

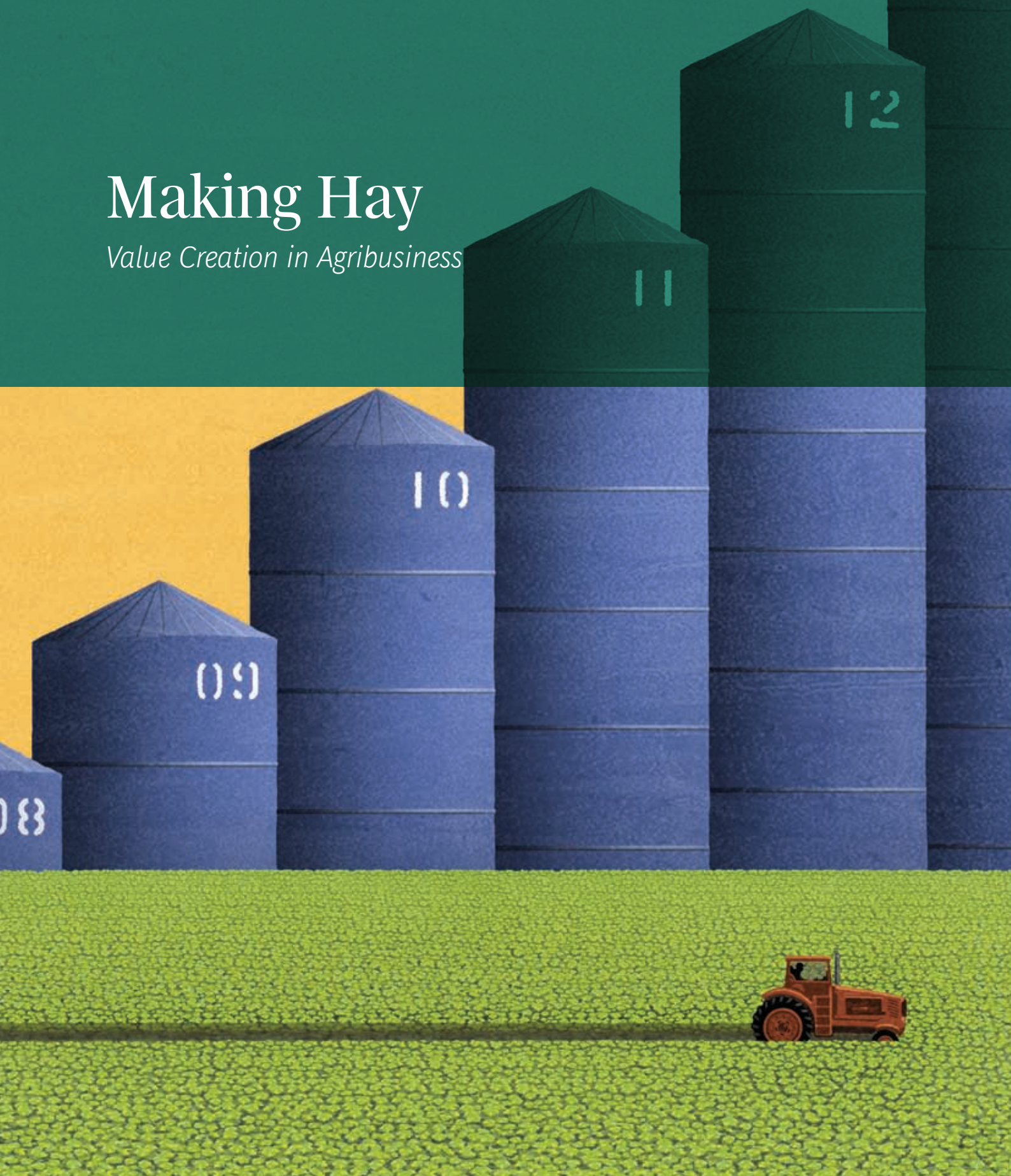
# BCG

THE BOSTON CONSULTING GROUP

50  
SHAPING  
THE FUTURE.  
TOGETHER.  
YEARS

# Making Hay

*Value Creation in Agribusiness*



The Boston Consulting Group (BCG) is a global management consulting firm and the world's leading advisor on business strategy. We partner with clients from the private, public, and not-for-profit sectors in all regions to identify their highest-value opportunities, address their most critical challenges, and transform their enterprises. Our customized approach combines deep insight into the dynamics of companies and markets with close collaboration at all levels of the client organization. This ensures that our clients achieve sustainable competitive advantage, build more capable organizations, and secure lasting results. Founded in 1963, BCG is a private company with 78 offices in 43 countries. For more information, please visit [bcg.com](http://bcg.com).

#### **The BCG Game-Changing Program**

We are living in an age of accelerating change. The old ways are rapidly becoming obsolete, and new opportunities are opening up. It is clear that the game is changing. At The Boston Consulting Group, we are optimistic: we think that the fundamental drivers of growth are stronger than they have ever been before. But to capitalize on this trend, leaders need to be proactive, to challenge the status quo, to make bold moves—*they* need to change the game, too. The decisions they make now, and over the next ten years, will have an extraordinary and enduring impact on their own fortunes as well as on those of their organizations, the global economy, and society at large. To help leaders and to mark our fiftieth anniversary, BCG is pulling together the best ideas, insights, and ways to win—to own the future. This publication is part of that endeavor.



THE BOSTON CONSULTING GROUP

# Making Hay

*Value Creation in Agribusiness*

**Decker Walker, Kim Wagner, Gerry Hansell, Frank Plaschke, Ketil Gjerstad, and David Tapper**

February 2013

## AT A GLANCE

---

Agribusiness is booming. Its shareholder returns were higher than those of every other industry surveyed by BCG from 2007 through 2011, thanks in part to rising commodity prices. But not every agricultural company benefited equally. The top performers all did something—in R&D, M&A, or operations—to produce industry-leading returns.

### **STRONG UNDERLYING FUNDAMENTALS**

By 2050, there will be 9 billion people on the planet—2 billion more than today. The combination of population growth and dietary shifts toward increased consumption of protein will require a 70 percent increase in food production. The growing use of biofuels will also contribute to demand for agricultural commodities.

### **RECOMMENDATIONS FOR MAINTAINING MOMENTUM**

Having already reaped the benefits of a rising-price environment, executives must look elsewhere for shareholder returns. The playbook should include improving the efficiency of operations, investing in innovation, and maintaining an open posture toward M&A. In the meantime, the cash-rich industry should return excess cash to owners through dividends and share repurchases.

