

VALUE FOCUS

Agribusiness

Segment Focus: Agricultural Technology
Fourth Quarter 2018

Segment Focus: AgTech

Segment Breakdown

- Precision Agriculture
- The Agriculture Marketplace
- Imagery
- Sensor and Smart Farm Equipment
- Crop Protection/ Input Management

VC Funding for AgTech

Commodity Prices

Publicly Traded Agribusiness Companies

Indices & Multiples

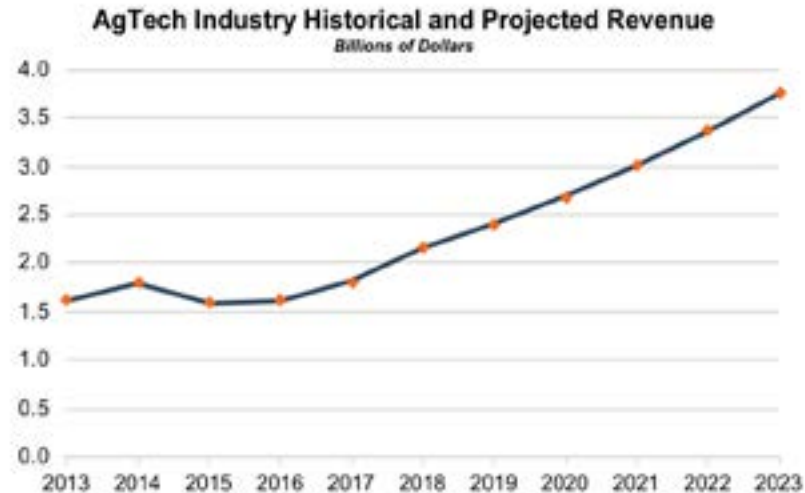
About Mercer Capital



Segment Focus

Agricultural Technology

As the world's population continues to grow, farmers and vertically integrated large food corporations are investing in ways to boost the efficiency and yield of existing farmlands. From GPS-aided precision equipment to databases that record crop inputs and conditions, agricultural technology (in particular, precision agriculture, imagery, marketplace tech, sensors, and crop protection) is leading the way in innovation for one of our greatest and most important resources. Necessity and opportunity have stimulated significant investment in the industry (\$1.9 billion in 2018), driving revenue growth at an annualized rate of 5.9% from 2013-2018 with growth of 19.3% in 2018 alone. Despite a high level of volatility in the past five years, revenue is expected to continue to grow at annualized rate of 11.7% from 2019-2023 reaching a high of \$3.8 billion dollars in 2023.



Source: IBISWorld

The AgTech industry as a whole has responded to recent trends in the agribusiness sector by consolidating talent and taking advantage of lower input pricing. Large firms like Deere and Co. and Trimble continue to purchase smaller, specialized companies so that they can incorporate cutting edge technology into new lines of equipment. Consolidation of the industry has helped drive profit margins higher and link large wells of research and development funding with highly specialized product developers. Also, inputs like semiconductors, plastic housings, and software are becoming cheaper as computing capacity is becoming cheaper. These inputs are a large portion of the expenses for AgTech companies, and as expenses are cut, the firms become more profitable.

Segment Breakdown

Precision Agriculture

The precision agriculture segment is made up of companies that engage in the building of software suites, data management and analytics tools for improved farm management, including the measurement of crop inputs, soil, moisture, weather, and inventory. In the last few years, precision ag companies have been generating more revenue and cutting costs due to industry consolidation and falling input prices. Downstream demand from farmers is expected to fall in the last quarter of 2018, which could be an issue for the entire Agribusiness industry, but the continued interest of original equipment manufacturers (OEMs) in acquiring these companies should prop up the subsector for the near future. Another developing force to monitor is the rising wages of developers. As the technology becomes more complex, developers will be able to demand higher wages for their work, cutting into profits.

The Agriculture Marketplace

The ag marketplace field provides an internet presence for buyers, sellers, and consumers to connect in a new and interesting way. Some ag marketplace services seek to cut out transportation companies by connecting buyers and sellers of agricultural products. Others seek to track these products as they move along the supply chain, giving consumers access to the knowledge of where their food is coming from. This subsector has received less investment than the imagery or crop protection/input management subsectors; however, significant opportunity exists in scalable, underinvested ag marketplace technologies.

