FOOD SECURITY ADDS TO THE INVESTMENT APPEAL OF GLOBAL AGRICULTURE

Credit: Josh Withers

The food and agricultural value chain has a massive economic, social and environmental footprint. This US$5 trillion industry represents 10% of global consumer spending, 40% of employment, and accounts for 70% of fresh water consumption.

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Apart from the obvious players, the food and agricultural value chain also comprises a wide range of speciality companies focusing on specific areas to reduce waste and increase productivity and quality. In addition, the application of technology is playing an ever-increasing role within this value chain.

01/ THE INVESTMENT OPPORTUNITY

Since 2004, global investments in the food and agriculture sector have grown significantly, with previously unavailable investment opportunities now becoming readily accessible. Food and agricultural companies on average have demonstrated higher total returns to shareholders (TRS) than many other sectors: the TRS of more than 100 global publicly traded food and agribusiness companies increased by an average of 17% annually between 2004 and 2013, compared with 13% for energy and 10% for IT[9].

Over the next few decades, the world's population will continue to grow, driven by developing markets coupled with increasing income per capita. On the other hand, the world is facing a growing shortage of food supply, primarily due to declining arable land and a water shortage. Other factors, such as the reduction of waste and the application of smart technologies to improve productivity, present opportunities to address some of this shortfall. All of these present a growing and an attractive investment opportunity.

FIGURE 28: TYPICAL PLAYERS AND CHARACTERISTICS OF THE FOOD AND AGRICULTURAL VALUE CHAIN

	INPUTS, e.g. equipment, seeds, fertiliser, pesticides	FARMLANDS	COMMODITIES & TRADING	STORAGE, TRANSPORT, PROCESSING, PACKAGING	WHOLESALE, RETAIL
OWNERSHIP	Mostly public companies, some private companies	Mostly private owner operators. Some public/ private funds	Public and private companies	Public and private companies	Mostly public companies
EXAMPLE OF KEY PLAYERS	John Deere, Monsanto Yara, Mosaic, Bayer, Omnia	Family ownership, listed REITs, e.g. Farmland Partners	Bunge, Archer Daniles, Midland, Amaggi, Raizen, Grainvest	Cargill, JBS, Tyson Foods, Richardson, Mondi	General mills, Kraft, BRF, Nestlé, Pioneer Food, Tiger Brands
INVESTMENT RETURN PROFILES	Some cyclical	Stable (if diversified)	Highly cyclical	Some cyclical	Stable (if diversified)

9 Pursuing The Global Opportunity In Food And Agribusiness – Lutz Goedde, Maya Horii, Sunil Sanghvi – McKinsey and Company, July 2015

10 World Agriculture Towards 2030/2050 – United Nations' Food and Administration Organisation, 2012

02/ SUPPLY AND DEMAND TRENDS

Feeding the global population is a critical issue due to the combination of increasing demand and increasing supply constraints[10].

INCREASE IN DEMAND

- In 1960, the world population was three billion. In the last 57 years more than four billion people have been added to the planet and today between 800 million and 1 billion people are starving.
- Population growth in developing countries is equivalent to adding the entire current US population every four to five years. At this rate, the world population will expand to 8.5 billion by 2030 and 10 billion by 2050.
- GDP per capita is increasing rapidly in developing countries, resulting in rising demand for higher caloric intake and protein. If current trends continue, by 2050, caloric demand will increase by 70% and crop demand for human consumption and animal feed will increase by at least 100%. Protein consumption is set for continued growth and, while estimates vary, it takes about 5 kg of grain to produce 1 kg of meat.

INCREASING SUPPLY CONSTRAINTS

- Globally, over 20% of arable land is already degraded. Increasing urbanisation is also removing arable land from production.
- Non-genetically modified, organic produce and local and free range farming in developed countries require more land and resources than traditional commercial methods.
- The typical North American diet requires two acres of farmland per person. If current trends continue, this will shrink to 0.3 acres per person globally in 40 years .
- Agriculture accounts for 70% of fresh water demand. According to estimates, 40% of this demand is unlikely to be met in 2030.
- Rising demand is depleting global crop inventories. Moreover, food and energy production are competing (ethanol as an example) as corn and sugar are increasingly important for both.
- There is a global shortage of skills in agriculture.

