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AGRIBUSINESS

INDUSTRY STUDY FINAL REPORT

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AGRIBUSINESS

ABSTRACT: The American agribusiness industry is in the midst of a global competition that is re-defining the role of US agriculture in the world marketplace. The forces that are shaping this competition include: the integration of world agricultural markets, world-wide adoption of cutting edge technologies, and aggressive foreign government agricultural policies. In addition to these competitive forces, American agribusiness must contend with: adapting to potentially disruptive technologies such as genetically modified plants and animals, dealing with the threats of biological terrorism and invasive plant and animal species, and adapting to new market/regulatory forces brought about by the 'green' revolution. Unfortunately, the United States Government has been slow to react. The continuation of decades of agricultural subsidies has effectively trapped many growers into producing low-value commodities. For the remainder of the agricultural industry, the government provides little help in dealing with this changing economic environment. The lack of a comprehensive agricultural government policy has left the US agribusiness sector open to attack from aggressive competitive foreign producers, and vulnerable to the uncertainties of a quickly changing marketplace.

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"Food can be a powerful instrument for all the free world in building a durable peace."
-President Dwight D. Eisenhower

A NOT-SO SIMPLE BUSINESS

American agribusiness is not a simple endeavor of growing or raising one's own sustenance. At an ever-increasing pace, it has transformed to an incredibly complex worldwide industry, which vitally impacts the vitality of every nation and the livelihood of every person on this planet. Like most Americans, the members of this industry study came with preconceived notions about agriculture that were woefully outdated. We leave the study with a profound respect for those who labor in it, both at home and abroad, as well as a newfound appreciation of the complex and dynamic nature of the industry.

There are several compelling dynamics that define the industry today. First, the rate of change in the industry is daunting. Whether it's changing demands of consumers, changing technology in inputs or farm equipment, changing logistics methods or perpetually changing markets, all industry participants must respond to the change or face extinction.

The industry is extremely complex. It's a synergistic blend of cutting-edge science, big global business, information-age links at all levels, advanced technology and, undoubtedly, the old-fashioned art and passion of coaxing life from the Earth. If this weren't enough, the industry directly affects, is affected by and is inextricably linked to domestic politics and international diplomacy.

Finally, the scale of the industry is staggering. One need only visit a cornfield that is thousands of acres in size, or a soybean processing plant where tons of proteins are extracted and packaged daily to appreciate the scale of an industry that feeds the world. Additionally, like politics, agricultural economics are truly "local" as well. Discriminating consumers meet small farmers in local markets and on the Internet to create the fastest-growing sector of the industry through direct sales and organics movements.

In order to fully explore this industry, we approached it from a variety of perspectives and data sources. Our informal motto was "From Farm to Fork...and beyond." Like most mottos, ours could not accurately capture the breadth of the topic. As we studied the entire value chain, we found it begins with substantial research and development and includes mass amounts of precursor products and chemicals that precede the "farm" in our motto. We considered every process that added perceived consumer value, including, surprisingly, many that were largely cosmetic. Food production is not a continuum, however, and one can't understand the complexity of the industry without focusing on its component parts. The business varies widely by product, market and locale. We therefore examined the domestic industry both by commodity and by region, contrasting the challenges and outlooks for these components of the industry. For example, farming in rural North Carolina (rapidly evolving from tobacco and textiles to concentrated animal production and vegetables) is far different from the rich, productive Salinas Valley in California (where farming has been a leading industry for 60 years). Likewise, the business of farming commodities to be sold across the globe is dramatically different from producing a niche organic product to be marketed locally. We also examined a wide array of issues that directly impact agribusiness including: environmental concerns; water availability and management; land use and encroachment; biotechnology; food safety; diseases and invasive species; advanced technology in farming; growing labor and immigration issues; the effects of globalization; world trade issues, US government farm legislation, and rural social and economic impacts. Underpinning it all was our interest in national security and other national interests.

Our study group - current members of the national security establishment and national agencies - all greatly benefited from this multi-faceted approach to studying the industry. In the

following pages, we will share with you a few of our observations about this critical national endeavor.

THE INDUSTRY DEFINED

In the simplest of terms, **the agribusiness industry includes all activity that adds value to the course of producing, processing, manufacturing, transporting, distributing, marketing, and retailing food and fiber**. These value-added activities are not limited to private commercial activities alone. Federal, state, and local governments participate as active members of the agribusiness industry by funding research and stimulating agribusiness activity. Other non-business participants in the agribusiness industry include political interest groups, professional societies, consumer groups, environmental organizations, and the media.

Like any industry, agribusiness is based on a value chain that links raw inputs, through a series of producers, processors, distributors, shippers, and marketers, to the final end consumer. Also, like other information-age industries, this 'chain' is becoming increasingly non-sequential as marketers, and even consumers, are reaching back down the value chain to directly influence producers and processors. The chain has become a networked web.

A final note on the industry defined. This study focuses primarily on the portion of the agribusiness industry concerned with producing food – whole, processed, and prepared – both grown and raised While it touches on the fiber part of the industry, the report doesn't address the vagaries of the clothing/fashion industry and related issues.

THE ROLE OF AGRIBUSINESS IN NATIONAL SECURITY

Beyond the increased complexity in the way that elements of the agribusiness value chain are connected, we find that agribusiness is also deeply woven in to the fabric of our national security. As we shall see, agribusiness has profound impacts on all of the instruments of power (diplomatic, economic, military, and informational) that the United States uses to secure its position in the global community.

As we have worked to uncover the complexities of the agribusiness industry we constantly strove to understand this industry in the context of its impact on United States national security. The most elemental way in which agribusiness supports our national security is through the basic ability of our nation to feed itself. This is the reason often touted by Congress when farm legislation is being proposed. Ironically as the world's largest exporter of food, the ability of the United States to feed itself has never been seriously threatened. A more substantial way in which agribusiness supports our national security is through economics. Although farming accounts for less than 1% of our Gross Domestic Product (GDP), the total economic enterprise of producing, processing, distributing, and marketing food and fiber accounts for 13% of the GDP.[1] Also of great importance is that agribusiness is one of the few industries in which the United States historically has run a trade surplus (although, as we shall see, this advantage is evaporating). The influence agribusiness has on the world economy is particularly relevant in recent years due to the emergence of several new agricultural power-houses. Unlike the emerging economic powers of the 1980's and 90's, who chose industrial production as their path to prosperity, many new competitors have chosen agriculture as key elements of their economic competitive model. Notable countries in this regard are China, Brazil, Russia, and Chile. Finally, beyond purely economic considerations, the transfer of food internationally is a key element in the United States' diplomatic efforts with regard to the developing world. These support policies have not been without controversy, but agree or not, one cannot deny the importance of food aid as a vital element of our diplomatic strategy.

Thus, as we shall see, agriculture is a vital element of the national security strategy of the United States. In the following sections of this paper we shall explore how agribusiness supports and interacts within the context of United States food/fiber security, economic competitiveness, and international diplomacy. We shall discuss the current condition of the United States agribusiness sector, review the most serious challenges this industry faces, consider the prospects for continued economic success, and explore the role of the US government in ensuring the continued success of American agriculture. To further our understanding we have also presented three issue essays on: bio-security, food as an instrument of foreign policy, and the impact of labor on international competitiveness.