Imagery

The production of agricultural imaging drones makes up most of this subsector's revenue, as more and more farmers use drones to get a bird's eye view of their properties. In fact, according to the Association for Unmanned Aerial Vehicle Systems, the agriculture sector could account for up to 80% of all drone use. Government rulings in imagery technology could seriously affect future values of imagery firms, as recent FAA rulings have made the regulatory status of commercial drones uncertain. However, the U.S. Court of Appeals has ruled that a pilot's license is no longer required to operate a commercial drone, further opening the multi-billion-dollar agribusiness industry to drone use and giving agricultural imagery companies a positive outlook for future growth.

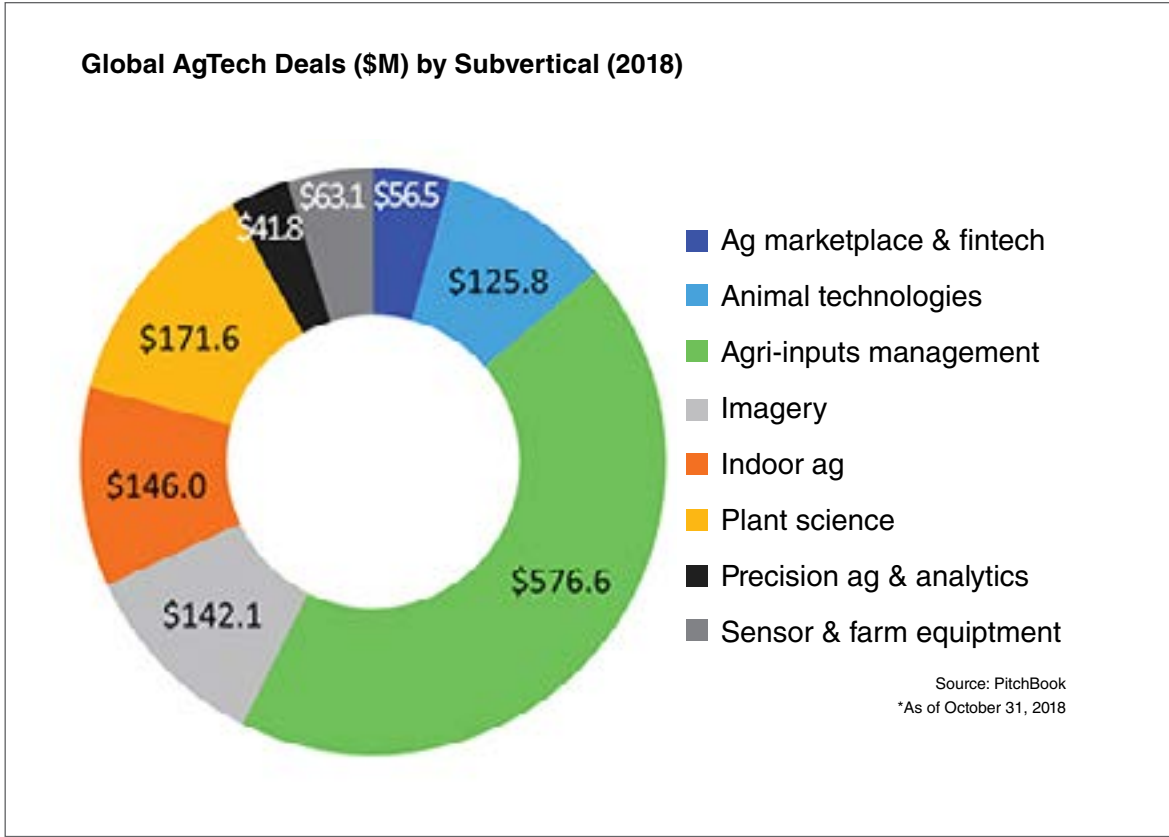
Sensor and Smart Farm Equipment

Sensor technology can be any hardware or software system specifically designed to monitor a range of field conditions. Smart farm equipment includes robotics targeted at streamlining certain agricultural processes. Some examples of sensor technology are weather and crop monitors, soil quality sensors, and irrigation software. There are also robotics products being used for waste removal, manufacturing processes, and fruit harvesting. Unlike precision ag, OEM's have not shown much interest in acquiring robotics or sensor technology. It will be up to large farms and food processing plants to individually adopt these technologies as they advance in the development process. It may take longer for sensor and smart farm equipment to become mainstream farm tech compared to some other AgTech niches, but this subsector is poised to create savings for the entire agribusiness industry.

