Recommendation: HOLD **Estimated Fair Value: $67 – $86**

1. Reasons for the Recommendation

I recommend holding Deere & Company for several reasons.

First, Deere has a strong financial condition. The company had another record year in 2012. Compared with 2011, Deere's net sales had increased by 13.58%. And the net income was 3.07 billion compare with 2.8 billion in 2011according to their annual report.[1] This is Deere's seventh income record ever since 2003.

Second, Deere is the leading company in the farm machinery and equipment industry with a market share of 44.2% and most of Deere's revenue is from this industry. During the past five years, this industry had a good performance In general. The total market capitalization of the farm machinery and equipment industry is $342 billion. And I think the profitability of the farm machinery and equipment industry is expected to grow continuous during the next five years. Deere's brand name is also very competitive in North America.

Third, Deere's business strategy is to expand its business globally. Deere is planning to set up three new factories in China, two in Brazil, one in India and one in Russia. Although the U.S. market can't support Deere's forecast of 4% increase in agriculture & turf segment and 8% increase in construction & forest segment. Deere's expansion on the global market is the reason why Deere can always outperform the industry.

However, both the U.S. Farming equipment industry and the Construction equipment company, which count for over two thirds of Deere's total revenue, are at a mature state, the industry growth for farming equipment is steady and projected to increase. It means there won't a lot potential customers for expanding the business. According to the industry report from the IBIS world, the U.S. Farming equipment industry expects an increase of 2.9% in 2014 and 3.3% on average to 2018. [2]Plus, the Construction equipment industry expects an increase of 8.1% in 2014 and 4.4% on average to 2018.[3]

Last, innovation is very important in the manufacturing industry. Deere did a very good job of improving its products. In 2012, Deere spent $1433.6 million on researching and development, which is 4% of its total revenues.[4] The growth rate of research & development expenses is 16% annually for the past two years. Deere focuses on improving the quality of their product and also being energy-saving, which makes Deere more competitive among its competitors.

Multiple valuations

The multiple valuations show that Deere is possible to be undervalued. Deere is trading at a P/E ratio of 11.22 and beta of 1.35, both under the average. The Enterprise Value/EBITDA of Deere is 10.59, which is slightly over average. The return on capital of Deere is 6.53%, under the average of 10.92. In addition,

[1] Deere & Company Annual Report 2012
[2] Kevin Boyland, IBIS World Industry Report 33311, Tractors & Agricultural Machinery Manufacturing in the US, January 2013
[3] Kevin Boyland, IBIS World Industry Report 33312, Construction Machinery Manufacturing in the US, February 2013
[4] Deere & Company Annual Report 2012

the dollar valuation using S&P index is $93.6, also indicating that Deere is possibly undervalued. So, overall I believe the stock price is undervalued.

2. Company Analysis

John Deere operates in three major segments: the agriculture and turf segment, the construction and forestry segment as well as the financial segment. 75.90% of Deere's total revenue came from the agriculture and turf segment, 17.85% came from the construction and forestry segment and 6.25% was from the financial services segment.

Strengths

The agriculture and turf segment is expanding its business worldwide, focusing on developing countries. Deere will adjust its production according to these countries' demand. For example, developing countries demand smaller equipment, so Deere's will increase its supply for small tractors. Also, to meet this segment's needs, John Deere also offers solutions for harvesting. This makes Deere more competitive among these markets.

The construction and forestry segment seek for lager market share worldwide by setting up joint ventures or cooperative relationships with local companies, authorizing them to manufacture construction and forestry equipment under the Deere & Company's brand name.

Weaknesses

Deere manufactures and sells its product and service worldwide. This involves foreign currency transactions. John Deere uses the dollar in the company's financial statement, and the floatation of the dollar has a huge impact of the company.

Deere's operating profit has been partially offset by its highly increased research and development expenses as well as selling, administrative and general expenses. In addition, the production and raw material costs were also increased during the year 2012.

Opportunities

Agriculture machinery has a high potential in the long run. The rapid growth of the world's population will cause an increase demand of food as well as meat, which leads to a further increase require of food to feed the animals. This will boom the farm machinery and equipment industry largely.

Thanks to the depreciation of the US dollar, the US products are more competitive in the international market. Meanwhile, the rising of some developing regions such as China and South America also increase the demand of farming machines.

Threats

The farm machinery and equipment industry's performance may be directly or indirectly affected by the climate. For example, bad weather may cause a decrease in food production. Farmers will have lower income and they will spend less on purchasing new equipment. Therefore, the demand of the agricultural equipment may be reduced.

In addition, 62.3% of the cost of the Farm machinery and equipment industry is purchasing. [5]And a large part of farm machines are made of steel. When steel price goes up, the cost of raw material goes up. So the manufacture costs of farm equipment are highly related to the price of steel**.** And the steel price is forecasted to have a small increase in 2013.