CURRENT CONDITION AND THE DYNAMICS OF CHANGE

The United States enjoys tremendous advantages in terms of being economically competitive in the global marketplace. These advantages include some of the most elemental qualities of agriculture: abundant high-quality farm land, favorable climate, and water. Beyond these most basic advantages, the United States is the world leader in agricultural technology, has an advanced infrastructure, and is effectively poised to leverage technology and access to credit to reap the benefits of efficient large-scale production. Additionally, the US agriculture industry has the distinct advantage of being co-located with the most lucrative agricultural market in the world – itself.

Yet, even with this impressive list of advantages, the world marketplace is full of competitors with distinct advantages of their own. Much of the most intense competition comes from emerging competitors who possess abundant and cheap sources of land and labor. On top of their abundant resources, these nations have applied advanced technology and aggressive foreign trade policies – a truly threatening combination. The abundance of new markets and new competitors are defining characteristics of the trend known as globalization.

Before moving to the future, it's helpful to know that the USDA says the current state of our farm economy is very good, with 2004 being an exceptional year for farmers. Farmers earned a record $76.3 billion of net farm income with the best financial indicators in over twenty years.[2] This financial achievement was widespread and not limited by region or crop specialty.[3]

Trends

As positive as the general assessment is of the United States agricultural sector, vitally important trends exist that must be taken into account when assessing the overall health of agribusiness. These trends include the effects of technology, international competition, changes in the domestic and international political climate, and the increased desire to make agriculture more economically friendly and safer.

Technology

Technology has long been a key advantage of US agriculture. This history of applying the scientific method dates back to the very origins of this nation as evidenced by the agricultural experiments of Thomas Jefferson.[4] From this early beginning, the US government has long sought to support technological developments in the field of agriculture. Major thrusts of the technological improvements to agriculture included: the development of better varieties of plants, the improvement of growing methods to improve production and soil conservation, and the increased use of mechanization on the farm. Prior to the twentieth century, the fundamental national interest in improving agricultural productivity was to increase the wealth of the nation directly through agricultural production, and also indirectly by 'freeing up' labor for a bourgeoning industrial capability. The twentieth century brought on many exciting agricultural developments which increased farm productivity by a factor of 10 or more and drastically

reduced the percentage of Americans directly involved in producing food.[5] This immense improvement in productivity also fundamentally changed the social landscape of our nation – no longer was agriculture the central economic model for most Americans.

The application of technology is by no means limited to the production of animals and crops. New 'value-added' methods are being introduced constantly to improve the ability of the agribusiness sector to continue to seek profits from the marketplace. These improvements include new packaging, storage, and shipping technologies which allow high-quality products to reach consumers in times (seasons) and places unthought-of of years earlier.[6] As a result of these technologies, it is now possible to enjoy virtually any type of fruit, vegetable, or meat/fish in any modern marketplace throughout the year. New distribution methods that leverage information technology also allow large marketers, such as Wal-Mart, to bring agricultural products to the consumer at an every increasing value.[7]

As stunning as these improvements have been, the twenty-first century promises continued improvements in agribusiness productivity. Genetically modified organisms (GMOs) offer the potential to increase yields dramatically while reducing the costs of production (e.g. reduced herbicide/pesticide use). Beyond simply increasing profitability of existing plant varieties, both plant and animal GMOs may lead to large-scale agricultural production of non-food commodities such as polymers and pharmaceuticals.[8] In addition to GMOs, other technologies, such as information technology coupled with global positioning has allowed the development of 'precision' farming, whereby every acre of soil can be individually monitored and controlled to produce the highest profitability possible.

International Competition

Another trend that is forcefully shaping the face of agribusiness in the United States is the increased presence of intense international competition. While the US is still the world's largest overall exporter of agricultural products, it is also the world's largest importer of such products. The rise in the value of agricultural imports, however, has outpaced the overall rise in exports, and as a result, our historical trade surplus in the agriculture sector is in peril.[9] Although agriculture economists disagree on whether our annual surplus will become a deficit in the coming years, all agree that the US faces tough competition in all agricultural sectors by emerging international agricultural competitors.[10]

International competition in the world of agribusiness is more than simply a trend, it is a vital threat to US agricultural leadership and prosperity. As such, this subject will be covered in more detail in the section of this paper dealing with challenges to the US agribusiness industry.

Political Climate

Domestically, the political forces that shape the Unites States' agricultural policies have been the result of a long history of government support for agriculture. From its beginning, America has been a successful agricultural nation. Yet, even though agribusiness constitutes 13% of the overall economy, only 1% of Americans are directly involved in producing food.[11] American political policy has been very supportive of agriculture throughout the history of this nation (see the section on Government Goals and Roles for more discussion on US farm policy). Until relatively recently, this policy has been focused on the domestic agricultural sector. However, dramatic changes in the level of economic integration in the world (globalization) have made such a distinction virtually impossible today.

The United States has employed both a multilateral and regional approach to engage world markets and open them to American businesses. At a multilateral level, the United States is a participant in the 148-country World Trade Organization (WTO). The WTO is designed to liberalize trade. Specifically within agriculture, the WTO seeks to remove border protection, export subsidies, and domestic supports.

Regionally, the US is taking a somewhat different tack. It began by signing a Free Trade Agreement (FTA) with Canada and Mexico – the North America Free Trade Agreement or NAFTA. Using NAFTA as a baseline, the US is attempting to expand its base in the hemisphere through the Central America Free Trade Agreement (CAFTA). These regional trading blocks are a cooperative response to the European Union, the ASEAN FTA (AFTA) – which China is looking to engage with Mercosur in South America, and the like.

As much as multilateral and regional trade agreements have benefited the United States by opening markets and lowering tariffs, they have also exposed fundamental rifts between regions of the world agricultural market. The WTO has effectively pitted the developed countries of the world against those developing; the rich against the poor; the North against the South… creating an "increasingly polarized ideological gap."[12] Developed countries with high productivity and diminishing population growth want access to markets which can only come by concessions (specifically, import tariffs) from poor countries. Developing countries, which because of cheap labor have a comparative advantage, want the developed countries to cut their subsidies and reduce trade barriers. To understand the magnitude, industrialized nations spend $1 billion per day on agricultural subsidies. On average US farm support is one-fifth of the value of total agricultural production. The E.U. is almost double that and Japan threefold. Average tariffs for developed countries are about 8 percent, while they are almost 21 percent for developing countries.[13]

The overall role of international organizations and cooperative agreements is far from settled. As such, international trade agreements are yet one more vital area of concern for American agribusiness that has the potential to drastically alter the face of US agriculture.

Ecologically Friendly Agribusiness

As agribusiness enters a new millennium, far greater emphasis is being placed on ecologically friendly agriculture. This type of farming (for plants, animals, and fish) is often described as 'sustainable', 'organic', or quite simply 'green' agriculture. Although, as we shall see, these labels are not strictly synonymous.

There are many different definitions of sustainable food production. One that appears to recognize the need for balance between economics, environment and future food needs is the definition of sustainable agriculture contained in the 1990 Farm Bill.

> Sustainable agriculture is an integrated system of plant and animal production practices having a site-specific application that will, over the long term:
>
> - Satisfy human food and fiber needs
> - Enhance environmental quality and the natural resource base upon which the agricultural economy depends
> - Make the most efficient use of nonrenewable resources and on-farm resources and integrate, where appropriate, natural biological cycles and controls
> - Sustain the economic viability of farm operations and
> - Enhance the quality of life for framers and society as a whole

The debate over what constitutes organically produced goods has been on going for many years. The popularly accepted attributes associated with the label 'organic' are that it provides healthier products, is environmentally less damaging, and therefore it is ultimately more sustainable in the future. The organic movement is in large part driven by people who are environmentally conscious. The initial drive was to eliminate the use of synthetically generated chemicals that were associated with degradation in water, air and product quality. The organic movement was also seen as a way to get back to the land and develop niche markets that would allow farmers to make a living wage despite the competition from the large and conventional producers of food.

