Farming, Finance, and the Global Marketplace

JUNE 8-9, 2010

A Symposium Sponsored by
The Federal Reserve Bank of Kansas City

Kansas City, Missouri
June 8-9, 2010

Session 4:
Meeting the Financial Needs of Global Agriculture

Meeting the Financial Needs of Global Agriculture

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The vast majority of future agricultural supply and demand growth will occur outside of the U.S.. Whether they actively participate in it or not, U.S. agricultural producers and agribusinesses will be shaped by this emerging trend. This will increase U.S. agricultural finance's exposure to foreign markets directly and indirectly.

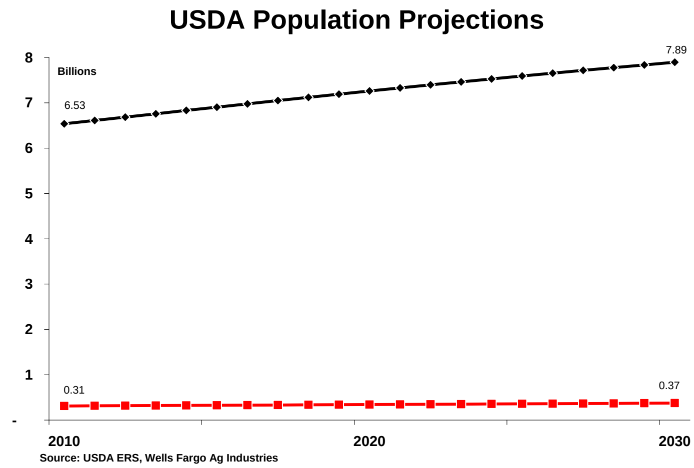
This paper discusses how the financing needs of global agriculture will be met. First, this paper highlights the differential in expected growth between the U.S. and global agricultural markets. Second, it examines the risks and issues that will accompany these developments. Third, the current forms of financing overseas agricultural exports and productions will be covered. Lastly, it will look at the impact of foreign agricultural investment's impact on the U.S. both directly and indirectly. Many of these changes are not new, but the rate of change will accelerate in the next decade. Agricultural companies and their financial partners that do not strategically plan for these opportunities and risks will find themselves severely disadvantaged to those companies that do.

This paper can only start to outline the issues and their related challenges. Financial institutions in conjunction with their regulators will need to formulate the necessary strategies and tactics to solve those challenges. Additionally, it does not require the power of an oracle to predict that some of the agribusiness ventures will fail given volatile, complex and changing global financial markets. Hopefully, this paper will serve to advance the understanding of the risks and rewards in financing an increasingly globalized agricultural market place.

Where the Growth Will Be:

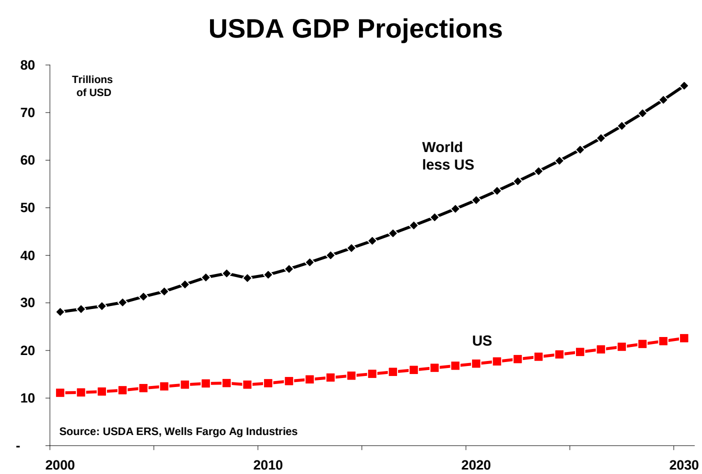
It is a mistake to believe that the U.S. is anything other than the premier agricultural market in the world. The U.S. is the third largest country by population in the world with an estimated 307 million residents in 2009. It has the largest gross domestic product (GDP) in the world at $13.2 trillion in the 4th quarter of 2009. It has the highest population growth rate of any large and developed country at 0.98 percent annually. And, this population growth rate is projected to remain elevated at 0.87 percent through 2030 adding 66 million new consumers (Chart 1). These consumers will be the highest per capita income consumers in the world. All in all, there is no better agricultural market than the U.S. in the world, but even so the future of agricultural growth lies outside the U.S..