3. Industry Analysis

Farm machinery and equipment industry

75.90% of Deere's total revenues come from the agriculture and turf segment in farm machinery and equipment industry.

In general, this industry had a good performance during the past five years. Competition level of this industry is low. More than half of revenues come from this industry's largest companies. Major players are Deere & Company with a market share of 44.2% and CNH Global NV with a smaller market share of 11.6%. [6]They are the price maker. Price-based competition won't work. Companies compete on product, service and brand name.

The farm machinery and equipment industry is at a mature stage and the barriers to enter the industry is low. There is no strict government regulation. The only thing prevent firms entering this industry is the large financial requirement.

The farm machinery and equipment industry is highly globalized and it's expected to increasing.

Construction machinery industry

17.85% of Deere's total revenues come from the construction and forest segment in construction machinery industry.

Competition level of this industry is high. Major players are Caterpillar Inc. with a market share of 34.7% and Deere & Company with a smaller market share of 8.1%.[7] Companies compete on products, customer services and price. Innovation is very import to have advantage over other competitors in this industry.

The construction machinery industry is at a mature stage and the barriers to enter the industry are on average level. New firms don't have enough research and development expense or strong brands to compete with large firms.

The construction machinery industry is highly globalized. The export is expected to be $28.2 billion in 2013, over 50% of the total revenue. So, the global economic has a huge impact on this industry. The strong demand for construction machines worldwide promises a bright future for the construction machinery industry.

[5] Kevin Boyland, IBIS World Industry Report 33311, Tractors & Agricultural Machinery Manufacturing in the US, January 2013
[6] Kevin Boyland, IBIS World Industry Report 33311, Tractors & Agricultural Machinery Manufacturing in the US, January 2013
[7] Kevin Boyland, IBIS World Industry Report 33312, Construction Machinery Manufacturing in the US, February 2013

Auto Leasing, Loans & Sales financing industry

6.25% of Deere's total revenues come from the financial services segment in Auto leasing, loans and sales financing industry.

Competition level of this industry is high. One reason is that the industry is highly decentralized. Major players include Ford Motor Credit Company LLC with a market share of 8.6% and Ally Financial Inc. with a market share of 5.3%. [8]In addition, companies in this industry not only face competition from each other, but from commercial bank and other financial intermediaries.

The auto leasing, loans & sales financing industry is at a mature stage, the barriers to enter the industry are on average and the trend is steady. Both the growth rate and the introduction of new product have slowed down. Also, new firms trying to enter this industry face heavy regulation and policy.

It's believed that the auto finance industry will reach its bottom in 2013, and the performance for the next five years will be better due to more accessible credit market and decreasing unemployment.

[8] Kevin Boyland, IBIS World Industry Report, Auto Leasing, Loans & Sales financing industry, January 2013

Appendix A: Inputs into the Discounted Cash Flow Valuation

Risk-free rate	1.92%
Default spread	1.40%
Cost of Debt	3.32%
Bottom-up beta	1.98
Yahoo beta	1.35
Weighted average market risk premium	6.841%
Cost of equity(bottom-up)	15.47%
Cost of equity(Yahoo)	11.16%
Weight of debt	46.85%
Weight of equity	53.15%
WACC(bottom-up)	9.24%
WACC(Yahoo)	11.16%
Growth rate	7.44%

**Sources: 10-K, Yahoo! Finance*

Appendix B: Inputs into valuation using multiples
Comparable Firms

Agriculture and Turf	EV/EBITDA
CNH Global NV	8.55
AGCO Corporation	6.04
Lindsay Corporation	10.52
Alamo Group Inc.	7.22
Valmont Industries, Inc.	9.49
Titan Machinery, Inc.	13.34
Manitex International, Inc.	10.80
The Manitowoc Company, Inc.	10.80
Consrtuction and Forest	EV/EBITDA
Caterpillar Inc.	8.31
Joy Global, Inc.	5.76
CNH Global NV	8.55
Terex Corp.	9.35
Alamo Group Inc.	7.22
Manitex International, Inc.	10.80
The Manitowoc Company, Inc.	10.80
Financial Services	Trailing P/E
Credit Acceptance Corp.	13.52
PACCAR Inc.	15.17
Nicholas Financial Inc.	7.57
Consumer Portfolio Services, Inc.	3.20
MicroFinancial Inc.	11.27
Marlin Business Services Corp.	20.88

**Source: 10-K, Yahoo! Finance*

Historical Multiples

Price/Earnings	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	TTM
DE	24.6	13.4	11.6	15.4	23.3	8.1	26.2	19.1	11.7	11.3	11.8
S&P 500	21.1	19.2	17.2	16.8	16.5	10.9	18.6	15.5	13.7	15	15.6
ratio to S&P	1.17	0.70	0.67	0.92	1.41	0.74	1.41	1.23	0.85	0.75	0.76

**Source: Morningstar, Inc.*