Regardless of whether an individual consumer perceives the benefits of green practices to be a matter of quality, economics, or politics, the unmistakable trend is that this green revolution (or evolution) is a trend for the future of agriculture. Consumers are demanding these products, and voters are demanding that their government consider not only the economic viability of farming, but also the long-term effects farming has on the environment.

Food Security/Safety

The focus on food security is another trend that will be with us for the foreseeable future. Prior to 9/11, the primary focus in regards to food security was food safety. This concern covered both intentional acts (e.g. Tylenol poisonings – Chicago, 1982), and un-intentional acts (e.g. food poisoning – salmonella, e-coli, etc.). Post 9/11, the focus has broadened to include the potential for deliberate acts that not only compromise the integrity of our food safety, but do so in a way has the intended consequence of damaging our national economy. Because agriculture is a widely dispersed business, protecting the entire enterprise is not a practical approach. This inherent vulnerability makes agriculture a lucrative target for would-be terrorists intent on damaging the economic well-being of the United States. In terms of dealing with these challenges, the US agribusiness sector is just beginning to come to terms with this threat. This potential threat will be dealt with in more detail in both the section of this paper dealing with challenges to the agribusiness industry, and also in the issue essay dealing with bio-security.

CHALLENGES

Despite the general well-being of the current US agribusiness industry, significant challenges abound. Of all these challenges, the most significant is the presence of intense global competition. World-wide agricultural markets have shaped the US agribusiness industry for many years, but what has fundamentally changed is the intense competitive threat that emerging agricultural power-house nations pose. Many of these emerging economic competitors are choosing to focus on agriculture as their path to prosperity, rather than heavy industry. Unlike the traditional path of economic development, in which efficient agricultural production frees up labor and provides capital for industrial development, nations such as Brazil and Chile are pursuing aggressive strategies to compete and win in the world agricultural market. They are applying every modern technology that they can afford. This has enabled nations to transition more-or-less directly from subsistence agriculture to modern corporate agribusiness. Given the globalization of markets, capital, and technology, plus the ability to cheaply ship products world-wide, the traditional protections provided by time and distance have all but evaporated. Provided with abundant and cheap land, labor, and now access to significant capital, these nations pose a challenge that will seriously stress the United States' ability to continue to be the world leader in agriculture.

Beyond international competition, several other significant challenges exist for the US agribusiness sector. These challenges include the threat from invasive species and the relatively new challenge of bio-security.

Invasive Species

Scientists, industry officials, and land managers are recognizing that invasive species are one of the most serious, yet least appreciated, environmental threats of the 21st century.[14] Research estimates the total annual cost associated with invasive species is approximately $137 billion. This is more than twice the annual economic damage caused by all the natural disasters in the United States.[15]

"Over the past 200 years, several thousand foreign plant and animal species have become established in the United States. About one in seven have [sic] become invasive."[16] Invasive

species are potentially destructive to people, the economy, and the environment because they typically do not have any natural predators in their new environment.[17] Additional challenges of invasive species are their ability to disperse easily, their high reproductive rates, and their tolerance of a wide range of environmental conditions.[18]

The invasive species problem is not one for the US alone. China has alleged that four of its most destructive forest pests have come from the US and that they spend more than $6.7 billion a year fighting invasive species.[19] The World Trade Organization's (WTO) Agreement on the Application of Sanitary and Phytosanitary Measures[20] (known as the SPS Agreement) establishes the world community's basic international rules for food safety and animal and plant health standards. "The basic aim of the SPS Agreement is to maintain the sovereign right of any government to provide the level of health protection it deems appropriate, but to ensure that these sovereign rights are not misused for protectionist purposes and do not result in unnecessary barriers to international trade." Additionally, nations must base protective measures on objective scientific data.[21]

Damage to economies is likely the most immediate and significant impact caused by invasive species. In this broad category, governments, producers, trade, and consumers can experience negative effects. For governments, the most obvious is the cost of containment and eradication. In fiscal year 2000, the federal government spent at least $631.5 million dollars on invasive species activities.[22]

In the end, the consumer suffers through higher prices, lower quality products and shortages.[23]

Bio-Security

Closely related to the threat from invasive species is the threat to the security of America's food system. This is a threat that has received considerable increased attention since terrorist attacks of 9/11. This threat, and the corresponding response, will be discussed in more detail in the issue essay on bio-security.

GOVERNMENT GOALS AND ROLE

The US Government role in agribusiness is complex with many diverse, and sometimes conflicting, roles. Of all of these roles, the most primary are:

- Protect the fundamental ability of the United States to feed itself
- Ensure the economic viability of producing food
- Promote the economic competitiveness of the agricultural industry

In addition, the US Government also supports additional political objectives related to agribusiness, such as:

- Sustaining the American farming 'way of life'
- Protecting specific industries from international competition
- Applying food/trade policy as an element of national power

A look at the American 'Farm Bill' will serve to address the most fundamental (and controversial) of these roles.

The Farm Bill

A bit of historical context is important to understanding America's farm policy. American farmers suffered greatly during the Dust Bowl and Great Depression eras. Poor crop production combined with poor prices led the federal government to actively involve itself in influencing farm commodity prices during the height of the depression. In order to keep commodity prices high enough to allow farmers to earn a reasonable income, Congress passed the 1937

Agricultural Marketing Agreement Act and supplemental 1938 Agricultural Adjustment Act. These two Acts empowered the Secretary of Agriculture to create price stability and fair income for farmers while simultaneously initiating active measures to establish production quotas for commodities.[24] Interestingly, when farm legislation was first enacted in 1937, twenty-five percent of the US population relied on farming for their primary source of income compared to only about two percent of today's US population.[25] While domestic farm production demographics have changed dramatically, agricultural policies have seemingly not adapted. By 1996 government farm programs were relatively successful in preventing crop surpluses from reaching market and maintained a gradual increase in commodity prices. The 1996 Farm Act significantly changed agricultural policy by doing away with target prices and most production management programs that had been implemented and in use by the federal government for the previous sixty years.[26] The intent of Congress in 1996 was to provide annual support to farmers while eventually phasing out the support, thereby "transitioning" farmers to a greater market orientation while complying with WTO agreements.[27] However, by late 2001 crop prices had dropped to such low levels due to crop production surpluses that even more income support payments were demanded by farmers, commodity groups, and politicians. The 1996 Farm Act eventually became so impotent in the minds of legislators that they hurriedly signed into law the 2002 Farm Act – essentially as an extended continuation of the policies of the 1996 Farm Act and the ad hoc emergency spending bills of 1998-2001 but with increased spending.[28]

Since the 1996 Farm Act abandoned supply controls and the 2002 Farm Act extended those policies and implemented new subsidies, farmers have tended to produce as much as possible creating large commodity surpluses while in turn driving commodity prices to all-time lows.[29]

The 2002 Farm Act has thus institutionalized agricultural subsidies to farmers that have distorted market signals. Indeed, farm income has increased over the recent years. However, the policies that have simply rewarded farmers based on the quantity of a crop produced have led to surpluses, price deflation, and competition to attain more land at highly appreciated prices.[30]