Chart 1



While the U.S. is expected to add 66 million new consumers between 2009 and 2030, the world outside the U.S. is expected to add 1.4 billion customers (21 customers globally for every one in the U.S.). The U.S.'s projected GDP growth of 2.8 percent from 2010 to 2030 remains remarkably high. The U.S. should add about $10 trillion in economic activity, but during the same time period the world outside the U.S. should grow by $40 trillion in economic activity (Chart 2).

Chart 2



The impact of the economic growth on agriculture will be very disproportionate. As poorer countries add economic activity, a very large percentage of it goes directly to new food consumption. But in the U.S., very little additional income will be used for new food consumption. In fact, the calculated food and beverage income elasticity of the U.S. is the lowest in the world at .103 (a 1 percent increase in income leads to .103 percent increase in food and beverage spending).[1] And, much of the new "food" spending in the U.S. actually goes to dining outside the home which consists primarily of labor and capital costs. Even "in home" food spending in the U.S. is driven by packaging, advertising and convenience. In contrast, Indonesia has calculated income elasticity for food of .686 (a one percent increase in income leads to a .686 percent increase in food and beverage spending). Given the state of economic development in Indonesia, most new food spending will be on increased quantities of food and better varieties. The average calculated income elasticity of food outside the U.S. is 0.57. The projected global GDP expansion implies a tremendous opportunity for agriculture and agribusinesses.

The impact of GDP and population change has already had an enormous impact on agricultural demand and business opportunities. Table 1 shows the major protein categories and the estimated demand changes. From 2000 to 2010, the U.S. saw a 2 million ton increase in domestic protein consumption (beef, pork, broilers and turkey) with almost all of it coming from increased broiler consumption. At the same time, global demand, net of the U.S., saw a 39 million ton increase in protein consumption. This 20 to 1 ratio will probably continue to widen going forward given the differentials in population and economic growth combined with the relative saturation of food demand in the U.S. relative to the rest of the world.

Table 1: World Protein Consumption

Commodity	Country	2000 (Thousand metric tons)	2010 (Thousand metric tons)	Percent change (2000 to 2010)	Quantity Change (Thousand metric tons)
Beef and Veal	U.S.	12,502	12,080	-3.4%	-422
Swine	U.S.	8,454	8,548	-1.1%	94
Broiler	U.S.	11,474	13,661	-19.1%	2,187
Turkey	U.S.	2,223	2,381	-7.1%	158
Beef and Veal	World net U.S.	40,825	44,065	7.9%	3,240
Swine	World net U.S.	76,415	93,600	22.5%	17,185
Broiler	World net U.S.	41,182	59,699	45.0%	18,517
Turkey	World net U.S.	2,570	2,667	3.8%	97

Source: USDA, Foreign Agricultural Service

Clearly, the global opportunities dwarf the U.S. domestic market as the foreign government/private enterprises race to supply greater amounts of protein and specialty foods to the enormous global population. In the U.S., every small percentage of market-share is fiercely contested with very limited opportunities for higher rates of returns. In the U.S. domestic market,

[1] Income elasticity data for global food consumption were obtained from the U.S. Dept. of Agriculture, Economic Research Service.

to take out an established competitor a company needs to overcome both the differential in variable cost and the embedded fixed cost that keeps their competitor in the market. Many agricultural industries have very limited usage for their fixed assets outside of their specialized purposes. This high "barrier to exit" forces firms to fight to the point where the assets have become obsolete or simply of so little value that the fixed cost no longer justifies staying in the market. This oversupply of capital investment in the U.S. clearly limits returns on investment. An extensive sampling of food industry returns shows that most agribusinesses operate with a 3 percent net profit before tax and a 4 percent return on assets.

In the developing foreign markets, much of the growth is coming from the creation of large-scale specialized producers replacing small-scale general producers. U.S. style confined animal operations, while unloved by certain environmental groups, are extremely productive in terms of supplying high quality, low cost proteins. In fact, many developing countries need to develop consistent and reliable suppliers of proteins to justify the development of the additional links in a food supply that delivers high quality food. High-quality processing and refrigeration are vital to supply meats and dairy products with low bacterial counts and good flavor. However, it is difficult to invest large amounts of capital (even in a situation like China) if there is a fragmented and unreliable supply situation.