SOME WORLD POPULATION FACTS:

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By 2030 the world population will expand to
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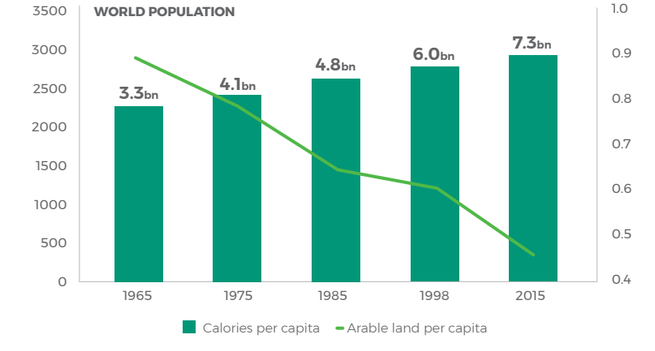
By 2050 the world population will expand to
10 billion

FIGURE 29: DECLINING ARABLE LAND SUPPLY AND RISING FOOD DEMAND



Source: UN Food & Admin Org, "World Agriculture Towards 2030/2050, The 2012 Revision", 2012. Food & Agriculture of the UN: World agriculture towards 2015/2030

03/ HELPING FARMERS COPE WITH CLIMATE CHANGE

Apart from the direct effects that climate change has on rainfall and through heat exposure on crops, it also introduces new pests, diseases and alien vegetation. In the coming decades, farmers will need to find ways to cope with more climate shocks, while roughly doubling the amount of food they produce. Furthermore, they will need to accomplish this feat in a way that is sustainable for both the environment and their bottom line. This requires revolutionary innovation in all areas impacting farming and several new start-up companies have already been formed.

04/ PRODUCING MORE PROTEIN FOR EMERGING ECONOMIES

By 2020, emerging economies are expected to deliver more than half of global GDP growth and will comprise over half the world's urban population. Not only is demand for food expected to rise significantly, but these regions are also likely to consume more calories, protein and processed foods. A projected surge in demand for protein would create opportunities for companies to grow in core production and supporting industries, such as breeding, animal-health testing, feed and vaccines. For example, beef and other livestock production in Argentina and Brazil is expected to grow strongly to meet global demand. Making feed conversion more efficient so that animals produce more meat without necessarily consuming more feed, could be profitable for companies with unique intellectual property in additives such as probiotics, enzymes and acidifiers.

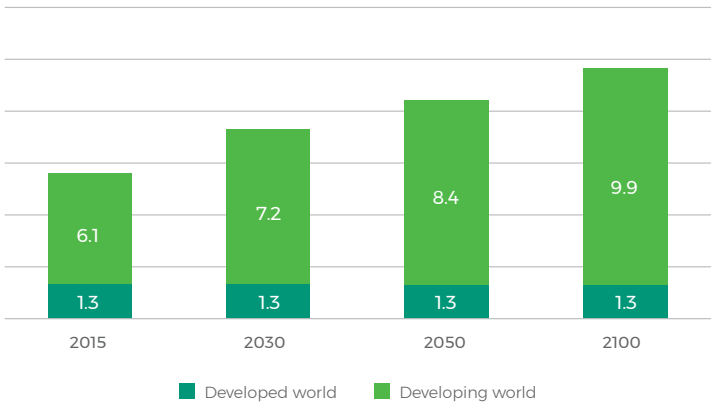
05/ CATERING FOR SHIFTING CONSUMER PREFERENCES

Alongside greater demand for protein, there is a trend towards healthier diets and environmental sustainability and, as a result, food production standards are being tightened. Demand is rising for healthier functional foods (those that offer benefits beyond basic nutrition, such as lowering cholesterol) and traceable and certified foods that meet certain environmental and social standards. While this is most notable in developed countries, it's also gaining momentum in emerging markets. Producers and food companies that embrace more stringent standards should be better positioned for growth in the face of evolving regulation.

06/ A WAR ON WASTE

Reducing waste will also be a key factor to mitigate against the shortfall between food production and demand. Post-harvest waste amounts are estimated at 30% of production in developing countries, mostly due to poor engineering and agricultural practices, inadequate infrastructure and poor storage facilities. Improved logistics are required to reduce this wastage and increase accessibility to food. Furthermore, over 30% of food produced in the developed world goes to waste on retail shelves and in consumer homes. In these markets, there are opportunities for innovative agricultural, logistic, processing and packaging technologies that raise productivity and reduce waste.

FIGURE 30: GROWING WORLD POPULATION FUELLED BY EMERGING ECONOMIES



Source: UN Report: World Population Prospects (2015 Revision)

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07/ INVESTING IN THIS THEME

With local equity markets producing lacklustre returns and global equity markets at all-time highs, investors need to seek out segments of the economy that will give them long-term capital appreciation potential at a reasonable price. While the global food and agriculture sector may often get overlooked from an investment perspective, it is a fundamental sector supporting human existence and offers attractive opportunities for offshore investment exposure.

The world population continues to grow, the middle class continues to expand demanding high calorific consumption per person, and food security continues to be a global issue. Climate change and a decline in newly available arable land conspire to create a structural supply shortage. This outlook suggests that the global food and agricultural value chain is going to remain a high priority going forward and, as such, the companies that successfully contribute to this value chain represent solid long-term investment opportunities.