



# Global agriculture's many opportunities

The first green revolution advanced agriculture a long way. Today, more investment is needed. Here's a look at one of 24 promising investment themes.

Lutz Goedde, Maya Horii, and Sunil Sanghvi

Food and agribusiness form a \$5 trillion global industry that is only getting bigger. If current trends continue, by 2050, caloric demand will increase by 70 percent, and crop demand for human consumption and animal feed will increase by at least 100 percent. Meeting this demand won't be easy: for example, 40 percent of water demand in 2030 is unlikely to be met, and more than 20 percent of arable land is already degraded.<sup>1</sup>

Sensing an opportunity, strategic and financial investors are racing to capture value from technological innovation and discontinuities in food and agriculture. Since 2004, global investments in the food-and-agribusiness sector have grown three-fold, to more than \$100 billion in 2013, according to a McKinsey analysis. Food-and-agribusiness companies on average have demonstrated higher total returns to shareholders than many other sectors.

But finding new investment opportunities is not easy and requires a detailed understanding of crops, geographies, and complex value chains that encompass seeds and other inputs, as well as

production, processing, and retailing. Much of the potential lies in geographies unfamiliar to some investors and is dependent not simply on crop yields but also on how different parts of the value chain perform.

To identify markets and companies that may be attractive, we analyzed changes in population growth, income, demographics and behaviors, productivity, industry structure, and several other factors. Based on this analysis, we identified 24 hot spots that may prove attractive to investors over the next decade, and then assessed these opportunities on market size, risk, and growth potential (exhibit).

Let's look more closely at an important hot spot.

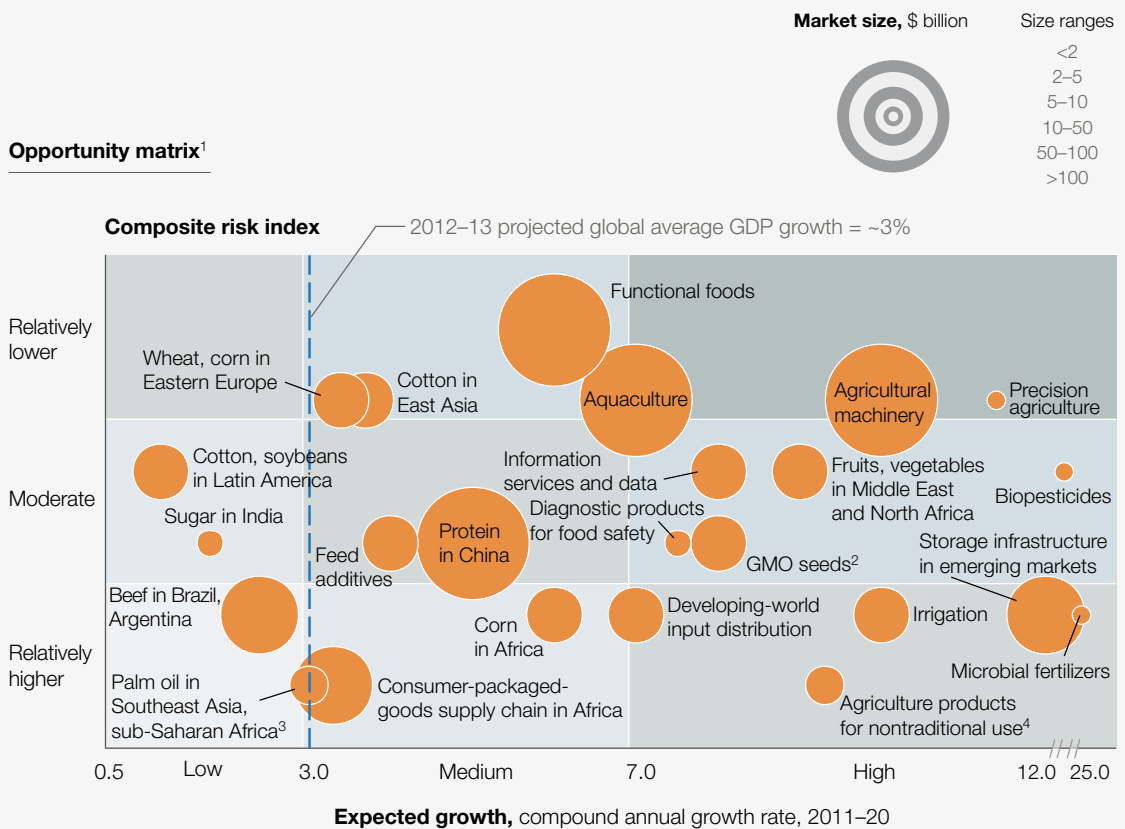
## Protein in China

With annual spending of \$300 billion, China is the world's largest consumer of meat, two-thirds of which is pork. Protein consumption of all kinds is expected to grow there at 3 to 4 percent a year, mostly as a result of increasing demand from

a rising middle class. While levels have risen dramatically, the Chinese continue to trail Western diets in protein consumption. The government has made a strong commitment to modernize the sector, moving from what is largely backyard farming to sophisticated commercial agribusiness. These structural changes and discontinuities make the sector a hot spot worthy of further exploration.