The efficiencies of the supply chain overwhelmingly favor collecting milk from one 5,000 cow dairy run by highly skilled managers than from 1,000 farmers milking 5 cows each with limited technical training. Additionally, the large dairy farm can invest in on-farm cooling and sanitary handling that the smaller producer cannot afford. These logistical advantages are true for every protein source. Another issue that drives this increase in the size of the producers is the control of pollution and other environmental impacts. While the individual 5 cow milk producers might seem to be low impact, their cows produce much more manure per pound of milk than the large scale modern facility. Typically, the small agricultural producer also has much lower standards of controlling manure runoff, but with the cows so spread out it doesn't strike the casual observer as such. It is ironic that countries such as China are actively promoting the increased scale of agriculture while some advocates in developed economies are promoting the exact opposite.

This intensified knowledge approach to agribusinesses is where many U.S. agribusinesses have critical control of genetics, R&D and proprietary knowledge. It is these inputs that the foreign agribusinesses and producers are looking to attract in joint partnerships or foreign direct investment. Additionally, in many developing markets cost of capital is a major hurdle for development. Outside of China, the cost of long-term debt in many countries in South America can easily surpass 20 percent even for very strong agribusinesses. China is a very different story. The Chinese banking system uses bank loans as a form of joint public-private social development. It is very difficult to calculate the real cost of capital given the decision-making process that controls it. If an organization does not worry about profits, why would it worry about relative rates of return on its alternative investments?

The two primary methods for U.S. agricultural and agribusiness firms to participate in this demand expansion are direct export and overseas production. Direct export is the simplest to implement, and it is the one that most U.S. agricultural finance firms are comfortable with for risk management. The U.S. will remain one of the premier agricultural exporters in the world given its comparative and competitive advantages in agriculture. However, both U.S. agricultural producers and agribusinesses are increasing their overseas production. They rely on direct investment and joint partnerships to tap the global demand growth. These relationships are much more complicated than a simple export of goods. In some cases, the U.S. firm brings the capital and expertise to produce goods and services in these developing agricultural markets. In others, the U.S. firm primarily supplies expertise in terms of R&D or management practices. It is this overseas-based production that will challenge U.S. financial firms. These arrangements will be more complex and subject to risk than an export transaction.

What Are the Risks?

The risks in lending to overseas agricultural businesses are the same as lending to domestic plus some additional risks. Lending to domestic agricultural production and agribusinesses encompasses the challenges of volatile input and output prices, weather, government policy, trade disputes, competitive change and management problems. Overseas based lending has all these and adds even more. Even something as simple as language can be a major risk. Although many participants speak English as a business language, it isn't always the case that documents will be provided in English. Overseas lending requires financial institutions to understand additional legal environments and political risks. Collecting on collateral in a foreign country can quickly become problematic. Convincing a foreign court that a U.S. financial institution is entitled to the collateral over the interests of a national entity can be highly challenging in many countries. Additionally, currency volatility can be a major risk when the assets in a foreign country earn in that country's currency, but they need to repay debt in U.S. dollars.

These risks are both a problem and opportunity for commercial banking. Agricultural financing companies that help solve these problems can expect excellent fee based income in addition to loan income. In the U.S., there are many agricultural companies with adequate management for commodity production or processing in the domestic market, but whether they are up to the challenge of dealing with overseas management is an open question. The large multinationals such as Cargill, Bunge and ADM have built up their business overseas for decades, and they have developed their staffing and expertise to deal with the issues. It is very easy to see deals that looked certain come apart from hidden agendas that American agribusinesses do not understand as well as their foreign counterparts.

One of the major problems that U.S. commercial banks have with these foreign relationships is the accounting and asset valuations. In countries such as China and Brazil (the two most important agricultural growth markets), accounting rules might be clear and concise, but the implementation and practice can be very different and misrepresentative. It is a difficult balancing act between being too naïve and too cynical. An overly naïve approach would say that the “audited” results from China or Brazil are equally valid as audited results from the U.S. or Europe. The overly cynical approach would say that the audited results have no validity at all. The messy truth lies somewhere in between. Additionally, given the lassitude and uneven application of legal rights in developing markets, legal claims on assets have a greater risk as well.