---

**A**GRIBUSINESS HAS CREATED SIGNIFICANT value in recent years. The 40 global agribusiness companies in The Boston Consulting Group's Value Creators sample generated a total shareholder return of 13 percent annually from 2007 through 2011—higher than every other industry group surveyed. (TSR is the annual percentage return to owners, which comes from capital gains plus any dividends.) An investment of \$100 in these companies on January 1, 2007, would have grown to \$184 by the end of 2011, versus \$108 for the same investment in the S&P Global 1200 Index. What accounts for these gains? Can they be sustained?

Many agribusinesses benefited from a substantial rise in commodity prices. But higher prices don't explain the results for all these companies. (Indeed, 9 of the 40 companies in our sample had a negative TSR over the period.) The companies with the highest TSR all took action of one sort or another well before commodity prices rose, enabling them to benefit disproportionately. Some executed shrewd acquisitions that reshaped the competitive landscape of their sector. Some pursued promising R&D investments while their rivals were retrenching. Some made a science of reducing their expenses.

Prices of many agricultural commodities are already at or near record highs, but steady price climbs are unlikely over the next five years. Instead, companies will face uncertainties because of new government policies, global climate change, emerging diseases and pests, and technological developments. These uncertainties are likely to lead to a period of commodity price volatility. In the near term, agribusiness executives should return some cash to shareholders through increased dividends and share repurchases—in order to compensate them and encourage them to wait for new opportunities. And when opportunities do arise, executives should be bold about deploying capital. Cost reduction, innovation capabilities, and M&A will all continue to offer promising areas for investment.

## Strong Underlying Fundamentals

Agribusiness has become a phenomenal story. Consider the numbers: there are 7 billion people on the planet today, and demographic projections suggest that there will be an additional 2 billion by 2050. People will also consume more calories and higher levels of protein than ever before. The combination of population increases and dietary changes will require an estimated 70 percent increase in food production. Greater use of crops for alternative purposes, including fuel, will further increase global demand.

On the supply side of the equation, food production will be constrained by decreases in arable land, dwindling water resources, changing weather patterns, and

---

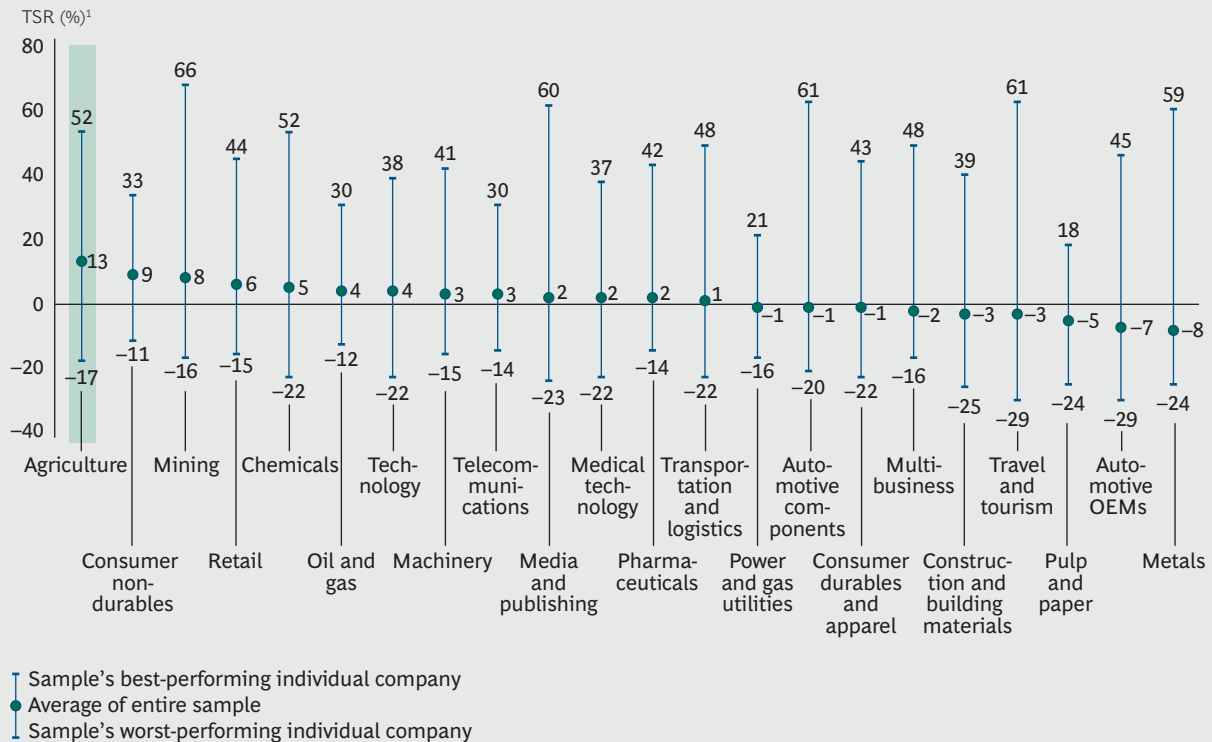
The combination of population increases and dietary changes will require an estimated 70 percent increase in food production.

growing resistance of weeds, diseases, and insects to crop protection chemicals. Supply and demand dynamics have already pushed commodity prices to record levels. For instance, corn, which traded below \$2 per bushel for most of the past 100 years, recently traded above \$8 for an extended period. Likewise, food surpluses are dwindling, and food security is becoming an increasing concern. China, for example, was one of the largest exporters of corn ten years ago, but it now imports more than 2 million tons per year.

Companies engaged in agribusiness have benefited enormously from this favorable environment. The annual TSR for agribusiness companies averaged 13 percent during the five years from 2007 through 2011—a period during which the S&P Global 1200 Index eked out a gain of only 1.4 percent annually (versus the long-term historical average for equities of approximately 9 percent). (See Exhibit 1.) Indeed, agribusiness performed far better in the same period than any of the 21 other industries surveyed in BCG’s annual Value Creators report. The group continued its strong TSR performance in 2012. (See the sidebar “Update: Agribusiness TSR in 2012.”)

Have the TSR gains just been luck—a function of rising commodity prices? Or is there something that top-performing agribusiness companies have done that their peers can learn from?

