable Period (2007 and beyond):*

- Cost of equity (rE): 8.78%, reflecting a lower beta of 0.85 due to stronger credit quality.
- Cost of debt (rD): 5.07%, consistent with A-rated firms.
- WACC: 7.23%.

The decrease in WACC reflects a gradual reduction in risk and borrowing costs as Monmouth stabilizes operations and improves its financial position post-acquisition.

**Valuation Analysis** (*Q2 Calculations, Q3 Calculations)*

*Optimistic Scenario:*

Projected values of free cash flows were: $3.9 million in 2002, $0.82 million in 2003, $2.36 million in 2004, $3.42 million in 2005, $4.02 million in 2006, and $4.92 million in 2007 forward.

Discounting the cash flows at the respective WACCs results in an estimated equity value of $47.58 million at $81.46 per share. This represents the upper range of intrinsic value, assuming full delivery of the cost reductions and no terminal growth beyond 2007.

*Pessimistic Scenario:*

Projected values of free cash flows were: $3.9 million in 2002, $0.82 million in 2003, $1.60 million in 2004, $1.83 million in 2005, $1.97 million in 2006, and $2.87 million in 2007 forward.

If cost savings are achieved only in 2003 and margins revert to historical levels afterward, the resulting valuation falls to $23.23 million, or $39.78 per share. This represents the lower bound of value and highlights the risk if projected efficiencies do not materialize.

**Price for Control** *(Q4 Data)*

With a value range from roughly $40 to $81 per share, a reasonable offer should exceed the $50 price threshold that key shareholders, including the Robertson family, have publicly indicated as their minimum acceptable level. A price of approximately $53 per share is both competitive and financially sound. The competing NDP offer of $53.10, although close in value, is composed of volatile, non-dividend-paying stock that lacks liquidity, making Monmouth's proposal the stronger option for investors.

The proposed price falls within the intrinsic value range, provides a fair return to Robertson's shareholders, and leaves room for Monmouth to capture value from operational improvements. Offering the consideration in Monmouth stock also aligns both parties with future performance and avoids adding excessive leverage to Monmouth's balance sheet.

**Strategic Fit and Stakeholder Considerations** *(Q5 Data, Q6 Data)*

Strategically, Robertson strengthens Monmouth's market position by adding a durable, non-cyclical product line that offsets fluctuations in energy-related revenues. The company's established international distribution, recognized product lines, and manufacturing efficiency complement Monmouth's existing operations. The combined company would serve a wider range of customers across both industrial and consumer markets, reducing volatility in overall sales.

From a stakeholder perspective, the Robertson family and other major investors have expressed a preference for long-term stability and an acquirer that values the company's heritage. A stock-based offer provides that alignment, enabling continued participation in the company's growth while addressing liquidity and valuation concerns. This structure also addresses the concerns of Simmons and other

shareholders by offering a more liquid and stable alternative to NDP's unattractive stock. This approach increases the probability of a friendly agreement and minimizes the risk of competing bids.

**Risks and Recommendations**

The most significant risk is that anticipated cost savings and integration benefits may take longer to achieve or prove smaller than projected. In that event, value could trend toward the lower end of the estimated range. To mitigate this, Monmouth should maintain disciplined post-acquisition execution, ensure transparent coordination with Robertson's leadership, and phase operational consolidation carefully to protect product quality and customer relationships.

Based on this analysis, Monmouth should:

- Move forward with a friendly acquisition of Robertson Tool Company.
- Offer approximately $53 per share in Monmouth stock.
- Emphasize long-term stability, operational oversight, and partnership with Robertson's existing management team.

This approach fulfills Monmouth's goal of creating predictable, sustainable growth while maintaining shareholder discipline.

**Conclusion**

Robertson Tool Company represents a sound strategic and financial opportunity for Monmouth Inc. The acquisition would diversify revenues, smooth earnings, and offer measurable cost-efficiency potential. Using WACCs of 7.95% and 7.23% for the forecast and stable periods, respectively, our DCF analysis supports a value range of $39.78 to $81.46 per share. A stock-based offer at $53 per share meets stakeholder expectations and leaves upside potential for Monmouth's shareholders. The transaction supports Monmouth's broader objective of building long-term stability and shareholder value.

