

Consumers and investors embrace plant-based protein



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I believe that in a decade we will look back on the recent Beyond Meat IPO and appreciate the enormity of this event in shaping the direction of the Food and Agribusiness industry. While some might argue that my interest in Beyond Meat's IPO is mostly due to its strong stock performance, I'm actually more focused on the company's valuation of over \$4.5 billion, which indicates that investors understand that the alternative protein sector is poised to have transformational impact on the global meat industry. Even if consumers switch just one or two meals a week to alternative protein from animal protein, it is likely to be a more-than-\$100 billion market opportunity. And that is why I am bullish about this sector.

Although I believe that bug-based protein and cellular meat will both play a role in supplying protein to humans and animals, in this article, I intend to focus on plant-based proteins, which have the most market traction today.¹ Of course, the alternative protein sector is not new. Garden burgers, soy milk, Tofurky and artificial crab meat (with non-fish fillers) have been widely available for many years. But, improved product quality, texture, and most importantly, taste, are driving the alternative protein revolution. The best evidence that today's alternative protein products, whether meat or dairy replacement, have gained mass market appeal is the fact that these products sit on the shelves right next to beef burgers and milk.

Forecast is sunnier than for solar sector

Those who are cynical will think back to more than a decade ago, when the solar sector exploded onto the scene with a number of high-profile IPOs, and the stock price of numerous solar companies appreciated sharply. This was followed by a period of significant volatility, and ultimately a sector crash. However, while Beyond Meat is likely to experience stock price volatility, as many high growth

companies do, I believe that the Food and Agribusiness industry will have a very different outcome than solar.

Firstly, the key difference is that solar energy was initially kick-started by significant government incentives. Whereas the rapid growth in alternative protein consumption is driven by consumers who are looking for products that are more sustainable, particularly with growing concerns about carbon emissions caused by agriculture, especially around animal rearing. There is no better indication of this trend than the recent announcement by New York City Mayor Bill de Blasio, that going forward, all New York City public schools will have “Meatless Mondays”. And, it’s not just the public sector that is embracing alternative proteins. In 2018, WeWork, one of the largest shared-workspace companies, announced that its events will no longer include meat, and that it won’t reimburse employee meal expenses, if those meals include red meat, poultry, or pork. Both announcements focused on the environmental impact, and how reducing meat consumption would reduce water consumption and CO2 emissions.

Second, many consumers are also looking to eat healthier, especially as they age, and are decreasing their meat consumption. This trend will only accelerate with the aging population.

Finally, an increasing segment of the population concerned about animal welfare is shunning the consumption of animal protein, but will still buy products with similar taste and nutritional value. The animal welfare argument is gaining in popularity, shown by the trend for Americans to see themselves as their pets’ “parents”, with pets treated as family members.

Hot topic in the news

Although Beyond Meat has received much of the recent press due to its IPO, Impossible Foods, a competitor, has been making significant news with the announcement that Burger King will be selling the Impossible Whopper and Little Caesars will be offering the Impossible Supreme pizza, topped with its Impossible sausage. It is not surprising, then, that Impossible Foods recently raised a \$300 million financing round, with deep pocketed financial investors – Horizon Ventures, Khosla Ventures, and Temasek – and celebrities – Bill Gates, Jay-Z, and Serena Williams.

There is no question that Beyond Meat and Impossible Foods are at the forefront of this sector with their beef and pork replacement products. However, there are a rapidly increasing number of companies developing or already selling alternative protein substitutes for dairy, poultry, and seafood

products. Furthermore, a tremendous amount of capital is flooding into this sector, so we will see a number of new brands emerge in the near future.

Well-established consumer packaged goods (CPG) companies are not standing idly by and letting new entrants take over the market without a fight. Rather, they are developing their own feast of alternative protein products. Nestlé is leading the way with the announcement that McDonald's will sell its alternative protein burger.² Tyson Foods announced that it plans to enter the alternative protein space through the development of its own product line, which also explains Tyson Foods' decision to sell its Beyond Meat stock prior to Beyond Meat going public.² With the success of Beyond Meat's IPO and the increasing customer demand for alternative proteins, there will be more CPG companies making venture investments in alternative protein companies, as well as developing their own branded products, although not always with the same amount of fanfare.

Market for protein is growing

While I am bullish about the alternative protein sector, I am not predicting the demise of the traditional protein industry. To put things in perspective, alternative protein accounts for less than 2% of protein sold³, and despite strong expected growth, alternative proteins are not going to challenge the dominance of beef, chicken, pork, or seafood any time soon. Furthermore, 2018 set a record for the highest total meat and seafood consumption in the U.S.⁴, even as conventional processes of raising and processing beef, pork, and poultry came under growing public scrutiny. Rather than taking market share from the traditional protein sector, it is possible that alternative proteins will be additive and lead to increased protein consumption overall.

The main challenge for the alternative protein sector is the ability for new entrants to scale into mass-market products and drive down unit costs. Additionally, as more consumers start evaluating alternative protein options and studying the product labels, they will find that many of the current options are not any healthier than traditional meat protein. Some of the leading options also contain more fat and calories than traditional beef patties, as well as additives not found in typical burgers. Over time, it will be more important for alternative protein companies to deliver great tasting and nutritious products with clean ingredient labels. Even if they do all of this, alternative protein companies could still face a backlash from some consumers due to the inclusion of GMO ingredients and non-organic chemicals and pesticides used to grow plant-based proteins.

Although there are some significant challenges to be overcome, the alternative protein sector is, nevertheless, poised to be one of the first areas of Food and Agribusiness to create significant

disruption. Beyond Meat and Impossible Foods are two companies at the forefront of responding to consumer demands to supply fresher, healthier, and more sustainable foods. The alternative protein sector is one of the first segments in the multi-trillion-dollar Food and Agribusiness industry to be disrupted by innovative technologies, and with billions of dollars of new investments, AgTech and FoodTech companies shouldn't be ignored.

1. www.nielsen.com/us/en/insights/article/2017/plant-based-proteins-are-gaining-dollar-share-among-north-americans/, September 2017
2. <https://www.cnbc.com/2019/06/03/nestle-gears-up-to-launch-its-own-plant-based-burger-in-the-us.html>, June 2019
3. Nielsen
4. United States Department of Agriculture (USDA)