#### EXHIBIT 1 | Agribusiness Shareholder Returns Are the Highest Among BCG’s Value Creators Sample



**Sources:** Thomson Reuters Worldscope; Thomson Reuters Datastream; Bloomberg; company disclosures; BCG analysis.

<sup>1</sup>Five-year average annual TSR (2007–2011) for weighted average of respective sample.

## UPDATE: AGRIBUSINESS TSR IN 2012

The TSR of the agribusiness sample companies remained strong in 2012, increasing by an average of 15.1 percent in that 12-month period.

Stocks in many industries throughout the world rebounded sharply in 2012, with the TSR of the S&P Global 1200 Index surging almost 17 percent. So while returns for the agribusiness sample remained high in 2012, performance was somewhat lower in calendar year 2012 than it was from January 1, 2007, through the close of markets on December 31, 2011 (the period analyzed in this report).

It may be a few months or more before all 40 companies in our sample report their results for calendar year 2012. When these data are all available, we will better understand the contribution of the individual drivers (revenue growth, margin change, and valuation multiple changes) to this performance. We will publish an updated report later this year with additional insight into the sector's more recent TSR performance and the implications for companies in the agribusiness sector.

## Understanding the Sample

The BCG Value Creators sample of agribusiness companies consists of public companies that generate most of their revenues from the direct production of agricultural inputs (such as seeds) or outputs (such as processed meat). These 40 pure-play agribusiness companies include a mix of developed- and developing-market organizations with market capitalizations from \$1 billion to more than \$40 billion. (For a list of the companies in our sample, see the Appendix, page 15.) Because of the constraints used in constructing it, the sample leaves out some important entities that play key roles in the agribusiness value chain. Those include the following:

- State-owned enterprises, such as Belaruskali and China National Cereals, Oil and Foodstuffs Corporation
- Private companies, such as Cargill, J.R. Simplot, and Koch Industries
- Diversified companies with significant agribusiness activities, such as DuPont, Dow, FMC, BASF, and Bayer
- Companies that are not primarily engaged in agribusiness—such as SQM, which generates a substantial share of its revenues from mined commodities, and Hormel, which has a large consumer-focused business
- Cooperatives, including Fonterra, Land O'Lakes, Dairy Farmers of America, and Cenex Harvest States
- Farmers themselves—the large- and small-scale producers of agricultural commodities

The sample is divided into five subgroups: fertilizer producers, processed-protein producers, processed-crop producers, agricultural-chemical and seed producers, and agricultural-equipment makers. These subgroups are diverse in their business models. For instance, the agricultural-chemical and seed subgroup is R&D intensive, focused on discovering new traits, molecules, and formulations, while the fertilizer subgroup is more capital-intensive, focused on achieving the best possible use of physical assets. The subgroups also have very different industry structures: the agricultural-chemical and seed subgroup is highly concentrated, for instance, and the processed-protein subgroup is far more fragmented.

## Five-Year TSR Performance

BCG uses the lens of TSR to measure a company's value creation over time. TSR can be expressed as a total or broken down into its drivers—such as fundamental performance (a company's profits and cash flows) and investors' expectations (the valuation multiples applied to those profits and cash flows). In the case of BCG's agribusiness sample, these factors produced an annual average TSR of 13 percent from 2007 through 2011.

Sales growth was the biggest positive factor, contributing 17 percentage points to overall TSR annually. The next-most positive factor was the change in profit margins, which are defined as earnings before interest, taxes, depreciation, and amortization (EBITDA) per dollar of sales. Although many agribusiness companies are not just sellers of agricultural commodities but also buyers—and are thus negatively affected by higher prices for certain commodities—the sample as a whole was able to expand its margins by enough to drive 7 percentage points of TSR. (A smaller positive factor was cash flow, which contributed 0.2 percentage points to the group's five-year TSR.)

The industry's TSR was constrained by a significant reduction in valuation multiples, specifically an 11 percentage-point decline in the ratio of enterprise value (EV) to EBITDA. Subtracted from the 24 percent fundamental return (revenue and margin growth plus cash flow), this produced the overall TSR of 13 percent. (See Exhibit 2.)

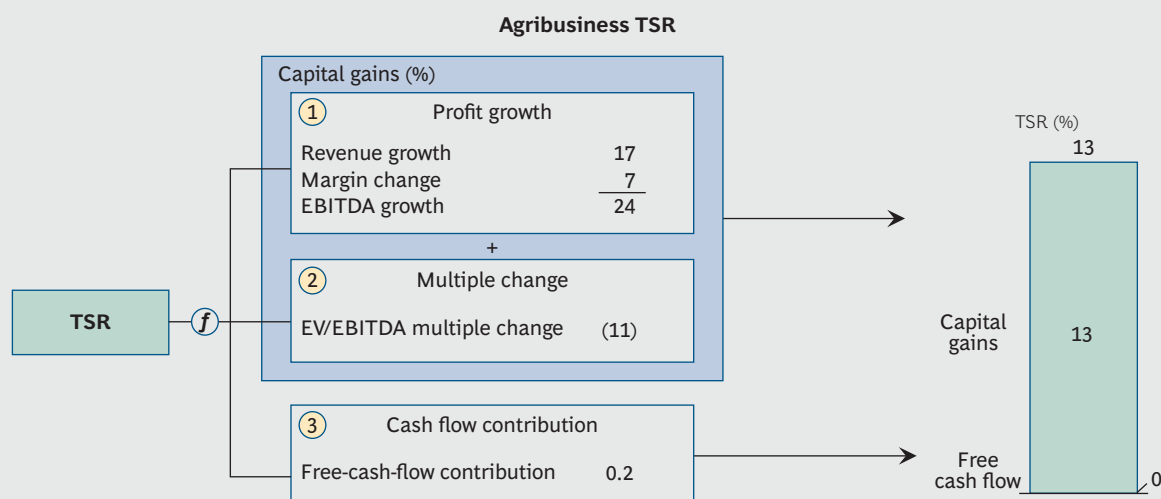
## Subgroup Performance

The strong TSR performance of the sample wasn't limited to any one subgroup; all five had impressive returns. Three of the five subgroups (fertilizer producers, processed-protein producers, and processed-crop producers) outperformed the other industries we surveyed, and even the two lowest-performing subgroups (agricultural-chemicals and seed producers and agricultural-equipment makers) generated top-quartile returns when compared with the overall market. (See Exhibit 3.)