However, the space is vast and complicated, with multiple areas to examine and prioritize across products (pork, poultry, dairy, beef, and fish), value chain (inputs, production, and processing), and cross-cutting themes such as infrastructure. After we assessed major trends, industry structure, and investment opportunities, two areas emerged as attractive possibilities: pork breeding and cold-chain logistics.

**Exhibit We have identified 24 hot spots where agribusiness investment is likely to focus.**



<sup>1</sup>Growth segments (horizontal axis) are low, <3%; medium, 3-7%; high, >7%. Risk (vertical axis) is measured as the sum of scores across 4 types of risk assessed: execution, geopolitical, regulatory and market, and technological.  
<sup>2</sup>Seeds from genetically modified organisms have high regulatory risk in some regions and high acceptance in others (eg, North America).  
<sup>3</sup>Palm oil has higher risk in sub-Saharan Africa, where most growth will come.  
<sup>4</sup>Agriculture products used for construction and pharmaceuticals (not cotton, energy, food, tobacco, or wood).

Source: *Ag2020: Growth and investment opportunities in food and agribusiness*, a joint report from McKinsey and Paine + Partners, 2013

China's pig-breeding market is substantial, with about \$1 billion in annual revenue and favorable economics. Breeding is one of the critical means to modernize the protein industry. The technology and intellectual property developed in genetic research allow companies to capture significant margin. Investors must identify international players that are well positioned, with reliable Chinese partners. It is critical to offer a compelling value proposition to the Chinese government that combines contributing to local production and productivity improvements with food-security solutions, including direct supply chains into China. Meanwhile, Chinese companies are not standing still: WH Group (formerly Shuanghui International Holdings), China's biggest pork producer, completed the \$4.7 billion acquisition of Smithfield Foods, the 87-year-old US meat giant with brands such as Armour and Farmland, in September 2013.

On the back of the increased protein demand and formalization of the Chinese food system, there is a potentially big investment opportunity in developing the cold chain, or refrigerated storage and transportation, in the Chinese food industry, given increasing consumer and government expectations for food quality and safety. To reach developed-market scale in both cold storage and transportation, the Chinese cold-chain-logistics market would have to grow more than 20 percent a year for the next five to ten years. Annual growth rates of more than 15 percent are required to reach government targets for cold-chain penetration of agricultural products. Analysts forecast the global cold-chain market to grow at 16 percent annually to 2018. The current industry is fragmented at the local and regional levels, suggesting that more consolidation and vertical integration can be expected. Given the capital intensity of the sector, the opportunity

for investors may lie in acquiring an international player that is well positioned in warehouse-logistics management (where the margins are highest) and has the right customer relationships and local partners.



Global agribusiness is moving quickly and is already catching up to some of the opportunities our analysis revealed. And conditions are always changing, making investment more difficult in some markets. Nonetheless, the global gap between supply and demand requires more resources—technical, human, and financial. Investors have a critical role to play in meeting this challenge—and opportunities to benefit. ■

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<sup>1</sup> Z. G. Bai et al., *Global Assessment of Land Degradation and Improvement. 1. Identification by remote sensing*, Food and Agriculture Organization of the United Nations; ISRIC—World Soil Information, 2008, [isric.org](http://isric.org). The report defines degradation as a long-term decline in ecosystem function and measures it in net primary productivity.

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**Lutz Goedde** ([Lutz\\_Goedde@McKinsey.com](mailto:Lutz_Goedde@McKinsey.com)) is a principal in McKinsey's Denver office; **Maya Horii** ([Maya\\_Horii@McKinsey.com](mailto:Maya_Horii@McKinsey.com)) is a principal in the Washington, DC, office; and **Sunil Sanghvi** ([Sunil\\_Sanghvi@McKinsey.com](mailto:Sunil_Sanghvi@McKinsey.com)) is a director in the Chicago office.

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