Senator Blumenthal

- 1. Is there a risk that the significant debt Bayer is taking on to complete the acquisition of Monsanto (and avoid a shareholder vote on the deal) will result in significantly higher prices for consumers?
 - a. If not, please explain in detail how this would be avoided

A: We do not see any risk that the manner in which we finance the acquisition will have any bearing on product pricing. Product pricing is largely market demand driven and independent of our financing or any other operational expenses. Our goal is to create the most innovative company providing the best solutions our customers want. The combination with Monsanto will allow more effective innovation delivering more choice, quality and food security.

We compete with other very strong companies that offer similar products and have strong R&D capabilities, and we must earn each grower's business again every spring. We will only succeed with pricing and selling our products if our value proposition to our customers is better than that of our competitors and if we continue to innovate. We are also convinced that in a competitive business such as the agriculture industry, the efficiency gains generated by innovation will increase returns for farmers.

Senator Cruz Questions for the Record for Jim Blome, President & CEO, Bayer CropScience North America Senate Committee on the Judiciary Consolidation and Competition in the U.S. Seed and Agrochemical Industry

Questions

1. Earlier this month, the Agricultural and Food Policy Center (AFPC) at Texas A&M University issued a report, "Effects of Proposed Mergers and Acquisitions Among Biotechnology Firms on Seed Prices." This report concludes that the proposed mergers between Dow and Dupont and Monsanto and Bayer will increase seed prices for corn, soybeans, and cotton. Notably, the report indicates that the price of cotton could increase by almost 20%. Do you have any response to these findings? Will seed prices increase? If not, what did the report get wrong?

A: On a high level, the report assumes anticompetitive effects without any underlying data and discounts the effects of innovation. Nevertheless, it is important to note that each company (including Bayer) must earn a grower's business every spring. If a company's value proposition to customers—including the value of the innovation incorporated into a product—does not justify the price of a given product, customers will not purchase that product. We are convinced that this transaction will enable greater innovation and associated efficiency gains, which in turn will increase returns for growers.

2. In the last quarter century, the agricultural industry has consolidated dramatically into the "Big Six" companies that now control the market. With these proposed mergers, it looks like we're heading toward a "Big Four." In her written testimony, Dr. Moss states that the Dow/DuPont and Monsanto/Bayer mergers "will likely raise entry barriers for smaller innovators and increase the risk that they are foreclosed from access to technology and other resources needed to compete effectively." Can you respond to this? How would these mergers affect the smaller businesses and entrepreneurs in Texas?

A: As discussed during the hearing, both Monsanto and Bayer have broadly outlicensed their trait technology to regional seed companies in, e.g., corn and soybeans. We do not currently see any reason why this would not continue post-transaction.

3. Several of the people I have spoken with in the farm and agricultural industry believe that effects stemming from these mergers should be reviewed collectively. If you disagree, could you please explain why?

A: At this point, all pending transactions are known to both the Department of Justice and the Federal Trade Commission. These agencies have statutory mandates to conduct a thorough analysis of the transactions before them and the dynamics of the industries involved. We expect

that they will do just that and look forward to working with the agencies in a diligent manner to address any concerns they may have with our transaction.

- 4. The Wall Street Journal has noted that Federal Reserve polices after the financial crisis inflated asset prices, and more recently, that the end of Fed stimulus has led the dollar to rise sharply, which has given us falling prices in many farm commodities. We have seen this effect very clearly in Texas's energy industry, which has seen prices fall more than in half since 2014, hitting the entire regional economy. Do swings in commodity prices, specifically crop prices, have a negative impact on the agricultural industry as whole? Would it be better for your company to have a more stable dollar and more stable commodity prices? What role do Federal Reserve policies play when your company makes decisions, such as the decision to merge with another company?
 - a. Do swings in commodity prices, specifically crop prices, have a negative impact on the agricultural industry as whole?

A: Price volatility is and has been an intrinsic characteristic of agricultural commodities. Price changes reflect a number of factors, including farmers' responses to supply and demand imbalances. Because of season lead-times, positive and negative weather effects, pest and disease pressures, and other factors, volatility in farm commodity prices is often pronounced. Developing and providing new and innovative tools will better allow farmers to mitigate risks, including prolonged commodity price slumps.

b. Would it be better for your company to have a more stable dollar and more stable commodity prices?

A: Bayer operates in more than 100 countries and in differing currency regions, allowing us some ability to manage and mitigate currency fluctuations and their impact on our business. However, like most businesses, any economic and financial environment in which we operate that is more predictable would be a benefit. Stable commodity prices certainly would benefit growers, and Bayer benefits when growers benefit.

c. What role do Federal Reserve policies play when your company makes decisions, such as the decision to merge with another company?

A: We analyze current and future market conditions when making our investment decisions. To the extent Federal Reserve policies are a factor that affects market conditions, it is captured by our analysis.

We evaluate mergers and acquisitions based on many factors. If we choose to finance a merger or acquisition in the capital markets, the terms we receive will be dictated by those markets as they evaluate our financial capacity, credit quality, and other relevant factors.