**Fertilizer Producers.** The fertilizer subgroup generated the highest return in the sample: 18.3 percent. This TSR was driven by higher prices and volumes, which led to revenue growth, and by good cost controls. Acquisitions also played an important role in this subgroup's revenue growth; several larger companies, including CF Industries, executed large-scale acquisitions. Fertilizer prices typically exhibit a

Even the two lowest-performing agribusiness subgroups generated top-quartile returns when compared with the overall market.

## EXHIBIT 2 | Revenue Growth Was the Biggest Contributor to an Agribusiness TSR of 13 Percent



**Sources:** Capital IQ; Bloomberg; BCG ValueScience Center.

**Note:** Decomposition is multiplicative, but here it is converted and shown as additive with remainders assigned to the margin and multiple change fields; sample averages are weighted by market capitalization. TSR is the five-year average annual percentage from December 31, 2006, through December 31, 2011. Fundamental data are adjusted for companies that do not have December 31 fiscal-year ends; in such cases, the closest quarter is used for balance sheet data and the last twelve months are used for income statement data. The dividend contribution includes investments of dividends and special dividends, compounded monthly.

## EXHIBIT 3 | All Five Agribusiness Subgroups Performed Well

| Contribution to TSR (%)                  |               |                   |                     |          |                          |            |   |            |
|--|---------------|-------------------|---------------------|----------|--------------------------|------------|---|------------|
|  | Profit growth |                   | Multiple change     |          | Cash flow contribution   |            |   | TSR        |
| Company                                  | Sales growth  | + EBITDA margin Δ | + EBITDA multiple Δ | + Debt Δ | + Dividend contribution² | + Shares Δ | = | Annual TSR |
| Fertilizer producers                     | 16.9          | 15.2              | (15.4)              | 1.2      | 1.9                      | (1.4)      |   | 18.3       |
| Processed-protein producers              | 20.3          | 7.9               | (13.6)              | 2.3      | 2.3                      | (6.8)      |   | 12.5       |
| Processed-crop producers                 | 28.2          | (3.0)             | (8.4)               | (1.5)    | 2.3                      | (5.5)      |   | 12.2       |
| Agricultural-chemical and seed producers | 10.1          | 2.8               | (6.9)               | 0.4      | 1.7                      | 0.5        |   | 8.7        |
| Agricultural-equipment makers            | 6.0           | 1.0               | (2.4)               | (0.4)    | 1.6                      | 1.2        |   | 6.9        |
| Agribusiness sample average              | 17.3          | 6.6               | (10.6)              | 0.4      | 2.0                      | (2.2)      |   | 13.3       |
| S&P Global 1200                          | 6.4           | 0.0               | (0.3)               | (7.8)    | 2.2                      | 0.0        |   | 1.4        |

**Sources:** Capital IQ; Bloomberg; BCG ValueScience Center.

**Note:** Decomposition is multiplicative, but here it is converted and shown as additive with remainders assigned to the margin and multiple change fields; sample averages are weighted by market capitalization. TSR is the five-year average annual percentage from December 31, 2006, through December 31, 2011. Fundamental data are adjusted for companies that do not have December 31 fiscal-year ends; in such cases, the closest quarter is taken and LTM I/S information is used. The dividend contribution includes investments of dividends and special dividends, compounded monthly.

strong positive correlation with underlying crop prices, but the cost of producing fertilizer varies depending on the nutrient type. There are three primary types of crop nutrients: nitrogen, phosphate, and potash. Each has distinct production processes, cost structures, and industry dynamics—and many companies produce more than one type of nutrient.

Nitrogen producers (such as CF Industries, Yara, and Agrium) use a chemical process for production; natural gas is their primary feedstock and cost driver. Because of the shale gas revolution and the accompanying decline in natural-gas prices in North America in recent years, North American nitrogen producers have had a cost advantage over their global peers. Several of them are top-ten performers in the sample.

Potash and phosphate, on the other hand, are usually mined. Potash is extracted at depths of more than 2 kilometers below the earth's surface—although there are some potash producers that use alternative approaches, such as solution mining or brine evaporation. The cost structure for potash producers (which include Agrium, Arab Potash, The Mosaic Company, and PotashCorp) is driven mostly by fuel prices, resource taxes, and labor costs.

Surface mining is the primary means of phosphate extraction, and a large portion of the cost structure also consists of other chemical inputs, specifically nitrogen and sulfur. These inputs, in addition to labor, energy costs, and resource taxes, greatly increase the complexity of managing and forecasting the cost structure for phosphate fertilizer producers (many of which, such as Agrium, Mosaic, and PotashCorp, also produce potash).

The high returns in the fertilizer segment haven't gone unnoticed. New production capacity is being developed and should come online for all three nutrients over the next several years—a scenario that could exert pressure on prices and margins. If the subgroup winds up with overcapacity, there will be an increasing emphasis both on cost reduction and on securing low-cost access to key high-demand growth markets.

**Processed-Protein Producers.** The protein-processing subgroup generated a 12.5 percent TSR. This strong return was driven primarily by annual revenue growth that exceeded 20 percent—the result of a growing appetite for protein, especially in Asia, and a testament to the protein processors' ability to pass along increased input prices to their customers.

This subgroup includes companies engaged in the production of meat, dairy products, and fish—three very distinct markets. (Even within meat, there are significant differences in the methods and cost structures of chicken, pork, and beef production.) The common theme, however, is that protein processors' expenses are largely determined by the cost of feed for the animals.

As with the crop-processing subgroup, higher crop prices tend to hurt protein producers' profitability. Nevertheless, this subgroup has thrived recently—its margins growing by an average of 8 percent per year from 2007 through 2011. Protein processors have controlled their input costs by aggressively managing their own expenses while securing long-term contracts with feed producers.

New fertilizer-production capacity is being developed and should come online over the next several years—a scenario that could exert pressure on prices and margins.

Protein processors are currently the most fragmented of the five subgroups—with lower revenues and smaller equity values than those of most of the other companies in the sample. This is not a surprise; the advantages of local and regional distribution are even higher in this agriculture-commodity area than in others. However, advances in transportation and logistics have made it possible to ship meat products over greater distances. The total volume of meat shipped today is still only a fraction of the volume of all crops shipped. Further consolidation in the industry is a distinct possibility.

**Processed-Crop Producers.** The crop-processing subgroup generated a 12.2 percent TSR, driven primarily by very strong top-line growth. The 28 percent annual revenue growth of this subgroup was the best in the entire sample, as crop processors were able to pass along their higher input costs to customers in the form of higher prices.