How should a U.S. financial firm start to develop a framework for evaluating overseas lending risk? It can start by consulting a wide variety of rating agencies and governmental assessments. There are a large number of economic consulting groups that prepare ongoing country reports that track economic and political risks. Both the rating agencies and consulting groups charge significant fees for their reports, but it should be considered an ongoing cost of business to be covered by the loans being made. Likewise, the USDA Foreign Agricultural Service (FAS) has mandated country risk rating associated with its support of U.S. agricultural exports. The country ratings and risk premiums are published on their website. The results are public, but their methodology and working notes are not. The appendix contains their current country risk ratings and risk premiums as of May 2010.

Lastly, if U.S. financial firms are going to finance overseas investments for their domestic customers, they need to develop the attitude of “going to see for themselves.” Being physically present in the foreign market is crucial for having positive results. The domestic agribusinesses and producers seeking financing will need to have a strong plan and execution for representing their financial interests on constant basis. Too many U.S. farmers have failed in their overseas farming ventures due to a lack of physical and reliable representation. Just as domestic collateral audits and operational inspection visits are crucial to understanding clients and preventing fraud, these types of interactions are even more important in overseas financing. U.S. financial companies should not underestimate the cost and stress of these foreign visits. There is very little glamour to checking cattle pens in Nebraska and even less in the interior of Paraguay.

How Will Growth be Financed?

The problem for U.S. agricultural companies and the banks that finance them is not a lack of opportunity. Rather, it is how to expand into these markets while maintaining the right risk/reward balance with the firm. Traditionally, many U.S. agribusinesses have been content to export their U.S. based production to the next best global buyer. Historically, even this limited approach was left to the giant agribusinesses such as Cargill, ADM and Bunge among others. Smaller firms didn’t have the staffing and expertise to tap the foreign markets directly. Over the last decade, many smaller firms, especially those with specialty products, have developed their own export operations to tap into the rapidly growing global market. Even though they work with many of the same foreign companies on a repeated basis, they still approached the business as transactional. They typically looked to their financing banks for letters of credit and foreign currency transactions (including hedges). They also turn to the USDA for guarantees to take out a large amount of the transaction risk.

The U.S. government views agricultural exports as a key support mechanism for U.S. agricultural producers. The Congress has directed the USDA through a variety of agencies to help promote U.S. agricultural exports. The USDA runs trade missions to help showcase U.S. agricultural products. It also has a number of credit risk programs to help U.S. agricultural exporters and their financing banks. The primary idea was that by pooling risk through a government-financed risk program more exports could be made.

Using the federal government's resources as a backstop, the USDA has been able to pool risk through a series of programs; GSM-102, GSM-103, SCGP and the Facility Guarantee Program (FGP). The USDA assumes the bulk of the risk in these programs, but they rely on letters of credit with their discrete transactional nature. This limits the number of factors involved, lowering the risk of the unknowns. Even the FGP is transactional in nature even though it involves term financing for facilities in foreign countries. The program provides payment guarantees to finance commercial exports of U.S. manufactured goods and services that will be used to improve agriculture-related facilities.

Outside of the USDA, another major program for financing agricultural production overseas comes from the Overseas Private Investment Corporation (OPIC). This is a U.S. government-sponsored entity (see the appendix for the OPIC's mission statement). The OPIC program serves non-transactional needs. In a particular example, the OPIC program allowed a company to expand agricultural production in Chile using the Chilean assets as collateral. The expansion faced all the classic problems of encumbering its U.S. assets to obtain U.S. financing of these Chilean assets. Even though Chile has a low risk for country risk rating at 1 (0 being the lowest with 6 being the highest), using collateral in the country was restrictive. Chilean rates of financing exceed 20 percent on an annual basis for in-country financing even for a very strong borrower. All of this simply illustrates the difficulty of expanding operations in a low-risk country that has a free trade agreement already in place with U.S..

The OPIC program helps overcome these barriers by using a governmental risk-sharing approach. OPIC offers a variety of loan structures; corporate finance loans, project finance loans and hybrid loans structures. However, the OPIC program does not come without its own set of challenges. Involvement with a government sponsored entity comes with the goals of the government being considered. OPIC states "OPIC promotes U.S. best practices by requiring projects to adhere to international standards on the environment and worker and human rights." This requirement could potentially require companies to incur a higher operating cost standard than their in-country domestic competitors. To the degree that it does raise the relative costs, the advantage in financing costs would need to be considered as an offset.