OUTLOOK

Long-term Outlook

The long-term outlook for agribusiness is fundamentally good. Quite simply, people need to eat. The world population continues to grow every day, and the world's agricultural resources are limited. The US Census bureau estimates that the current world population of about 6.5 billion will grow to 9.2 billion by 2050.[31] Added to this trend is the increased world appetite for meat products as the average income level increases in such populous places as India and China. (The production of one calorie of beef requires between 11 and 17 calories of grain.[32]) If one thinks that these trends are only some distant future worry, consider that in three of the last four years world grain production has failed to meet consumption. The resulting deficit has reduced world-wide grain stocks to approximately 2 ½ months (from a historical level of 1 year).[33] For the American grain farmer, all this "good news" means that a century of struggling with domestic over-production may be nearing an end. Because the world population consumes roughly half of its caloric intake from grains, studies of world food production typically focus on this sector of the market.[34] Yet, the same basic economics apply to all agricultural products, from cotton to fish. Fortunately, estimates of world agricultural capacity indicate that we will continue to be able to feed ourselves.[35] These estimates, of course, assume responsible management of the world's agricultural resources. One major unknown is how the world agricultural markets will adjust to this new environment. World markets are becoming much more liberalized through such mechanisms as the WTO. This is encouraging in terms of the

markets ability to efficiently devote resources to agricultural production and distribute the products to the consumer – this is what free markets do best.[36] Unfortunately, what free markets are poor at is fostering effective cooperation in terms of sustaining perishable, scarce resources – the "tragedy of the commons."[37] How we solve this contradiction between effective free markets and the protection of our most fundamental resources will have overwhelming consequences on the future of the entire planet.

Short-term Outlook

Even though the long-term outlook for agribusiness is good (abundant demand/finite supply), the short-term outlook for American agribusiness is less obvious. Before increased world consumption can be expected to significantly drive up demand (and therefore prices/profits), the United States agribusiness industry will have to face up to stiff competition, changing markets, and international trade barriers.

According to the USDA, the US agricultural industry is projected to remain competitive in global markets, with gains in US agricultural exports.[38] Market prices and cash receipts will rise, thereby improving the economic and financial condition of the industry.[39] US export volumes will similarly increase.[40] In particular, the US will make significant gains in exports of high-value products, which are comprised mostly of animal and horticultural products.[41] These high-value products will comprise almost two-thirds of future exports.[42] Bulk commodity exports (grains, oilseeds, cotton and tobacco) will also rise steadily, mostly due to projected rising prices and rising productivity.[43] In arriving at these projections, the USDA made some key assumptions regarding macroeconomic conditions, US and foreign agricultural and trade policies, agricultural productivity growth rates and the absence of shocks such as weather, spikes in energy costs, and pest/disease related disasters.[44]

As is often the case, these large-scale macroeconomic predictions can hide significant microeconomic effects. As such, not all agricultural commodities will be expected to enjoy the same level of economic success. In America, agricultural products that are sensitive to the costs of inputs (e.g. land and labor costs) will suffer disparately from other products.

National Security Resource Requirements

In terms of providing for the national security of the United States, the American agribusiness sector is well poised to satisfy our basic food needs now and for the foreseeable future. What becomes the more relevant question is how America will choose to deal with her excess production capacity. Beyond supporting a strong export market, the power of American food production is one element of national power than can be harnessed to augment our national security through constructive engagement with the world's developing nations. The full implications of our nation's food policy with the rest of the world are considered in detail in the subsequent issue essay on food as an instrument of foreign policy."

Political/Social Factors

Although largely overlooked in most analyses, the political and social implications of changes in the American agribusiness industry are significant and important. Of all of these, two are particularly relevant: the changing nature of political influence in the agribusiness sector, and the aging of the American farmer.

The characteristics of the political influence that agricultural producers have today are quite different than they were in the early twentieth century – when much of our current legislative policy towards farming was formed. In the years of the depression, America's urbanization was steadily driving a comparative disadvantage in the farm sector – driving many to relative poverty levels. Surpluses were common, causing low prices. The Federal Farm Board Act of 1929 was created to improve the standard of living for American farmers while

improving the competitiveness of American agribusiness abroad.[45] In these times the fraction of Americans living on farms was approximately one-quarter. Today the percentage of Americans who are farmers is less than two percent.[46] So, has the political influence of the agricultural sector decreased as one might expect? Apparently not. As the population of American farmers has fallen precipitously, the value of government payments to farmers has continued to rise (roughly three-fold in constant year dollars).[47] Given the roughly ten-fold decrease in the number of farmers, this corresponds to a thirty-fold increase in the average payments. This political effect has been attributed to the concentration of American agriculture in the hands of a much smaller number of larger growers. This smaller group not only possesses greater excess capital, but also finds it easier to organize politically.[48] This political effect has had good and bad consequences. In so far as it has increased the farmers' ability to have their economic success virtually guaranteed by the government, it has led to distortions in the market and has cost the US government tens of billions of dollars per year. On the positive side, this increased political clout can provide an offset to the interests of the much larger urban community. In areas such as land and water use, these political issues are quite important to the future success of American agriculture.

Today, over one-quarter of the principle farm operators are over the age of 65.[49] Declining family sizes, combined with a perception of better economic opportunities elsewhere has slowed the within-family transfer of farms among generations. This effect has been multiplied by increases in the size of the average farm and increases in land values (see section on government farm policy). Thus, the value of the typical American farm has become so large that it is exceedingly difficult for young perspective farmers to enter the business.[50] As a result of these trends, the farm income support programs that were intended to provide greater income parity are in fact having the opposite effect. Older, established farmers are becoming better off financially, while young rural residents are loosing ground economically. These policies are creating an economic divide. Evidence suggests that these policies are leading to increases in rural poverty and crime.[51]

Positioned for Success in the Global Marketplace?

The question of whether or not the United States agribusiness industry is poised to succeed in the global marketplace is one that cannot be answered with a simple yes or no. As stated previously, the United States enjoys many natural and internally generated advantages. These advantages include: large quantities of arable land, sufficient water, efficient markets, access to capital, investments in technology, and the wealthiest market in the world. The main disadvantage of the US agribusiness industry is its relatively high input costs, primarily land and labor. In some sectors of the industry, the United States is able to compensate for this disadvantage by leveraging capital and technology to increase the land and labor efficiencies. Large-scale row crop production, and concentrated swine and poultry production are such examples. Where land and labor costs are difficult to reduce (e.g. fruit/vegetable production in California), it has been necessary to shift the focus from reduced input costs to increased product value. Examples of increases in product value include: switching to higher value per acre crops, leveraging advances in shipping and packing to extend available markets in both time and distance, and pre-processing the raw product.

These two basic approaches to competitiveness have created a bifurcation in American agriculture. One path is to compete world-wide on a direct cost basis in basic commodities, while the other is to de-commoditize the product to create more value to the consumer. In answering the question of future American competitiveness, it is necessary to consider both approaches.

In regards to commodity production, it would be wrong to assume that the United States will be unable to compete globally, yet success is far from assured. In producing a product that is indistinguishable from the competition (e.g. soy beans, corn, wheat, etc.), the primary way to win is by having the lowest production costs. This equation fundamentally does not favor the United States. What has occurred to offset the disadvantage of higher production costs is that the US Government has chosen to subsidize production of these commodities (see section on Government Goals and Role). As a result of this dynamic, the American agricultural commodity sector of the agribusiness industry has gone down a path of dependency on government support. In the purely economic sense, the agricultural commodity industry is not "positioned for success." It is worth noting that the American farmers we talked to are confident that, absent US and foreign support for growers, the American farmer can compete and thrive in an open world market. Such an environmental change would undoubtedly drive serious changes in the business, but adapting to the changing marketplace is yet another thing that Americans do well.