Crop Protection/ Input Management

New crop protection/input management technologies require significant scientific research and development, and the level of investment that has been poured into this subsector (\$576.6 million in 2018) reveals that. These products and technologies aim to increase yield through the development and application of formulations, seed treatments, and nutrient technologies to improve plant and soil health or reduce other inputs. The adoption of this technology by farmers has been slower than expected, but many farmers that implement it are seeing the difference in crop yield and crop quality. Going forward, large vertically integrated agribusiness companies are expected to further investment in crop protection/input management tech, but most of the unique and disruptive work is still in the development phase and under the influence of venture capital funding. Despite this subsector's uncertain future, this AgTech niche has the most potential to disrupt the industry.

Crop Protection/ Input Management (cont.)



VC Funding for AgTech

The AgTech ecosystem is young and diverse. There are new players entering the market every month, and when a new start-up needs funding, venture capital cash usually fills that need. When it comes to a nascent industry like AgTech, the funding totals can get into the hundreds of millions of dollars. The top ten companies with the most venture capital investment in 2018 account for nearly \$450 million.

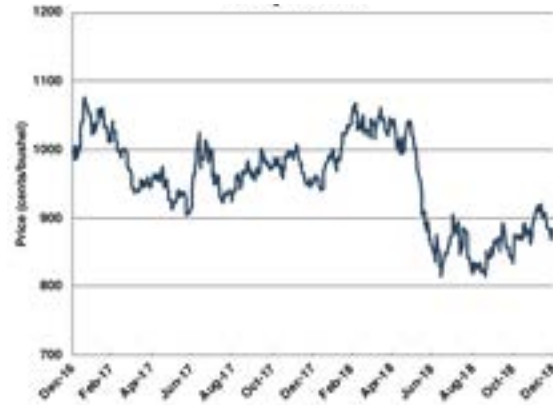
Company	AgTech Niche	2018 VC Funding
Indigo AG	Input Management/Marketplace	250,000,000
Pivot Bio	Input Management	70,000,000
Inari	Plant Sciences	40,000,000
Ceres Imaging	Imaging	25,000,000
Midwestern Bioag	Input Management	15,000,337
Puris Proteins	Plant Sciences	12,500,000
Phytelligence	Input Management	9,850,000
Xiant Technologies	Plant Science/Animal Science	8,999,841
Bushel	Marketplace	7,000,000
Myriad Mobile	Marketplace	7,000,000

The AgTech company who pulled the most funding in 2018 was Indigo Ag. Indigo is headquartered in Boston but primarily operates out of Memphis, TN. Indigo has an innovative Ag Marketplace service that links buyers with sellers and transports products between the two. Indigo also sells treated seeds. These seeds are more immune to disease, yield more, and die out at a slower rate. Indigo also runs a geospatial research division, which integrates precision ag technology with imaging technology to provide crop analysis. With such a range of services that include elements from several AgTech subsectors, Indigo is in a position to be an industry leader in the near future.