The OPIC articles of incorporation have special language concerning job losses in the U.S. and investment in China. OPIC is prohibited from financing projects that essentially transfer U.S. jobs overseas. The companies must show that the jobs created are incremental. Financing to

China has its own set of criteria to meet. This shows the political sensitivity of the lawmakers in providing this financing arrangement. No one wants to be known as promoting overseas jobs ahead of the U.S. or helping China more than the U.S.. These considerations are important to the political process that helps fund OPIC. Even so, OPIC financing can be a very attractive option for companies looking to expand incrementally in foreign countries, but they do not have sufficient free net worth to guarantee the facilities in their domestic operations.

What about Foreign Agricultural Financing in the U.S.?

It is also important to consider the impact of foreign investment and financing on agricultural producers and agribusinesses in the U.S.. This influence comes in both direct and indirect forms. Directly, many leading global financial firms see the U.S. as an excellent growth market. Even with the competitive agricultural lending environment in the U.S., there appears to be more incremental growth and market consolidation in the U.S. than in the EU, Australia and Japan. There are a number of strong foreign banks with a pronounced agricultural focus that entered the U.S. market. Rabobank (headquartered in the Netherlands) has been the U.S. for a long period of time, and it has a particular emphasis on agriculture. Another, Bank of the West (owned by Paribas of France) has made a significant effort to gain market share in the agricultural production and agribusiness. And, Great Western Bank (owned by National Australian Bank Ltd) has also made a significant investment in the U.S. with focus on agriculture. This is certainly not a comprehensive list of foreign banks with a strong U.S. presence and focus on agriculture, but it illustrates some of the participants.

Why would these banks enter the U.S. agricultural market with its low interest rate spreads and highly competitive agricultural finance sector? They entered the U.S. market because their home markets are even more limited in terms of growth. The EU's projected population annual growth rate is expected to be -0.04 percent by 2020 according to the USDA's estimates. In contrast, Australia has better outlook for domestic population growth at 0.98 percent (roughly equal to the U.S.'s), but its current population of 21.5 million and limited water and arable land are constraining factors. Additionally, many of these markets have already seen considerable consolidation in banking numbers and specialization. This further constrains their ability to grow in the home markets. In contrast, the highly fragmented U.S. market with its $238 billion in agricultural production loans appears inviting.

One effect of their entry into the U.S. agricultural finance market has been to make a competitive market even more competitive. Well-capitalized entrants into markets need to overcome entrenched lending relationships. Particularly, in the middle markets, banking relationships are centered on personal relationships. Advertising has very little impact on creating opportunities to form new relationships. Instead, banks entering new markets look to hire established bankers with large and successful portfolios in a particular market or segment. Typically, the strategy requires the newly hired bankers to wait out a "non-compete" period before they revisit their previous relationships. During this period, the banker works on prospecting new customers. And, the new banks offer to participate in multibank deals. They are willing to take a non-agent role simply supplying money to get to know the potential customers. The newly arrived banks need to offer lower rates or more aggressive structures to demonstrate value to prospective customers.

The existing banks react to the new arrivals by strategically matching their offers to retain certain customers. Over a period of time, the market will shuffle agricultural producers and agribusiness between the established banks and new entrants. This leaves the overall size of the market little unchanged, but it typically has lowered interest rate spreads and weakened loan structure. Clearly, this development benefits the individual borrowers, but it has negative secondary impact on the industry. The recent financial stress in the livestock industry is the result of many factors and timing. One factor that should be reexamined is the loan structures and the rate spreads.

The recent stress in the dairy industry primarily involves the volatility of milk and feed prices, but the over expansion of supply and over leveraging of the operations involve the competitiveness of the agricultural finance sector. From the late 1990s to 2009, established domestic commercial banks, the Farm Credit System and newly arrived international agricultural finance focused banks fought aggressively for market share in the large dairy producer sector. As is typical, the battle for market share progressively lowered interest rate spreads and increased allowed leverage. By 2008, the agricultural finance sector was offering dairy producers essentially AAA credit spreads and very aggressive leverage rates. These loans were being made to individuals who in many cases had rudimentary accounting and risk management practices. The industry arrived at this state through very small incremental changes that were relentlessly in favor of the dairy producer over almost a decade.