The companies in the crop-processing subgroup are primarily buyers of raw agricultural outputs such as corn, soy, and wheat, but in some instances they are actually involved in the production of the outputs as well (as is the case with several palm-oil producers). These companies then process the raw crops and sell the processed end products to other buyers in the form of feed for animals, feedstock for industrial processes, or ingredients for consumer products.

Because crop processors are buyers of agricultural outputs, higher commodity prices tend to hurt their profitability. That dynamic certainly affected this subgroup from 2007 through 2011, when its profit margins shrank. But crop processors did benefit from recent innovations in processing technologies—including advances in enzyme production that enable more rapid conversion of crops into inputs for industrial and fuel use—and from strong demand for biofuels that use corn and other crops as feedstock.

The contribution from cash flow was dilutive to the crop-processing subgroup TSR (negative 4.7 percent), largely as a result of shares issued for acquisitions.

Lower commodity prices would not necessarily be a negative for most crop processors since they are both buyers and sellers of commodities. However, many of the price increases that were passed along to customers might not stick in such an environment. Individual crop processors can differentiate themselves by improving efficiency, maintaining broad distribution networks, forging close relationships with growers, and strategically placing processing assets near areas with the highest crop-production density in order to minimize transportation and logistics costs.

**Agricultural-Chemical and Seed Producers.** This subgroup generated a five-year TSR of 8.7 percent through a combination of revenue and margin expansion. Both margins and the amount of cash paid out rose despite this sector's heavy R&D expenditures. Monsanto, for example, spent \$1.5 billion on R&D (about 11 percent of sales) in its most recent fiscal year, and Syngenta spent \$1.3 billion (8.5 percent of sales).

That this subgroup had a lower TSR than others is not surprising. Farmers purchase seeds annually and apply agricultural chemicals both preemergence and

---

Crop processors benefited from recent innovations in processing technologies and strong demand for biofuels that use corn and other crops as feedstock.

postemergence, making the demand for seed and agricultural chemicals less sensitive to commodity price movements than it is for some of the other subgroups in the sample.

The business models within this subgroup are diverse, and the performance of the companies reflects those differences. In the case of seed, producers such as Monsanto benefited by introducing products with new biotech traits such as herbicide tolerance and insect resistance. (Bt traits, which boost plants' natural insect defenses, are one example.) Seed producers also benefited by acquiring and combining different kinds of germplasm in order to enhance crop yields for farmers.

In agricultural chemicals, branded producers such as Syngenta continued to build their pipeline of new active ingredients for pesticides, while producers such as Nufarm designed proprietary blends of off-patent or licensed molecules. Indeed, as new active ingredients and product registrations declined, most of the sales growth in agricultural chemicals came from such off-patent sales.

The success of the seed producers has likely come at the expense of the agricultural-chemical producers. New generations of defensive biotech traits enable farmers to use lower volumes of crop protection chemicals. As a result, many of the chemical producers, including Syngenta and Nufarm, invested heavily to build their seed businesses.

The continued success of this subgroup will depend in large part on the health of its pipeline of new products and the ability of those products to demonstrate yield benefits for farmers. It's not surprising that seed companies are developing a new generation of traits, such as drought tolerance. For their part, the agricultural-chemical companies face regulatory pressure that is likely to lead to a continued decline in the number of new active ingredients and registrations. Still, there is reason to be optimistic. Because of the development of new technologies such as biologics and seed treatments—and the application of existing technologies to new crops and regions—growth will likely continue.

While farmers tend to spend more on equipment when agricultural-commodity prices are high, the demand is less elastic than in other agribusiness subgroups.

**Agricultural-Equipment Makers.** The agricultural-equipment subgroup generated a 6.9 percent TSR. This was the lowest TSR of the subgroups in the sample, but it still represented a top-quartile return when compared with the overall equities market.

While farmers do tend to spend more on equipment when agricultural-commodity prices are high, the demand is less elastic than in other subgroups. Many farmers can delay equipment purchases for only so long, no matter how low commodity prices might be. By the same token, farmers tend not to purchase new equipment just because commodity prices are high—so it is not surprising that revenue growth (6 percent on an annualized basis) was the lowest in the sample.

The agricultural-equipment subgroup also spends heavily on R&D. These investments have produced several very successful commercial innovations, including auto steer technologies and precision variable-rate planting, application, and harvesting. Despite the R&D expenses required to sustain past and future innova-

tions, this subgroup was able to amortize a large fixed-cost base and expand margins at the rate of 1 percent per year.

The manufacture of tractors, combines, applicators, and other farm machinery is capital intensive. The companies in this subgroup use a substantial portion of their cash flow for capital investments. On average, agricultural-equipment makers devoted the equivalent of more than 25 percent of their current market capitalizations to cumulative capital expenditures from 2007 through 2011. Even with such heavy capital reinvestment, the subgroup's cash flows were a positive contributor to its TSR.

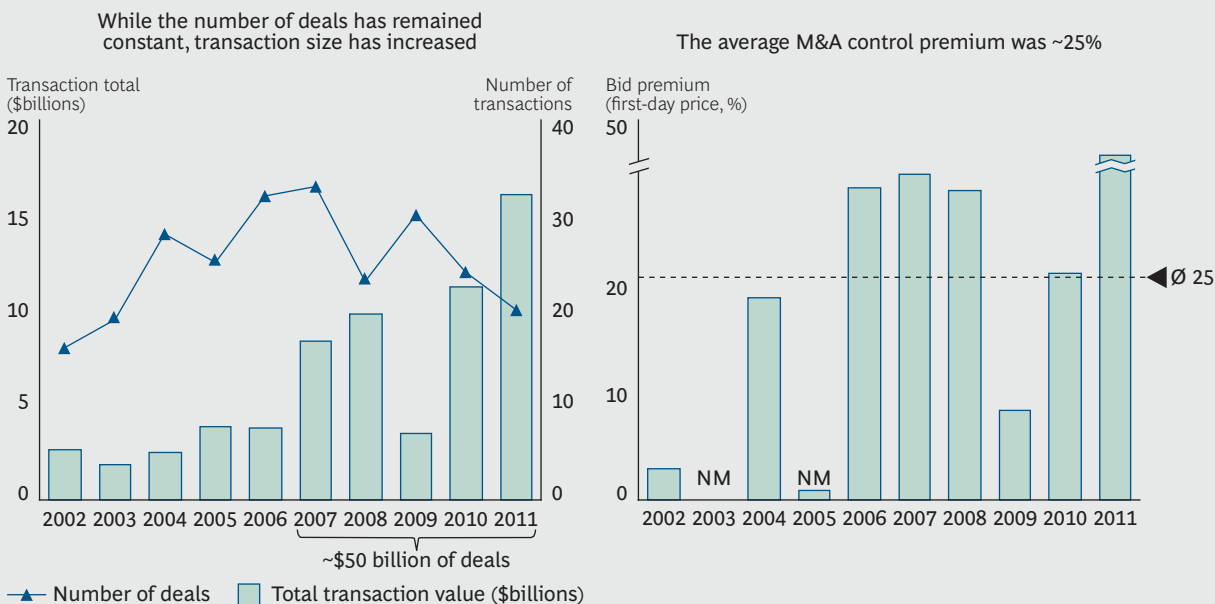
As with the agricultural-chemical and seed subgroup, the future for companies in agricultural equipment depends in large part on the success of the innovation pipeline and responses to disruptive technologies. Innovations in robotics and precision agriculture present both threats and opportunities, as the boundaries between these agricultural-equipment companies and newly arrived competitors increasingly blur (especially in the areas of construction machinery and robotic defense technology).