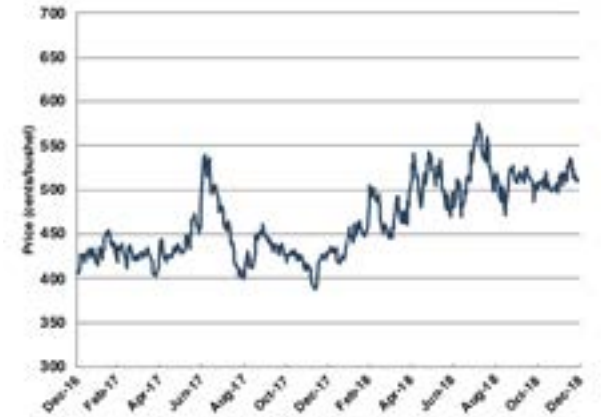
Corn



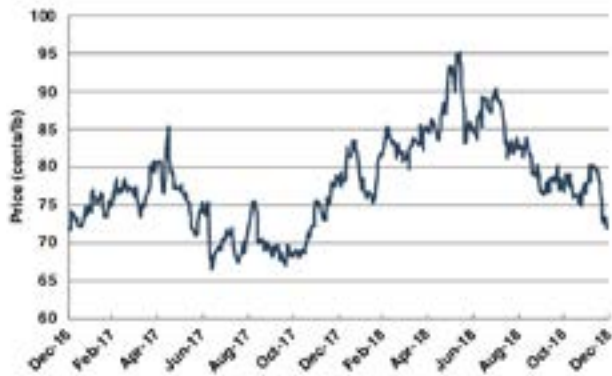
Soybeans



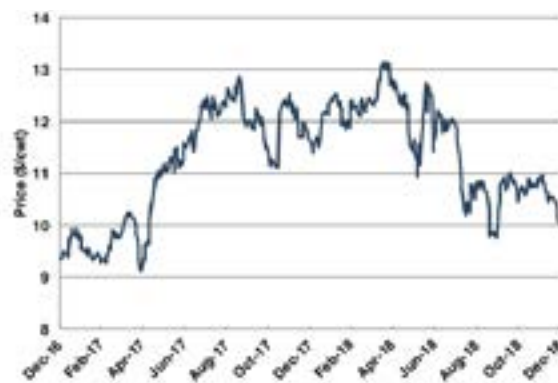
Wheat



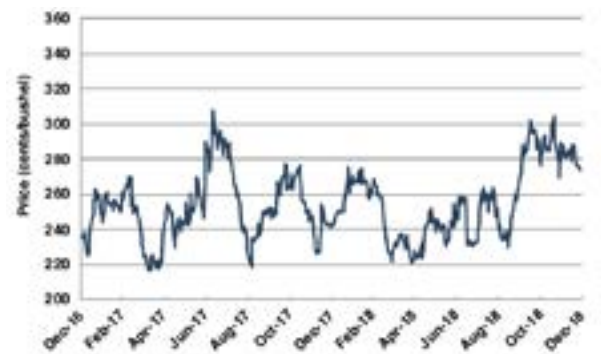
Cotton



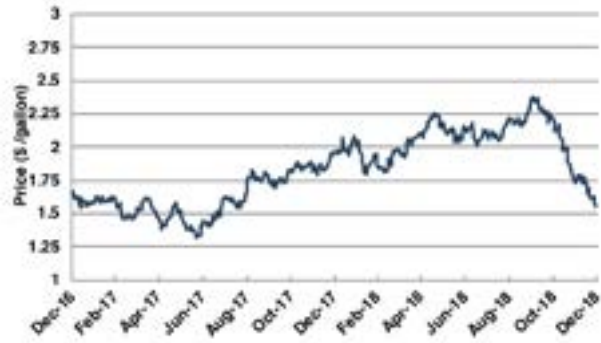
Rough Rice



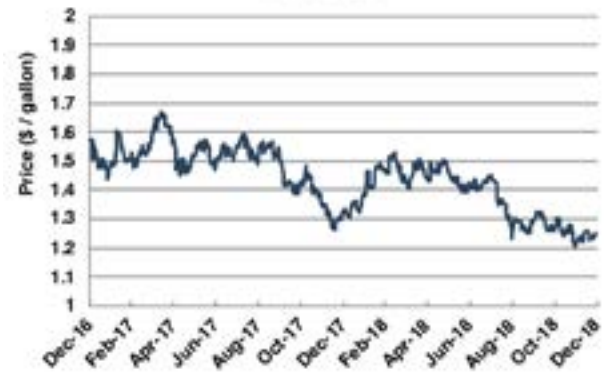
Oats



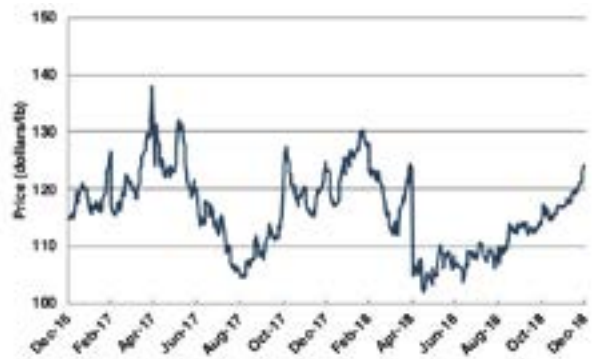
**U.S. Gulf Coast Ultra-Low Sulfur No 2 Diesel Spot Price
(Dollars per Gallon)**