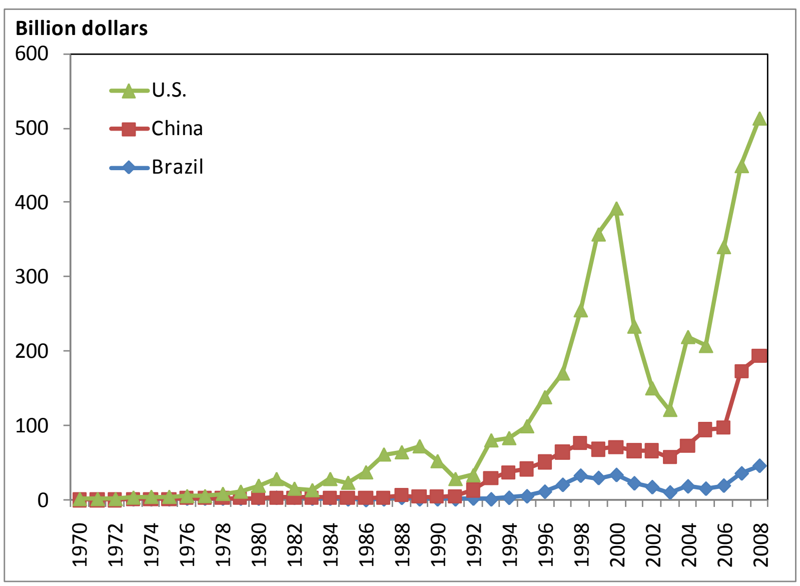
A clear example of overly aggressive structure was the asset value of heifers and feed stocks. From 2000 to 2009, the average value of cull dairy cows was $550 (1,200 lbs. at $45 per hundredweight). By the late 2000s, collateral values for heifers ranged from $1,200 to $2,000. The argument was that the cost of buying the heifers averaged $1,600 during the same time period. While it was demonstrably true that dairymen bought the heifers for these prices, it was not true they would have those values in a distressed situation. During the industry stress period of 2009 and 2010, the dairy financing industry found themselves with technically insolvent operations with asset values that did not correspond to reasonable liquidation values. This situation helped impede the orderly reduction in excess supply. Whether the domestic agricultural finance sector would have arrived at the same situation without the pressure from new foreign entrants is debatable. Alternative history theories and econometrics will not provide an answer, but it is quite likely that they played a part in the situation.

The indirect effects of global financing also impact the U.S. agricultural finance system. Agricultural production and agribusinesses are often extremely capital intensive. One long-term advantage favoring U.S. producers and agribusinesses was their relatively low cost of capital. The other global competitors with similar cost of capital advantages were the EU, Canada and

Australia. Competitors in countries such as Brazil and Argentina might have low cost labor and land, but they have high financing costs that limited expansion. Historically, China was an inwardly focused agricultural market with limited capital availability. Clearly, things have changed in a significant manner.

Over the last 5 years, companies such as JBS SA of Brazil has taken advantage of a surging Brazilian stock market, a weak U.S. dollar and investor confidence to raise sufficient funds to buy major U.S. agribusinesses such as Swift (May 2007) and Pilgrims Pride (September 2009). While this is just one company with a unique strategy, it illustrates the dramatic change in the global financial system. While U.S. companies continue to make investments in key markets such as China and Brazil, foreign companies are making large investments in the U.S.. Obviously, these investments are spread out into all the sectors, but agriculture and agribusiness are targeted as well. This foreign direct investment is often influenced by financial institutions from the foreign investors' home market. The impact of these interactions is difficult to calibrate, but they nonetheless have a role in agricultural finance in the U.S..

Chart 3: Foreign Direct Investment, net inflows



Source: World Bank

The last element to consider is the changing global cost of capital and the impact of the differentials. While the U.S. is the premier agricultural market, China is the most influential in terms of future growth. The Chinese banking system has unique characteristics that make it very distinct from "market-based" systems. Capital allocation via bank loans in China is not made independently from the government's goals and influence. Any review of the literature covering the Chinese banking system makes clear the tangled nature of the ownership and standards. In 1999, to resolve non-performing loan (NPL) issues, the Chinese government created special financing companies called Asset Management Corporations (AMCs). This financial development "improved" the Chinese commercial bank balance sheets by removing the NPLs.

However, the NPLs typically involved state-owned enterprises which were in turn financed by state-owned banks which in turn were helped by state-owned AMCs which were in turn financed by the Central Bank of China which is by definition state-owned.