## *Q1 Calulations:*

- Told to use tax rate of 40%
- To find E, we do 1 - D = 66.6% (see below)
- To find rE, we use CAPM. Our rf is 4.1% (exhibit 7), our beta is 0.96 (see below), and our market risk premium is 5.5% (FAQ doc) → 4.1 + 0.96(5.5) = **9.38%**
- To find the beta that we use for this, we used the equity betas of the comparable companies

→→ First we computed the D/E ratios (using debt % capital (D/V) ratios given to us for each company, exhibit 6)

Actuant →→ $\frac{0.29}{1-0.29} = .408$

Briggs & Stratton→→ $\frac{0.37}{1-0.37} = 0.587$

Idex Corp→→ $\frac{0.20}{1-0.20} = 0.25$

Lincoln Electric→→ $\frac{0.17}{1-0.17} = 0.205$

Snap-On →→ $\frac{0.19}{1-0.19} = 0.235$

Stanley →→ $\frac{0.24}{1-0.24} = 0.316$

→→ Then we unlevered each equity beta to get the asset or unlevered betas

Actuant →→ $\frac{1}{[1+(0.6*0.408)]} = 0.803$

Briggs & Stratton →→ $\frac{1}{[1+(0.6*0.587)]} = 0.740$

Idex Corp →→ $\frac{1}{[1+(0.6*0.25)]} = 0.870$

Lincoln Electric →→ $\frac{0.75}{[1+(0.6*0.205)]} = 0.668$

Snap-On →→ $\frac{1.05}{[1+(0.6*0.235)]} = 0.920$

Stanley →→ $\frac{0.95}{[1+(0.6*0.316)]} = 0.799$

→→ Then we found the avg unlevered beta = $\frac{0.803+0.740+0.870+0.668+0.920+0.799}{6} = 0.8$

→→ Then we relevered to get the equity beta → 0.8 * [1 + ((1-0.4) * D/E)]

to find average D/E we did $\frac{0.408+0.587+0.25+0.205+0.235+0.316}{6} = 0.334$ .... this is an industry average

→→ 0.8 * [1 + ((1-0.4) * 0.334)] = **0.96 is the equity beta**

- For rD, we use a BBB bond rating (average of all 6 companies from exhibit 6) of **6.07%** (exhibit 7)
- Now, we can calculate the WACC

→→ avg D/E = 0.334 so average D/V = $\frac{0.334}{1+0.334} = 0.25$, so **D/V = 0.25** and **E/V = 1 - D = 0.75**

→→ 0.75 * (.0938) + 0.25 * (.0607) * (1- 0.4) = 0.07945 or **7.95%**

D/V for Robertson = $\frac{0.37}{1-0.37} =$ **0.587**

This wacc will change in the stable growth period

Robertson's bond rating is around that of AA, so this will increase Monmouth's bond rating of BBB to something like A

If Monmouth acquires Robertson, its risk profile changes:

--**Diversification:** Robertson becomes part of Monmouth's diversified hand tool division, smoothing revenues.

--**Stronger balance sheet:** Monmouth's larger equity base supports more debt capacity at safer levels.

**Steadier growth/expansion into more stable market:** Once operational efficiencies and synergies are realized, cash flows stabilize.

--**Reduced Sensitivity:** The company is less vulnerable to economic downturns because it is a market leader with established products (like Robertson's clamps and shears).

This reduction reflects the anticipated stabilization of Robertson's operations after 2006, with improved efficiency (e.g., CoGS dropping to 65% and SG&A to 19%) and reduced market volatility due to integration with Monmouth. The lower beta in the stable period accounts for this decreased risk, aligning with the expected long-term benefits of the acquisition.

We expect beta to decrease in the stable growth period because the company will be part of a larger, more diversified, and better-capitalized organization, resulting in more stable cash flows and a lower risk profile.

So all of this will decrease the beta to say 0.85 for example...then take average D/E of all 6 + Robertson .... $\frac{0.408+0.587+0.25+0.205+0.235+0.316+0.587}{7} = 0.36971$....then find D/V = $\frac{0.37}{1+0.37} = 0.27$

Now rE = 4.1 + 0.85(5.5) = 8.78%

Since Monmouth's credit rating is improved and the bond rating changes to A, the cost of debt is now 5.07%

new WACC is 0.73 * (.0878) + 0.27 * (.0507) * (1 - 0.4) = 0.0723 or **7.23%, so slightly different from forecast period**

***Q2 Calculations:***

| 2) | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 to infinity |
| | Sales | 55.3 | 58.6 | 62.1 | 65.9 | 69.8 | 69.8 |
| | COGS | 37.9 | 39.8 | 41.6 | 43.5 | 45.4 | 45.4 |
| | Gross Profit | 17.4 | 18.8 | 20.5 | 22.4 | 24.4 | 24.4 |
| | Op Ex | 12.3 | 12.3 | 12.4 | 12.5 | 13.3 | 13.3 |
| | Depr | 2.1 | 2.3 | 2.5 | 2.7 | 2.9 | 2.9 |
| | EBIT | 3 | 4.2 | 5.6 | 7.2 | 8.2 | 8.2 |
| | Tax at 40% | 1.2 | 1.68 | 2.24 | 2.88 | 3.28 | 3.28 |
| | Unlevered NI | 1.8 | 2.52 | 3.36 | 4.32 | 4.92 | 4.92 |
| | Depr | 2.1 | 2.3 | 2.5 | 2.7 | 2.9 | 2.9 |
| | Cap Ex | | -4 | -3.5 | -3.6 | -3.8 | -2.9 |
| | Increases in NWC | | | | | | |
| | **FCF** | **3.9** | **0.82** | **2.36** | **3.42** | **4.02** | **4.92** |
| | PV(FCF) | | 0.76 | 2.03 | 2.72 | 2.96 | |
| | Total PV of FCF | 8.46 | | | | | |
| | TV | 68.05 | | | | | |
| | PV(TV) | 50.11 | | | | | |
| | EV | 58.58 | | | | | |
| | Equity Value (in mil) | **47.58** | **47,575,147** | | | | |
| | $ per share | **81.46** | | | | | |