Ethanol



Live Cattle



Lean Hogs



Publicly Traded Agribusiness Companies

Company Name	Ticker	Price 12/31/18(\$)	52 Wk Perform (Market Cap)	LTM Revenue (\$)	Enterprise Value (\$M)	Debt/ MVTC	EBITDA Margin	EV / LTM EBITDA (x)	TEV / Nxt Yr EBITDA (x)	Price/ LTM Earnings (x)
Diversified Agribusiness										
CF Industries Holdings, Inc.	NYSE:CF	43.51	2.3%	4,429	16,444	28.6%	36.4%	10.21	8.91	34.90
The Mosaic Company	NYSE:MOS	29.21	13.8%	9,587	15,051	30.1%	20.7%	7.59	6.75	23.91
Intrepid Potash, Inc.	NYSE:IPI	2.60	-45.4%	162	348	14.3%	31.5%	6.82	5.72	28.26
Yara International ASA	OB:YAR	38.48	-16.4%	12,928	13,857	28.8%	9.6%	11.12	7.09	66.11
Nutrien Ltd.	TSX:NTR	46.99	N/A	18,772	39,649	23.3%	20.3%	10.43	8.72	NM
Archer-Daniels-Midland Company	NYSE:ADM	40.97	2.2%	64,341	29,966	28.0%	4.5%	10.46	8.32	12.77
Bunge Limited	NYSE:BG	53.44	-20.3%	45,743	15,788	34.3%	3.4%	10.11	8.50	33.78
Median - Diversified Agribusiness			-7%	12,928	15,788	28.6%	20.3%	10.21	8.32	31.02
Agricultural Machinery & Equipment										
Manufacturers										
Deere & Company	NYSE:DE	149.17	-5%	37,318	86,857	49.1%	15.9%	14.62	14.44	20.32
AGCO Corporation	NYSE:AGCO	55.67	-22%	9,352	6,018	24.3%	8.4%	7.64	7.26	15.37
Lindsay Corporation	NYSE:LNN	96.25	9%	535	991	11.8%	9.3%	19.83	14.81	56.56
Median - Manufacturers			-5%	9,352	6,018	24.3%	9.3%	14.62	14.44	20.32
Dealers										
Titan Machinery Inc.	NasdaqGS:TITN	13.15	-38%	1,237	641	63.7%	4.4%	11.79	11.45	17.97
Rocky Mountain Dealerships Inc.	TSX:RME	6.46	-40.8%	770	413	78.5%	4.7%	11.47	14.82	9.80
Cervus Equipment Corporation	TSX:CERV	9.34	-22.1%	989	296	51.5%	4.2%	7.09	6.61	7.51
Median - Dealers			-38%	989	413	63.7%	4.4%	11.47	11.45	9.80

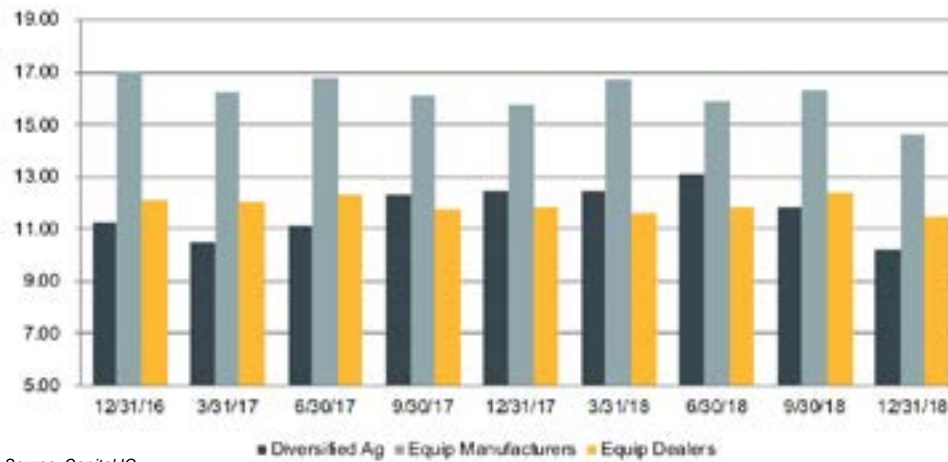
Source: Capital IQ

Mercer Capital Agriculture Indices: One Year Performance



Source: Yahoo! Finance

Historical EV / EBITDA Multiples



Source: Capital IQ

Mercer Capital

Agribusiness Industry
Services

Mercer Capital has expertise providing business valuation and financial advisory services to companies in the agribusiness industry.

Industry Segments

Mercer Capital serves the following industry segments:

- Agriculture Machinery, Equipment, & Implements
- Crop and Crop Services
- Agriculture Real Estate
- Agriculture Chemicals

Services Provided

- Valuation of agriculture companies
- Transaction advisory for acquisitions and divestitures
- Valuations for purchase accounting and impairment testing
- Fairness and solvency opinions
- Litigation support for economic damages and valuation and shareholder disputes

Contact a Mercer Capital professional to discuss your needs in confidence.

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