This brings us to the other side of agriculture industry – the non-subsidized, de-commoditized agricultural market. Consider, for example, the agricultural industry of the California central valley. This area is one of the highest cost areas of the world to grow food – yet it continues to be successful. In this region, wheat has given way to cotton, cotton to vegetables, and vegetables to higher value fruits and nuts. Additionally, the products that leave California are increasingly 'value-added' products such as pre-processed fruits and vegetables and wine. Clearly the low-cost commodity model does not work here. Instead, these producers (in conjunction with processors, shippers, distributors, and marketers) have continuously adapted to the world food market by producing higher and higher value products. It would be fair to say that all these increases in the value did not come without the spur of intense competition. This competition not only continues, but is increasing in the form of traditionally low-cost international producers who are adopting the high-value strategy. Can places like California continue to compete successfully? Clearly there are limits, but the continued success at adaptation (despite enormous cost disadvantages) is certainly encouraging.

Perhaps the more important lesson to be gleaned from the example of California agriculture is that this economic model can be applied elsewhere in the United States (as foreign growers are proving). In most of America, agriculture means big fields of subsidized commodity crops. The opportunities for higher-value products are abundant, yet we all too often fail to capitalize on these economic openings because of the 'welfare mentality' that has been fostered in American agriculture.

Fundamentally, these decisions go beyond the world of agribusiness – they are political. America can choose to generate a surplus in the quantity of food exported, while simultaneously having a deficit in the value of food exported (imported). There are positive externalities to such a choice – the world is provided with a source of cheap (subsidized) food. Yet, the net effect on America's economic competitiveness is clearly negative. Until the United States is able to define its overall strategic direction in regards to agribusiness it will be impossible to say that American agribusiness is truly "positioned for success."

ESSAY #1: BIO-SECURITY

It has been nearly four years since the September 11, 2001 attacks, and although much has been done to reduce the threat and vulnerability of a subsequent agroterrorist attack, there remains considerable effort to secure one of America's most critical infrastructures. Given that the agriculture industry accounts for 13% of the gross domestic product (GDP) and 18% of domestic employment, an accidental or deliberate release of a plant or animal pathogen could result in major economic crisis and/or public health disaster. The unique characteristics of

agriculture make it difficult to manage potential threats as "agriculture production is geographically disbursed in unsecured environments and livestock are frequently concentrated in confined locations and then transported and commingled with other herds."[52] While the federal government is improving its efforts, more work must be done with a greater sense of urgency to secure the nation's food source.

Threats and Vulnerabilities

The specific threats and vulnerabilities in the farm-to-table continuum are widespread with the farm as the logical first point of entry for the introduction of bioterrorism by a plant or animal pathogen. While animal and plant pathogens available to agroterrorists for possible use in bio-attacks number in the hundreds, there are less than a couple of dozen pathogens that represent a significant threat.[53] The determinant of a pathogen's level of threat depends on the agent's contagiousness and potential for rapid spread. "A widely accepted view among scientists is that livestock herds are much more susceptible to agroterrorism than crop plants. Much of this has to do with the successful efforts to systematically eliminate animal diseases from US herds, which leave current herds either unvaccinated or relatively unmonitored for such diseases by farmers and local veterinarians. Once infected, livestock can often act as the vector for continuing to transmit the disease, facilitating an outbreak's spread, especially when live animals are transported. Certain animal diseases may be more attractive to terrorist because they can be zoonotic."[54] Currently, the three animal pathogens considered most threatening and transmissible to humans are the Avian Influenza, Foot-and-Mouth Disease (FMD), and the African Swine Fever. A natural outbreak of Foot-and-Mouth in Taiwan during March 1997 necessitated the slaughter of more than 8 million pigs, shutting down Taiwan's valuable pork exports. "Given that America's 100 million cattle, 70 million pigs, 10 million sheep, and over 40 million wild, cloven-hoofed animals are susceptible to 70-odd strains of FMD in the world, America is at great risk for a devastating outbreak that could persist for years."[55] According to the Government Accounting Office (GAO), even one case of the disease would cause US trading partners to prohibit export of livestock and livestock products resulting in potential losses of between $6 billion and $10 billion a year until the US eradicated the disease.[56]

In contrast, a number of plant pathogens exist in small areas of the US that infect limited areas of plants each year, making outbreaks and control efforts more routine.[57] In general, plant pathogens are more difficult to manipulate, often requiring specific environmental conditions to take hold and spread and taking, "a longer time than an animal disease to become established or achieve destruction on the scale that a terrorist may desire."[58] If manipulated by terrorists, however, plant pathogens can cause significant widespread crop losses[59] with greater economic consequences than a bioterrorism against farm animals[60] as crops comprise a larger percentage (54%) of the farm gate value and serve as major components of feeds for livestock, poultry, and farm-raised fish.[61]

Beyond the farm, the food processing industry poses another area of concern and vulnerability with a very plausible risk of deliberate contamination. While efforts are underway by the FDA and USDA to fully assess the security at food-processing facilities, both agencies lack of the authority to impose security requirements. "Food processing plants tend to lack uniform security and safety preparedness measures, particularly small and medium-scale operations. Thousands of these facilities across the country exhibit uneven internal quality control standards, questionable bio-surveillance practices and highly transient, unscreened workforces."[62] Additionally, poor record keeping by most small-scale operations make it virtually impossible to trace tainted food items to original sources.[63]

Current Policy

In efforts to improve agricultural safety since 9/11, the government has passed comprehensive legislation including:

The Agriculture Bioterrorism Protection Act under the Public Health Security and Bioterrorism Preparedness and Response Act of 2002 (Bioterrorism Act). This new policy:

- Expanded the Food and Drug Administration's (FDA) authority over food imports and manufacturing.
- Addressed long-standing concerns governing FDA and Department of Health and Human Services (HHS) authority to insure food safety oversight. The Act instructed the FDA to implement four new rules regarding: 1) registration of food processors, 2) prior notice of food imports, 3) administrative detention of imports, and 4) record-keeping.
- Gave tighter biological agent and toxin control to the Animal and Plant Health Inspection Service (APHIS) and the Centers for Disease Control and Prevention (CDC) and made APHIS responsible for establishing the requirements for use, possession, and transfer of the listed pathogens.
- Expanded United States Department of Agriculture (USDA) authority over agriculture security activities and security upgrades at USDA facilities.[64]

The Homeland Security Act of 2002, which transferred agricultural border inspection responsibility from APHIS to the Department of Homeland Security (DHS).

The Homeland Security Presidential Directive (HSPD)-7 in December 2003, which added agriculture to the critical infrastructure list and instructed "agencies to develop plans to prepare for and counter the terrorist threat."[65]

HSPD-9 in January 2004, establishing "a national policy to protect against terrorist attacks on agriculture and food systems."[66] This directive also instructed key agencies such as DHS, USDA, HHS, EPA, the Attorney General, and the Director of Central Intelligence to better coordinate their efforts in preventing an agroterrorist attack.