M&A accounted for more than half of the approximately \$80 billion that these 40 companies plowed into capital investments.

## The Role of M&A

M&A accounted for more than half of the approximately \$80 billion that these 40 companies plowed into capital investments from 2007 through 2011. Of the 130 deals we examined, many had big premiums. (See Exhibit 4.) The best deals managed to create significant value for those involved. For instance, since CF Industries announced

### EXHIBIT 4 | M&A Brings Bigger Deals and Higher Premiums



Source: BCG analysis.

Note: These deals exclude private transactions and transactions with no transaction value. Bid premiums are based on the transaction price versus the price one week prior to the announcement-trading price. The graphics also exclude deals with premiums greater than 100 percent and less than 0 percent. NM = not meaningful.

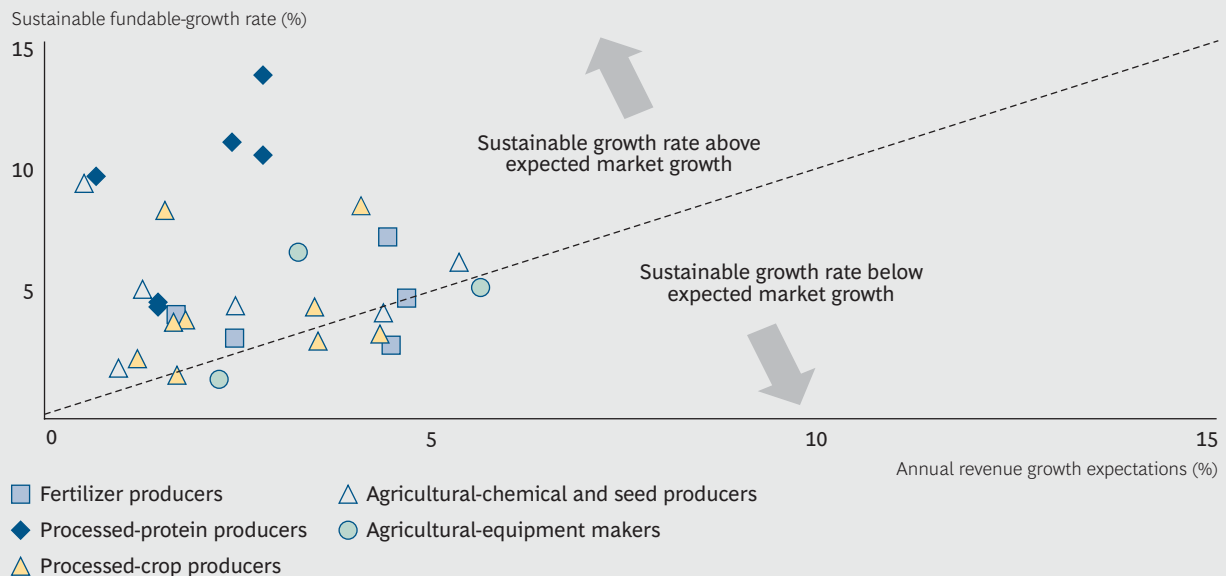
its acquisition of Terra in 2010—in a deal that brought together the two largest nitrogen producers in the U.S.—shares of CF (the company with the second-best TSR in our sample) have more than doubled. Brasil Foods—the biggest poultry exporter in the world—has likewise about doubled in value since it was formed by the combination of Perdigão and Sadia in 2009. (Brasil Foods has the sixth-best TSR in our sample.) Then there is The Mosaic Company, a Cargill subsidiary, which, in 2004, acquired the then-bankrupt potash and phosphate producer IMC. Mosaic had a five-year TSR of almost 20 percent, eighth best in our sample. Acquisitions—involving both strategic and financial buyers—will remain a key part of the industry’s future.

## What’s Next for Commodity Prices?

The prices of many agricultural commodities, including corn, soybeans, coffee, wheat, fertilizers, and cotton, recorded double-digit annual increases in the five years from 2007 through 2011 (with corn increasing more than 24 percent annually). The question is whether those increases will persist in the future. There are different schools of thought on this, but the most likely scenario is probably that we are headed for an extended period of higher highs and lows.

Whatever happens, the rise in commodity prices that has already taken place has put many of the 40 companies in this sample into situations in which they have more cash than they need to fund organic growth. That is, each company’s sustainable growth rate—the rate at which it can grow just by using the cash generated by its business, with no additional leverage—is higher (in some cases, three or four times higher) than the forecast growth rate. (See Exhibit 5.)

### EXHIBIT 5 | Most Agribusinesses Carry an Excess of Cash



**Sources:** Reuters; Compustat; BCG ValueScience Center.

**Note:** Sustainable fundable growth rate is equal to the capital available for reinvestment (after tax gross cash flows minus debt-servicing costs minus economic depreciation minus dividends) over gross investment. This graphic excludes specific outliers with revenue growth or sustainable growth rates that are greater than 15 percent or less than 0 percent.

The ample cash balances that have accumulated and will continue to accumulate can generate substantial value for shareholders if used effectively—for growth in new and adjacent industries, to return to shareholders in the form of increased dividends or share repurchases, or to fund acquisitions. The patient and disciplined use of this cash will be one of the primary determinants of success among these companies in the next five years. So how should this capital be deployed?