***Q3 Calculations:***

| 3) | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 to infinity |
| | Sales | 55.3 | 58.6 | 62.1 | 65.9 | 69.8 | 69.8 |
| | COGS | 37.9 | 39.8 | 42.23 | 44.81 | 47.46 | 47.46 |
| | Gross Profit | 17.4 | 18.8 | 19.87 | 21.09 | 22.34 | 22.34 |
| | Op Ex | 12.3 | 12.3 | 13.04 | 13.84 | 14.66 | 14.66 |
| | Depr | 2.1 | 2.3 | 2.5 | 2.7 | 2.9 | 2.9 |
| | EBIT | 3 | 4.2 | 4.33 | 4.55 | 4.78 | 4.78 |
| | Tax at 40% | 1.2 | 1.68 | 1.73 | 1.82 | 1.91 | 1.91 |
| | Unlevered NI | 1.8 | 2.52 | 2.60 | 2.73 | 2.87 | 2.87 |
| | Depr | 2.1 | 2.3 | 2.5 | 2.7 | 2.9 | 2.9 |
| | Cap Ex | | -4 | -3.5 | -3.6 | -3.8 | -2.9 |
| | Increases in NWC | | | | | | |
| | **FCF** | **3.9** | **0.82** | **1.60** | **1.83** | **1.97** | **2.87** |
| | PV(FCF) | | 0.76 | 1.37 | 1.45 | 1.45 | |
| | Total PV of FCF | 5.03 | | | | | |
| | TV | 39.65 | | | | | |
| | PV(TV) | 29.20 | | | | | |
| | EV | 34.23 | | | | | |
| | Equity Value (in mil) | **23.23** | **23,233,051** | | | | |
| | $ per share | **39.78** | | | | | |

***Q4 Data:***

The pessimistic DCF valuation sets a floor price of $39.78 per share. The current market price is $44 and Simmons has a tender at $42. Simmons privately agreed to support a deal of at least $50 per share.

The NDP offer is $53.10 per share, but is volatile and lacks a dividend.

An offer of $53 should get the deal done...this translates to a total equity value of $30.95 million.

Competitive with NDP offer, Robertson is happy, and above $50 required by Simmons

It also is a significant premium over the most recent share price of $44 ($9 premium per share) This price is still below our pessimistic valuation of $39.78 per share.

***Q5 Data:***

The strategic fit is great and is the primary driving factor behind the acquisition. Robertson has a 50% market share in clamps and vises in a stable industry (hand tools). They have small-ticket items in a broad market, which reduces Monmouth earnings volatility.

Monmouth also believes it can cut Robertson's COGS from 69% to 65% and their SG&A from 22% to 19% by merging sales forces and improving manurfacturing efficiency.

Robertson's sales are 75% industrial and 25% consumer, and Monmouth's are the exact opposite. Thefrefore, sales increases are to be expected from Robertson
pulling more of Monmouth's products into the industrial markets and vice versa for the consumer market.

Robertson's strong European distrubution system would be another huge asset that Monmouth would gain access to.

***Q6 Data:***

An offer price of $53 per share is necessary to gain the support of the Robertson family, Simmons, and the majority of stockholders.

Interests, Concerns, and Alternatives of each group

→→ **Robertson Family/Management:**

**Interests:** Job security, operational independence, and legacy.

**Concerns:** Hostile takeover (especially from Simmons) leading to aggressive cost-cutting and loss of control.

**Alternatives:** Merge with NDP, which has promised them operational independence.

→→ **Simmons Company:**

**Interests:** Maximize the value and liquidity of its 177,000-share investment.

**Concerns:** Being stuck with NDP's mediocre stock, which is volatile, pays no dividend, and is hard to sell.

**Alternatives:** Reluctantly accept the NDP stock swap or hold out for a better offer.

→→ **Majority of Shareholders:**

**Interests:** Maximize their investment return, preferably in cash or a stable, liquid security.

**Concerns:** The volatility of NDP stock and Robertson's history of poor performance.

**Alternatives:** Accept the NDP offer or hope for a bidding war.

Yes, Monmouth has a competitive advantage over NDP. They synergize better with Robertson and they can pay in cash or offer its more attractive sotck. Their stock is also much more liquid and they offer much higher forecasted earnings.

It is unlikley NDP will increase their offer, because their stock is already volatile, with no dividend and low volume. Increasing the offer would only strain NDP's finances.