To date, however, USDA and FDA have not adequately administered the US food recall program, leaving consumers vulnerable to serious illness, hospitalization, and even death. "Specifically, USDA and FDA have not set time frames to encourage companies to act promptly, and because the agencies do not track important dates and recovery rates in their recall data systems, they do not know how promptly and completely companies are carrying out recalls. Furthermore, the agencies' procedures for conducting verification checks do not ensure agency staff recalls promptly reach all segments of the distribution chain."[67] The GAO examined 10 recalls during 2003 and determined that USDA did not have the proper guidance in place with established time frames to ensure agency staff could verify that a company in fact completed its recall. For the district staff, GAO was able to "calculate that it took an average of 38 days to verify whether the recalling company's customers were aware of the recall,"[68] exceeding the shelf life of fresh meat and poultry. Furthermore, unlike other government agencies that regulate the safety of other consumer products, USDA and FDA do not have the statutory authority to recall food; but instead, just to detain meat and poultry under the Federal Meat Inspection Act and the Poultry Products Inspection Act for up to 20 days. Unfortunately, these two statues fail to reduce the vulnerability of the current food recall program, potentially endangering the American public.

The Way Ahead

The enactment of the Bioterrorism Act of 2002 set the wheels in motion for a national response to a possible agroterrorism attack, including a tripling of USDA funding for counterterrorism requirements. While progress is being made, it is far too slow considering the safety of the American public is at stake. More must be done…with a greater sense of urgency. First, USDA and FDA must be given statutory authority to initiate food recalls, as well as have the authority to impose standardized security and surveillance requirements on the food processing industry to prevent deliberate food contamination.

Second, as the most vulnerable element of the farm-to-food continuum and having shown the least improvement since 9/11, the livestock industry requires immediate attention. Increasing the number of state and local veterinarians to serve as force multipliers for USDA in the prevention, identification, and treatment of exotic animal diseases is paramount. "The pool of adequately trained veterinarians in the US who are capable of recognizing and treating exotic livestock diseases is declining. This decline is largely attributed to the lack of educational support and career financial incentives for livestock epidemiology and treatment."[69]

Border and port of entry security and inspections must receive greater national priority, with increased manning levels as outlined in the Homeland Security Act. Finally, USDA's implementation of the National Animal Identification System (NAIS), "a program intended to identify animals and track them as they come into contact with, or commingle with, animals other than herdmates from their premises of origin,"[70] must be expedited.

In summary, nearly four years since the September 11 terrorist attacks, the agriculture industry remains a very vulnerable critical infrastructure. Emphasis on standardizing and streamlining food-supply and agricultural safety measures within the framework of a single, integrated strategy that cuts across the missions and capabilities of federal, state, and local agencies is crucial. The vulnerability of the agriculture industry becomes more exposed as time passes without credible systems in place to prevent a bioterrorist attack…a bioterrorist attack that could paralyze a $1 trillion dollar industry and cause an economic disaster similar to the attacks of September 11, 2001.

ESSAY #2: FOOD AS AN INSTRUMENT OF FOREIGN POLICY

Since the days of westward expansion, the Spanish American War, and the Monroe Doctrine, U.S. farm policy has sought to expand its markets and to maximize domestic competitiveness globally. Two trends permeate the four distinct periods[71] marking the policy's evolution. First, factors outside the farming sector often drove Government action and second, the domestic politics of agricultural special interests demanded Government intervention to underpin farming. Farm policy – born to foster a rural America and to mitigate the Great Depression market collapse – still dominates today, almost 80 years later.[72] However, agriculture today is less than 1% of GDP, not the near 10% of the 1930s. Farms have gone from almost seven million in 1930 to just over two today, with farm size tripling while farm residents went from 30% to just 2% of the U.S. population.[73] Farming today is not about rural America as much as it is about corporate America. Today agricultural conglomerates account for over 50% of sales, but only 3% of farms, while small farms account for 50%, but only 2% of sales. Technology has increased productivity six-fold and real net income per farm is up from $7,000 to over $19,000.[74] Consumers demand drive market and production decisions and globalization has led to a demand for alternatives domestic markets alone cannot provide. Agriculture is a global policy issue.

President George W. Bush told America and the world, "I intend to end barriers and tariffs everywhere so that the entire world trades in freedom. It is the fearful who build walls. It is the

confident who tear them down." He set forth a clear agenda – one that demonstrates an understanding of the linkages between trade and non-trade factors, between domestic policies and international diplomacy. The spreading of democracy throughout the world, as a key aim of the United States National Security Strategy requires the opening of foreign markets to U.S. trade. We seek access to markets, and the nations and cultures we hope to influence. No trade issue is more contentious and fundamental to virtually all countries and all peoples than agribusiness.

To support his agenda, President Bush proposed a budget which includes a 5% reduction in program payments with a limit of $250,000 (30% less than the current cap). He is taking on the hard issues like cotton, a mainstay of traditionally Republican regions. His proposal cuts $587 million in fiscal year 2006 and $5.74 billion over the next decade. "Many farmers oppose the cuts, but some small farmers applaud them."[75] Politics will be a factor with the $600 million cotton industry constituency – a consumer of one-fourth of all farm subsidies – and their powerful Congressional lobby.[76] "The great majority of the nation's 1.4 million farm subsidy recipients got checks averaging less than $2,000 each. But payments to the top five percent of big farm operatives averaged $91,000 – a whopping 45 times more than the little guys."[77] It is a bold and courageous move to overhaul farm policy, the first of its kind in over a decade – a compromise to facilitate the convergence of domestic and foreign policy interests.

In a second bold undertaking, the 2002 Farm Bill for the first time eliminated sugar subsidies. Sugar imports have declined by 80% since 1975, Central America being the biggest bill payer. Total loss of revenue to Third World countries is approximately $1B per year. In 1987, the income of sugar farmers was $300M, while the sugar subsidy program cost Americans $3B. The net result, as is the case with cotton, is a market distortion based on political considerations.

The President's actions were prompted in part by a recent WTO ruling in favor of Brazil and against the U.S. Brazil complained that U.S. farm policy provided U.S. cotton growers almost 52 cents to the pound, after subsidies, while the world market price was only 34 cents… and production continued to increase. Brazil charged that "U.S. farm policy depressed world cotton markets and created hardships for Brazilian farmers."[78]

This is likely only the first such case, with more to follow. Brazil has taken the lead in South America and for all underdeveloped countries to challenge the practices of the industrialized nations. More critically, Brazil is beginning to partner with China on trade and Chile is the first nation to begin negotiations on an FTA with China. China is becoming a looming threat in trade and politics within the Western Hemisphere. What's more, the WTO has pitted developed and developing countries against one another.[79] Developed countries with high productivity and high labor costs want developing countries to reduce or eliminate import tariffs, while the latter (who have a comparative advantage in cheap and bountiful labor) want the former to cut their subsidies and reduce trade barriers. To understand the magnitude, industrialized nations spend $1 billion per day on agricultural subsidies. On average U.S. farm support is one-fifth the value of total agricultural production. The E.U. is almost double that and Japan threefold. Average tariffs for developed countries are about 8%, while they are almost 21% for developing countries.[80] Furthermore, current agricultural trade tariffs and subsidies worldwide depress prices by about 12% and lower trade by 15%. If these were eliminated, it is estimated that U.S. exports alone would increase by 20% and imports by 9%. Purchasing power would grow by roughly $13 billion annually.[81]