## Recommendations for Maintaining Momentum

Every company needs a long-term value-creation strategy, but designing such a plan is particularly challenging for agribusinesses because of the rapidly changing landscapes in which these companies compete. There may be new challenges and opportunities that are impossible to foresee today, including disruptive technologies, shifting industry boundaries, consolidation, and increased regulatory scrutiny. Agribusiness companies seeking to repeat the successful performance of the last five years in the next phase of the cycle will not necessarily be able to follow the exact same path. However, the following are some important lessons from the top performers that all agribusiness companies should bear in mind as they develop their own value-creation strategies.

**Define an explicit TSR objective to guide strategic priorities.** This TSR objective should be grounded in an approach we call *base case plus overlays*. The base case is the amount of value that business unit leaders know—on the basis of the current trajectory of the business—that their units will create without making major changes. Overlays refer to initiatives that could produce better results—that is, a contribution to TSR that is above and beyond what would be achieved in a given period in the normal course of business. Examples of overlays in agribusiness might include eliminating a low-margin customer, consolidating warehouses, or acquiring a regional distributor.

One advantage of the base-case-plus-overlays framework is that it encourages business unit leaders to think more explicitly about TSR and how they can contribute to it. Nonetheless, most overlays come with a certain amount of risk, and this needs to be taken into account. Even a simple risk-categorization system (green for low risk, yellow for moderate, and red for high) can be helpful in thinking about overlays.

**Invest now to aggressively manage costs and improve the efficiency of operations.** A proactive investment in cost reduction now may help companies sustain margins should commodity prices fall. Providing capital (and a higher equity-valuation multiple) will allow investment when others are pulling back. The costs worth examining may be in manufacturing, operations, overhead, or the supply chain.

The agricultural-chemical company Syngenta is already moving in this direction. It has implemented a savings program—aimed at its commercial and supply-chain organizations—and modifications to the way it does global procurement, and it expects that these changes will reduce its annualized costs by \$650 million by 2015.

Golden Agri-Resources, an Indonesian palm-oil producer with extensive operations in China, is using technology to increase its operational efficiency. A central “war

room” that receives daily agronomic data from its plantations, combined with a Google Earth application, identifies low-yield areas and other problems, enabling management to take corrective action. Golden Agri-Resources also keeps its fertilizer costs down by using advanced technologies to sample its plantations at a very detailed level in order to determine the nutrient needs within a given acre. It then uses a GPS-guided system to conduct an aerial application of fertilizer only to those areas that need it.

**Strengthen offensive and defensive innovation capabilities.** The rise in agricultural-commodity prices has attracted a great amount of investment in innovation from both established and startup companies. The resulting innovations could rapidly alter competitive dynamics—from new mining and processing technologies that drastically reduce fertilizer extraction costs to biologics that fight pests while minimizing environmental impact.

---

There will doubtless be opportunities in the future to execute attractive acquisitions at bargain prices—but only for companies that are well prepared.

The companies in less R&D-intensive industries, such as fertilizer and processing, need to develop an in-depth understanding of potentially disruptive technologies (along with a response plan) to protect their core businesses. Those in the R&D-intensive subgroups (agricultural chemicals and seed, for instance) have long understood the advisability of maintaining a heavy R&D investment. But even these companies may need to broaden their scope and explore new technologies that lie outside their core industries.

Both Monsanto and Syngenta, the two biggest R&D spenders in our study, operate their own venture arms to invest in promising early-stage technologies. This can be a good way to stay abreast of industry developments. (See *Corporate Venture Capital: Avoid the Risk, Miss the Rewards*, BCG Focus, October 2012.)

**Maintain a prioritized pipeline of M&A opportunities and continually work the pipeline as circumstances evolve.** With agricultural-commodity prices and agribusiness corporate profits at record levels, many agribusiness companies today appear to be fairly priced. High valuations make value-creating M&A even more of a challenge. However, today’s valuations will not persist forever, and there will doubtless be opportunities in the future to execute attractive acquisitions at bargain prices—but only for companies that are well prepared. A good start is an M&A wish list of targets that would serve to strengthen a company’s regional or global position and a well-understood view of potential synergies and valuations.

**Be prepared to return more cash to investors.** Shareholders will be more inclined to wait for investment opportunities to materialize if they are compensated for doing so. An increasing number of agribusiness companies have recognized this fact and are starting to distribute more cash to shareholders. For instance, many of those in the fertilizer subgroup, such as Agrium, CF Industries, Mosaic, and PotashCorp, have more than quadrupled their regular dividends from 2007 through 2011. Others have elected to return cash to shareholders through share repurchases. Deere & Company, for example, spent \$6.5 billion on stock repurchases from 2007 through October 2012 and more than doubled its dividend over the period.

A recent investor survey by BCG suggests that in an environment in which investors expect less growth, a company's free cash flow has become the top investment criterion. Investors increasingly want to see more of that cash in the form of higher dividends and share repurchases. Additional details on how investors think about the opportunity can be found in BCG's 2012 investor survey. (See "Back to the Future: Investors Refocus on Yield," BCG article, April 2012.)

## Value Creation Questions for Agribusiness Executives

The following six key questions can help agribusiness executives assess the readiness of their value-creation plans:

- How does our historical value creation compare with that of our peers and the market?
- What factors drive valuations for our company and our peers?
- What types of investments align best with our business and financial strategies?
- How much value does our business plan create?
- How do different businesses and strategies contribute to our value creation?
- How should we allocate capital? Do we have a current list of companies that we might want to acquire, and have we identified properties we ourselves own that we might want to divest? Are we appropriately diversified relative to any given commodity-price exposure? That is, are we neither too diversified nor too concentrated.