Senator Leahy questions to all witnesses

1. All farmers, whether they use genetically engineered (GE)-traited technologies or not, are still looking for non-GE choices to expand their rotations and to seek higher value markets. Many of you have discussed the impact that the pending seed and chemical company mergers will have on innovation. Some have argued that the mergers will enhance innovation, and others that it will stifle innovation. Those who are concerned about less innovation if the mergers are approved have noted the difficulty in crafting a potential remedy for that concern, as questions about innovation present unique challenges that are far more complex than simply divesting existing businesses or product lines.

QUESTION 1.a What are the potential opportunities and mechanisms for enhancing public plant breeding capacity to address the loss in diversity of seed choices for farmers, and the many needs of farmers that will not be addressed by the private sector, whether or not we continue to see mergers in seed companies?

A: We believe that there will be an increase in diversity of seed choices for farmers in the future because billions of dollars will continue to be invested by Bayer, other private entities, and public entities to research and develop seed choices, other agricultural technologies, and related products to give farmers a variety of options to increase yields.

A major report called "USDA Roadmap for Plant Breeding," March 11, 2015, highlights opportunities and mechanisms and the continuing role of many federal and public entities in enhancing public plant breeding capacity and addressing the many needs of farmers by the private and public sectors. The report points out that "the private sector does outstanding plant breeding for some crops and situations." It also notes that companies in the private sector are world leaders in inventing new genomics-assisted methods for improving yield and disease resistance in grain crops. That report describes in detail the many public entities working on plant breeding and efforts to increase seed choices. The combination of Bayer and Monsanto will allow more effective innovation delivering more choice, quality, and food security. The combined R&D portfolio of Bayer and Monsanto would have exceptional depth, reach, and great potential. The agriculture industry is at the heart of one of the greatest challenges of our time: how to feed an additional 3 billion people in the world by 2050 in an environmentally sustainable way. That is a challenge we welcome. The full text of that USDA report is available at http://www.usda.gov/documents/usda-road map-plant-breeding.pdf

We are also very aware that some farmers and consumers are looking for non-GE choices. We believe that demand can also be met through the abovementioned mechanisms and that the premium prices for those products are beneficial to farmers who want to grow those products.

QUESTION 1.b

As you consider the challenges farmers are facing today needing access to seeds that are well adapted to their farming systems, soils, and the changing climate, would you support additional investments in public research on diversification of seed stocks and publically available plant varieties in this country that could lead to greater genetic diversity?

A: Yes, Bayer would support additional investments in public research.

Senator Perdue:

Questions for all company witnesses

Over the last two decades the ag seed and chemical industry has seen a substantial increase in the cost and time of getting new technologies from discovery and development to farmers in the field. Studies have shown that it takes an average of 13 years and \$136 million to get new biotechnology registrations and 11 years and \$286 million to get new crop protection products to market. A large portion of these increased costs are from the increasingly complex federal regulatory framework.

• In what ways do federal regulations specifically impact your company's process from discovery to registration?

A: The regulatory process for approval of both new seed traits and new chemistries has become increasingly costly and time consuming without a commensurate improvement in the protection of human and environmental safety. The cost of bringing a new crop protection chemistry to market has increased significantly over the last 20 years. Not only is the cost of research and development increasing, but also the cost and time associated with the Environmental Protection Agency's registration process has expanded. In 1995, the total cost to bring a new product to market was \$152 million. A study of new chemistries entering the market from 2010 to 2014 shows that has increased by 88% to \$286 million. At the same time, the costs directly associated with EPA's registration of a new chemistry have increased from 13 million to 33 million, a 153% increase.

The situation is much the same for new biotechnology traits, where the time to market is around 13 years, with about 5.5 years for regulatory science and registration activities, and costs about \$136 million, with about a quarter of that related to regulatory approvals.

Improving the pace and efficiency of these two regulatory processes, while maintaining the integrity of the process and outcomes, would help to reduce costs and allow new tools to be brought to the farm more rapidly.

In what ways could this regulatory burden be eased on your company?

A: Because all competitors in the industry face the abovementioned challenges, predictability in the regulatory environment is essential. This includes reliance on sound scientific data, and adherence to established schedules and protocols.

With regard to international acceptance, continued support from the US Trade Representative's office in international trade negotiations to protect the primacy of US regulatory processes and to seek harmonization of international regulatory processes that are based on the World Trade Organization's requirements for risk based rulemaking will help our and other companies bring new products to market more quickly and at less cost.

Question for Monsanto/Bayer

Growers in Georgia have expressed concern with consolidation in the industry and how that will affect their input costs. If the Bayer/Monsanto deal goes through, then the two companies would control over 70% of the Southeast cottonseed market.

• How would you address farmers' concerns with competitively priced inputs in the future with one company controlling this much of the market?

A: We recognize that there is an overlap between the two companies in the cotton industry and expect that the agencies will take a close look at that industry. We are committed to working with the authorities in a diligent manner to address any concerns they may have. That said, each company (including Bayer) must earn a grower's business every spring. If a company's value proposition to customers—including the value of the innovation incorporated into a product—does not justify the price of a given product, customers will not purchase that product. We are convinced that this transaction will enable greater innovation and associated efficiency gains, which in turn will increase returns for growers.