Despite Brazil's triumph, developing countries fear that, just like the prejudicial agreements from the Uruguay Round of GATT, future WTO talks will simply be another attempt to tilt the trade balance in favor of the developed countries, further damaging their own domestic

economies. At the heart of the issue is a trade-off in agriculture and textiles in return for concessions regarding services, intellectual property, and health and safety. "Perhaps the best thing that the U.S. and other like-minded countries can do to strengthen the WTO is to simply set a good example… unilaterally reducing tariffs and other trade barriers is an obvious place to start…"[82]

Because our domestic market growth (tied to population growth) is declining, we need international markets. They have become our receptacle for excess production.[83] The World Bank estimates that the world's economy would yield an annual income growth of $290 to $520 billion dollars and that 144 million people will be lifted out of poverty by 2015 as a result of FTAs. More specifically, East Asia alone would see annual benefits of $300 billion, or 10% of their GDP, within a decade.[84]

Additionally, the UN estimates that there are over 850 million people in the world who are undernourished and require food assistance. The U.S. through its food program, best known as Public Law 480 (PL-480), has conduced the world's most generous food program over the past fifty years.[85] The U.S. is the world's leading provider of food aid to the UN's World Food Program (WFP), contributing between 50-60%, about $1.4B, of the WFP's budget, the world's biggest humanitarian food provider.[86]

Although the U.S. international food assistance program is grounded in humanitarian ideals -- helping those less fortunate than us -- it also provides economic benefits in the U.S. PL-480 programs boost the U.S. economy by creating major markets for agricultural goods and new markets for U.S. industrial exports and by providing hundreds of thousands of jobs to Americans. Approximately 80% of all international food aid funds are spent in the U.S. to purchase goods and services, benefiting almost every state in the nation directly and indirectly.[87]

The motives behind the U.S. food aid programs are laudable, as in the case of humanitarian efforts to address conditions for famine and malnutrition. We have averted massive starvation and severe malnutrition in several Africa and Asia countries. But our programs are not without their critics, generally related to three main areas: disincentive effects, misallocation of resources, and problems associated with the distribution of food aid. One of the major objectives of PL-480 is surplus disposal and our aid is directly linked to our surplus levels. U.S. competitors in the world grain trade have been critical of U.S. commodity disposal actions, claiming that the U.S. surplus production is often shifted onto the world market when least needed, putting additional downward pressure on already low or declining prices

U.S. domestic special interest groups are happy to avail themselves of such program in their insatiable search for markets and continue to lobby for a farm policy that has here and elsewhere compromised our foreign diplomacy. Farm policy no longer sustains a rural America policy, but is biased toward the big corporate farm structure. Subsidies cost American taxpayers money for the benefit of a few, while stifling economic development internationally. Ultimately, barriers to free trade bring into question our larger national security strategy and foreign policy interests of promoting freedom and democratization.

Americans – farmers, in particular – fear that we will lose our comparative advantage if we remove market barriers. Big business began a huge restructuring and consolidation during the 1980s. After some painful downsizing, we continue to have a burgeoning economy. The same must happen in agribusiness. Some crops may no longer be grown domestically, while others will – thanks to innovation and technology – compete successfully in the international marketplace without subsidy.

That said, some of the historical purposes of Farm Policy remain valid. To mitigate extreme market fluctuations, policies and regulations are needed as a safety net. Farm support may even be appropriate. Certainly, it makes great sense to use Government to partner with

farmers in research and education to leverage the productivity that comes from our innovation and technological comparative advantage.

The opening of markets, while improving our own standard of living, can ultimately achieve a higher standard internationally. We should continue to seek to expand markets and maximize domestic competitiveness. In the final analysis, domestic farm policy must be considered within the larger context of overarching U.S. foreign policy and economic objectives. If we are to promote democratization – a fundamental aim of U.S. National Security Strategy – our policy cannot be dominated by domestic special interests that benefit the few at the cost of the many domestically and internationally. Our fundamental philosophy is that borders are closed to us in other countries and that's what's critical to us.[88] Developed countries subsidize domestically, allowing for below market price dumping internationally, while developing countries impose large tariffs to bar our exports and protect their domestic production. It is a vicious circle. If we do not change our policies, where does it end?

ESSAY #3: INTERNATIONAL COMPETITIVENESS – LABOR

After decades as the world's largest farm exporter, the US agricultural sector is facing mounting challenges. Overseas, emerging farming giants such as Brazil and China are eating into America's business of supplying the world crops and commodities such as soybeans and apple juice. Meanwhile, American consumers are demanding a wide variety of foods year-round, grown and processed how they want them, and at prices that continue to fall with respect to total family income. Globalization has pressed US farmers to minimize costs by streamlining operations, with particular emphasis on minimizing labor costs. To compete with the low-wage labor force of Asia and Latin America, US American farmers have become increasingly reliant on illegal immigrants – an issue that has come under rising public scrutiny within the last several years.

<u>The agriculture workforce in America…an ever-changing landscape</u>

Since World War II, the number of US farms (once totaling near 7 million) and farm workers (once 13+ million) have declined significantly to 2.1 million and 3 million respectively.[89] Brought on by consolidation efficiencies, bio-technological advances, and better farming practices, this substantially reduced labor force is now capable of producing more affordable, abundant and healthy food than a labor force four times the size 50 years ago.

Coincident with the decline in the total number of farms and farm workers, the number of hired farm workers decreased steadily from 3.5 million in the early 1900's to 1.17 million today. Despite the decreasing demand for hired farm workers and steadily increasing wage rates[90] for this unskilled labor, US farmers have been unsuccessful in hiring enough Americans to do this dirty, difficult and often dull work…especially with unemployment at historic lows. As a result, the US agribusiness industry is increasingly reliant on illegal immigrants to fill the labor void. Current estimates are that between 50 and 60 percent of hired crop workers and food processors are in the US illegally. Illegal labor is far cheaper than the alternative: raising wages sufficiently to attract people who are in this country legally to do "work that that most Americans have grown out of."[91] Economists predict that raising wages in these low-skill jobs could potentially fuel inflation and stall economic growth.

More likely, however, raising wages would price many US agricultural products out of the market. Due to extraordinarily cheap land and labor, Russia, Brazil, Argentina, and China are emerging as powerful agricultural producers. Having improved their farming infrastructure and having gained access to US equipment and sophisticated biotechnology, these countries have eroded US agricultural dominance.[92] For decades one of the few US industries to run trade

surpluses (including a $13.7 billion surplus just four years ago), the agriculture industry recently ran its first deficit. Increasing labor prices sufficiently to entice Americans to fill farm jobs will only exacerbate the United States' declining competitive advantage. As a result, illegal farm workers have become an essential component to US agribusiness and are here to stay for the foreseeable future.

Illegal immigrant impacts

This burgeoning market for low-waged workers, where immigrant laborers can earn high wages (about $17,000 annually) compared with what they might earn in their native countries, has created a steady surge of illegal immigrants – growing at an estimated 500,000 per year. Of the estimated 35 million foreign-born people living in the US, over 30 percent (~ 11 million) are here illegally. While they account for just 3 percent of the nation's population, their number is growing rapidly and spreading far beyond border states.

Among the **positive** aspects of the immigrant labor influx:

Boon to business: Immigrants fill hundreds of thousands of low-wage jobs in the agribusiness industry (e.g. field workers and poultry processors), as well as in service industries (hotels and restaurants) and home construction.

