



Harvesting Value: John Deere & Precision Agriculture

April 2021

When you think of Deere & Company, what comes to mind? For most people, it's the green farm equipment scattered across the U.S. This brand recognition is one of the many competitive advantages we believe Deere possesses, but perhaps the most underappreciated of these advantages is its leadership position in the high-tech precision agriculture (ag) space, which fuses machines and technology to help farmers increase yields and profitability in the most efficient way possible.

We previously held Deere for a few years, during which time the stock reached our estimate of intrinsic value and we exited the position. More recently, we revisited the business as we began to more fully appreciate the growth potential of its precision ag technology. Our decision to reevaluate Deere in 2020 was initially driven by our desire to find quality holdings and gain exposure to various end markets that stood to benefit in a reflationary environment. Deere was an easy choice given our knowledge of the company and the high-quality nature of the business, but we recognized that our original thesis undervalued technological changes taking place in the industry.

While there are several aspects of Deere's business that make it a high-quality company, farm equipment is one of its strongest advantages given the changes on the horizon. Over the years, Deere has built an iconic brand with an extremely loyal customer base, built on first-class products and an unmatched, difficult to replicate dealer network that provides much needed support to customers. Deere's premium product and service capabilities come with pricing power, which is bolstered by brand recognition, as used Deere equipment typically sells at higher prices than competitors, making it easier for customers to upgrade to the latest offerings. Farmers pay for productivity and reliability, which is part of Deere's value proposition.



Brian Bath, CFA
Research Analyst

On the corporate side, Deere's management team understands the importance of product innovation and operational efficiency. Through the years, we have seen continuous cost improvements and a strategic focus on areas of the business that will generate the highest returns for shareholders. This structure and focus allow Deere to generate attractive levels of free cash flow, and management has shown a commitment to returning cash to shareholders via share buybacks and dividends. The company bases its decisions on the shareholder value added performance metric, ensuring management focuses on the long term and not the easy decision for the next quarter.

Everything we have mentioned to this point—premium products and customer service, focus on product innovation, and strategic investment for the long term—drove Deere to where they are now, the leader in precision ag. Through organic and inorganic investments, Deere has built a platform that will transform the business into more than just an equipment manufacturer in the coming years. Some current, or soon to be available, features will allow farmers to plant seeds at optimal soil depth and properly spaced, reducing total seed cost. These technologies can also identify weeds versus plants, significantly reducing herbicide and fertilizer waste through targeted application, increasing crop yield per acre and reducing input costs. All of these technologies can be managed in a centralized system, meaning farmers can monitor progress and gather useful data to analyze and use for process improvements. With

these systems in place, Deere estimates its precision ag offerings add roughly \$40 of economic value per acre to its customers, while also greatly reducing greenhouse gas emissions through increased efficiency.

Deere may not be the only machinery company developing precision ag systems, but it does have the most robust in-house offerings compared to competitors. By committing to in-house development, Deere has maintained control over hardware and software systems for its machinery. The company has also placed an emphasis on customer support, meaning farmers can go to the dealer they trust for everything from mechanical to software issues. This structure increases Deere's service revenue potential, as the company provides technical support as well as assistance in data analytics to help customers optimize their operations.

For Deere, the precision ag business offers a significant margin opportunity as penetration of these technologies increase. The opportunity is two-fold—upfront pricing power and margin benefit from increased software-based sales and the parts and service revenue over the life of the machine. A Deere machine may go through three to five owners in its useful life, and in the past Deere was able to capitalize on the service revenue from the first owner but saw steep service revenue declines with each new buyer as owners went to third parties for repairs. With increasingly complex software, machines become more difficult for third parties to service, so second and third generation owners will need to look to Deere for parts and service. This allows Deere to leverage its precision ag offerings into long-term recurring services revenue at higher margins as each equipment owner will want to benefit from increased efficiencies from the product.

Having previously held Deere in our portfolios, we understood the value of Deere's iconic brand, premium products and unmatched dealer network. Today, we more fully appreciate Deere's industry-leading position and market share in the precision ag space. Over the coming years, we believe Deere will continue to build on this position with innovative technologies and service levels that will keep customers loyal for years to come.

As of March 31, 2021, Diamond Hill owned shares of Deere & Co.

The views expressed are those of the research analyst as of April 2021, are subject to change, and may differ from the views of other research analysts, portfolio managers or the firm as a whole. These opinions are not intended to be a forecast of future events, a guarantee of future results, or investment advice.