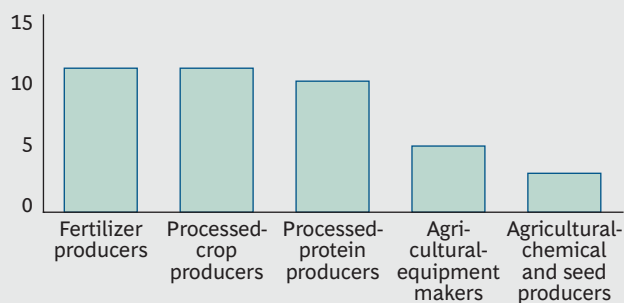
**H**OW AN INDUSTRY that has been around for thousands of years sneaked up to become one of Wall Street's top performers is a fascinating story. Agribusiness will face a lot of challenges in the next five years, but the basic trends that have buoyed the sector (including population growth, higher per capita calorie consumption, and the increasing use of crops in biofuel) remain intact and may emerge as even more powerful forces in the future. Nevertheless, agribusiness's recent track record shows that profits in the industry have not been distributed equally, let alone randomly. The companies that successfully anticipated a trend, undertook a step change in their cost structure, or risked a sector-altering acquisition and made it work have reaped the greatest benefits. This willingness to take bold, strategic action will inevitably be a hallmark of future big winners in agribusiness, as well.

## Appendix

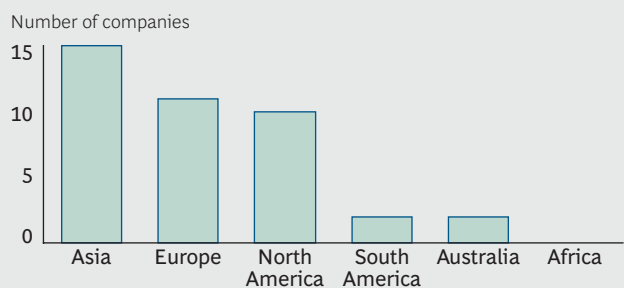
The 40 pure-play agribusiness companies in BCG's Value Creators sample include a mix of developed- and developing-market companies with market capitalizations from \$1 billion to more than \$40 billion. The exhibit below lists the companies and provides a breakdown by subgroup and geographic location.

## The Companies in BCG's Agribusiness Sample

Number of companies by segment



Location of sample companies



Source: Computstat.

The sample

|                           |                          |
|---------------------------|--------------------------|
| AGCO                      | Israel Chemicals Ltd.    |
| Agrium                    | K&S                      |
| Arab Potash               | Kuala Lumpur Kepong      |
| Archer Daniels Midland    | Kubota                   |
| Astra Agro Lestari        | Marine Harvest           |
| Brasil Foods              | Monsanto                 |
| Bucher Industries         | The Mosaic Company       |
| Bunge                     | Nippon Meat Packers      |
| CF Industries             | Nufarm                   |
| Charoen Pokphand          | Nutreco                  |
| China Mengniu Dairy       | PotashCorp               |
| CNH Global                | Qinghai Salt Lake Potash |
| Dalian Zhangzidao Fishery | Smithfield Foods         |
| Dean Foods                | Suedzucker               |
| Deere & Company           | Syngenta                 |
| Glanbia                   | Taiwan Fertilizer        |
| Golden Agri-Resources     | Tate & Lyle              |
| Incitec Pivot             | Tyson Foods              |
| Ingredion                 | Wilmar International     |
| IOI                       | Yara                     |

## About the Authors

**Decker Walker** is a principal in the Chicago office of The Boston Consulting Group, a core member of the Corporate Development practice, and an Americas agribusiness topic expert. You may contact him by e-mail at [walker.decker@bcg.com](mailto:walker.decker@bcg.com).

**Kim Wagner** is a senior partner and managing director in the firm's New York office and a global-agribusiness topic expert. You may contact her by e-mail at [wagner.kim@bcg.com](mailto:wagner.kim@bcg.com).

**Gerry Hansell** is a senior partner and managing director in BCG's Chicago office and a BCG Fellow. You may contact him by e-mail at [hansell.gerry@bcg.com](mailto:hansell.gerry@bcg.com).

**Frank Plaschke** is a partner and managing director in the firm's Munich office. You may contact him by e-mail at [plaschke.frank@bcg.com](mailto:plaschke.frank@bcg.com).

**Ketil Gjerstad** is a partner and managing director in BCG's Oslo office and a commodities topic expert. You may contact him by e-mail at [gjerstad.ketil@bcg.com](mailto:gjerstad.ketil@bcg.com).

**David Tapper** is a partner and managing director in BCG's Sydney office and an Asia-Pacific agribusiness topic expert. You may contact him by e-mail at [tapper.david@bcg.com](mailto:tapper.david@bcg.com).

## Acknowledgments

The research described in this publication was sponsored by BCG's Industrial Goods and Corporate Development practices. The authors would like to thank Alexander Purdy and Edward Koai for contributions to the data analysis and writing of this report, as well as Kimberly Boyd, Joseph Brilando, Mark Freedman, Daniel Friedman, Alexander Roos, and Brett Schiedermayer. They would also like to acknowledge Robert Hertzberg and Mary Leonard for assistance in the report's conceptualization and writing, and Katherine Andrews, Gary Callahan, Sarah Davis, Angela DiBattista, Kim Friedman, and Sara Strassenreiter for contributions to its editing, design, and production.

## For Further Contact

If you would like to discuss this report, please contact one of the authors.

To find the latest BCG content and register to receive e-alerts on this topic or others, please visit [bcgperspectives.com](http://bcgperspectives.com).

Follow [bcg.perspectives](#) on Facebook and Twitter.



# BCG

THE BOSTON CONSULTING GROUP

Abu Dhabi  
Amsterdam  
Athens  
Atlanta  
Auckland  
Bangkok  
Barcelona  
Beijing  
Berlin  
Bogotá  
Boston  
Brussels  
Budapest  
Buenos Aires  
Canberra  
Casablanca

Chennai  
Chicago  
Cologne  
Copenhagen  
Dallas  
Detroit  
Dubai  
Düsseldorf  
Frankfurt  
Geneva  
Hamburg  
Helsinki  
Hong Kong  
Houston  
Istanbul  
Jakarta

Johannesburg  
Kiev  
Kuala Lumpur  
Lisbon  
London  
Los Angeles  
Madrid  
Melbourne  
Mexico City  
Miami  
Milan  
Minneapolis  
Monterrey  
Montréal  
Moscow  
Mumbai

Munich  
Nagoya  
New Delhi  
New Jersey  
New York  
Oslo  
Paris  
Perth  
Philadelphia  
Prague  
Rio de Janeiro  
Rome  
San Francisco  
Santiago  
São Paulo  
Seattle

Seoul  
Shanghai  
Singapore  
Stockholm  
Stuttgart  
Sydney  
Taipei  
Tel Aviv  
Tokyo  
Toronto  
Vienna  
Warsaw  
Washington  
Zurich  
  
bcg.com