Increased labor base to support the aging US population: Current US demographic projections show an increasingly aging population, with the ratio of workers to the supported elderly on a steady decline. Introducing tax-paying migrant workers to the equation not only improves the worker to supported ratio, but also increases the total labor base…an underlying prerequisite for any country's economic growth.

Inexpensive food on the American table: Content to pay the lowest prices for its agricultural products of any industrialized nation in the world, the US enjoys inexpensive food effectively subsidized by the poorest wage earners in America.[93]

Short-term influx to federal coffers. The federal government collects income payroll taxes from the 50-60 percent of illegal immigrants whose work businesses report. Since illegal immigrants rely on fake Social Security numbers, their payroll taxes pile up but are never repaid as benefits. The Economic Report of the President reported this mismatched fund contained $463 billion in 2002 – money that offsets other federal spending.[94]

Tremendous opportunity for workers from abroad. While dull, difficult and dirty, these same jobs pay illegal immigrants wages often unheard of in their homelands. They in turn not only put their hard-earned dollars back into the local economies where they work, but remit an estimated $30 billion annually back to their families in Latin America.[95]

On the **negative** side of the current construct:

Breakdown in the rule of law. There is clearly very little effort to thwart the inflow of migrant workers to agricultural jobs in America…illegality is status quo. When Congress made sweeping changes in immigration policies in 1986 and 1996, they did not seriously impede employers' ability to hire illegal aliens covertly and cheaply. While hiring illegal immigrants is illegal, employers satisfy their "legal obligation" as long as they see identification that "looks real." By the late 1990s, the Immigration and Naturalization Service, at the urging of Congress, had all but given up on interior enforcement. Deemed as an "acceptable oversight" for agriculture, this near complete disregard for the rule of law has the potential to spread to other aspects of American culture with much more dire consequences.

Threat to homeland security: This "wink and a nod" attitude toward illegal aliens offers an inroad to potential terrorist activity. Arizona, despite its harsh desert terrain, has become the gateway of choice for illegal immigrants. Deputy Homeland Security Secretary James Loy said in written testimony to the Senate Intelligence Committee in February that continuing

investigations, detentions and emerging threats "strongly suggest" al Qaeda has considered using this same Southwest border to infiltrate the US disguised as migrant workers.[96]

Financial burden to states and local communities: While the federal government sets immigration rules and collects billions of dollars in associated tax revenue annually, the greatest burden of supporting illegal immigrants rests with state and local governments. Responsible for funding the majority of increased educational requirements and health care for the uninsured, the financial outflows from state and local coffers severely offset, if not exceed, revenues generated by this cheap labor source. California alone spends approximately $7.7 billion per year educating illegal immigrants and their children, $1.4 billion annually on health care, and another $1.4 billion on illegal immigrants in prison.[97]

Suppressed wage structure: Although migrant workers fill the sorts of jobs that Americans will not work, some studies suggest that illegal immigration suppresses the wages of the least skilled Americans.[98]

Current and proposed legislation

A nationwide poll conducted in February 2005 suggests that the public is growing uneasy with what it sees as too many immigrants getting away with breaking the law. Combined with post 9/11 security concerns, continuing the status quo appears untenable. Current and proposed legislation, however, offer limited avenues to maintain this essential labor force while obviating some of the concerns.

Current legislation

The H-2A guest-worker program allows agricultural employers to hire foreign farm workers annually on temporary work visas. Basic tenets of this program require employers to provide H-2A workers free housing, mandatory workers' compensation, transportation reimbursement, and a "three quarter" minimum-work guarantee. Unfortunately, hampered by excessive paperwork and government oversight, the program is limited to only 42,000 workers.

Current law provides 675,000 visas a year for permanent residence; but of these, the vast majority are available for family members of American citizens and legal residents. Only 140,000 per year are employment based,[99] and with a variety of industries vying for cheap foreign labor, agribusiness' share falls well short of demand.

Proposed legislation – the "Guest Worker" program

To fill the remaining labor gap with "legal" employees, President Bush has proposed a new temporary worker program to match willing foreign workers with willing American employers. The program would offer legal status to the millions of undocumented men and women currently employed in the US and to those in foreign countries who seek to participate in the program and have job offers. The legal status granted would last for three years and be renewable. However, the program expects temporary workers to return home permanently to their home countries after their period of work in the US has expired, thereby relieving the US from supporting them in their later years of life. The government would issue all participants a temporary worker card allowing them to travel back and forth between their home and the US without fear of re-entry denial. Similar to the H-2A program, employers must first make a reasonable effort to find an American worker for the job, refrain from hiring undocumented aliens, and report any temporary workers they hire.

While many of the details of President Bush's proposed guest worker program remain sketchy, business, labor and even leading congressional Democrats like the idea. During the last Congress, House and Senate members introduced variations to his plan. The basic tenets were the same, with differences revolving around the length of the new visas (ranging from one to three years) and the total number of years allowable with renewals (ranging from three to six years).[100] Critics, however, counter that allowing guest workers to enter industries other than

agriculture would open nearly every job in America to competition from foreigners willing to work for lower wages and potentially inducing increased unemployment rates. Additionally, they question whether guest workers would leave when their visas expired, which is one of the major causes of illegal immigration today. Divisions make it unlikely that Congress will pass any significant immigration legislation this year.[101]

Recommended road ahead

It appears evident that if the US wishes to remain competitive in much of the agribusiness industry, low-wage foreign-born labor is a necessity. However, our existing immigration policies enable negative externalities that even threaten national security. While many may advocate border enforcement as the cure-all answer, US borders are far too expansive to make this an economically feasible solution. Instead, the following proposal presents a viable solution:

Adopt President Bush's guest worker program: In particular, create guest worker visas for foreign workers to fill full-time jobs in the US for three years, with a single, three-year extension allowable. Basically, this should amount to privatizing the H-2A program, with industry accessing foreign workers given a more simplified rule set and minimal "in series" agency processes.

Avoid amnesty: Instead, allow only those illegal aliens who pay a fine and document recent work performance (e.g. 100 days in the past 18 months) to enter the guest worker program.

Toughen employer sanctions: As long as employers willingly hire undocumented workers, immigration will not decrease. Seeking out and penalizing employers who hire illegal immigrants is vital to stemming the flow.

Conclusion

Blessed with abundant land, clean water, and incredible intellectual capital, the US can compete in agriculture with any country in the world on a level playing field. However, a fresh approach to the balance between the economy and national security is in order. The US must use technology, industry, and a cooperative approach to filter out bad apples while letting in willing workers who are motivated to contribute to the Nation's future.

CONCLUSION

Agribusiness, as a whole, is here to stay. That is the one constant in this dynamic environment – people will always need food. Even with this simple certainty, there are absolutely no guarantees for the individual businessman. During our travels as an industry study group we have met numerous producers and processors who continue to persevere in an industry that requires tremendous capital assets, involves great uncertainty, and yields narrow profits. For the outsider, it is not always immediately evident what motivates them to continue in this business. It certainly is not wealth, easy living, security or glory. At last, this leads us to the final conclusion of our study of the agribusiness industry – the heart of American agribusiness is the American farmer. Year after year, generation after generation, these men and women devote their lives to a profession that rewards them in ways that only they can truly understand. Yet, even if the rest of us may not fully understand what motivates them, their dedication is plain to see.

Time and time again the individuals we met expressed their gratitude to the members of this industry study group for their service and devotion in defending America and the world. To all those who toil anonymously to put food on our table, we wish to declare our heartfelt thanks to those great Americans, known collectively as the American Farmer.

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