The only thing that is clear about the Chinese banking system is that nothing is clear. What does this have to do with agricultural finance in the United States and around the globe? If you are going to compete in a capital intensive commodity production business with a firm that can access funds for almost free with very little incentive to produce profits, you might want to reconsider your own future strategy and profitability. Often, it appears that the Chinese state-influenced agricultural system prioritizes employment and output ahead of profitability. This makes competition with them problematic for businesses that need to worry about cash flow and repaying loans.

One clear example of this capital cost factor impacting agriculture comes from the crop chemical market. Glyphosate is one of the most important weed control chemicals in the world. Its price has plunged as it has come off patent, and Chinese firms with state financing have built enormous production capacity. This downward plunge in glyphosphate prices has impacted us. manufacturers, wholesalers, retailers and agricultural producers. Inventory valuations and business plans have been significantly impacted which in turn influence lending arrangements made in the U.S.. This is just one simple example where Chinese growth in a commodity, in part due to their capital costs, has impacted the U.S. agricultural finance system. There are many others with their own unique details but similar dynamics. How this dynamic will continue to play is impossible to predict, but it is a major consideration going forward in the agricultural finance system.

Conclusion

The outlook for U.S. and global agricultural finance is very positive. Population and economic growth will primarily occur outside developed economies. The developing countries will generate enormous demand growth both for more food and higher quality food. While the trend outlook for food production and its financing is positive, the volatility and complexity will also challenge domestic and global agricultural finance firms to properly assess and manage risk. Efficient markets are not markets that do not suffer business failures. Rather, they are markets where the consequences of those business failures proportionately impact the participants who took the risk in anticipation of the rewards. This efficiency is difficult to achieve due to competitive market pressures and government policies.

U.S. agricultural producers, agribusinesses and their financial partners can be influenced in any number of ways from developments outside of the U.S.. Exports, which are major demand component of the U.S. agricultural system, can be influenced by both country and bank risk from global partners. The USDA has made a significant effort to help share risk through a number of government programs. These tools have been primarily transactional in nature. Additionally, U.S. agricultural producers and agribusinesses continue to expand their foreign direct investment in agriculture. These investments are more structural in nature, and they require more complex arrangements. Once again, the U.S. government has provided assistance through the Overseas Private Investment Corporation to help U.S. companies expand globally. At the same time, foreign direct investment in the U.S. continues to grow, and the foreign financial institutions have made their presence felt through competition for the U.S. market and its customers.

Lastly, the cost of capital and capital allocation decisions can impact commodity markets in a very profound manner. It is a mistake to view agricultural commodities as “simple” products. In the case of agricultural commodities, they involve fantastically brilliant “embedded” technologies. The embedded technologies involve genetics, mechanization, automation, chemical, managerial and financial transactions that are astonishingly complex. All of these complex embedded technologies involve capital (human or financial) of one sort or another. All these “commodities” get moved around the global, and the embedded capital moves with them. Without a doubt, China’s role in global commodity movements will only grow. The size and complexity of the Chinese competitors will continue to grow. No commodity market or financing arrangement is completely immune to the decisions made by those companies and the Chinese government. All in all, the global agricultural finance markets will only become more complex and competitive in the future.

Appendix

The following comparison guide created by the Foreign Agricultural Service of the USDA highlights the different programs.

A Quick Comparison of USDA's Export Credit Program

GSM-102	GSM-103	SCGP
The GSM-102 Export Credit Guarantee Pro-gram guarantees credit extended by U.S. banks to approved foreign banks.	The GSM-103 Intermediate Export Credit Guarantee Program guarantees credit ex-tended by U.S. banks to approved foreign banks.	The Supplier Credit Guarantee Program guarantees short-term credit extended by U.S. exporters directly to their overseas customers.
Terms: Up to 3 years	**Terms:** 3 to 10 years	**Terms:** Up to 180 days*
Financing Instrument: U.S. dollar-denominated letter of credit	**Financing Instrument:** U.S. dollar-denominated letter of credit	**Financing Instrument:** Importer's promissory note
Coverage: 98% of principal and some interest	**Coverage:** 98% of principal and some interest	**Coverage:** 65% of principal and interest
Application: Most U.S. agricultural products	**Application:** U.S. livestock and genetics; occasionally used for bulk grains for specific countries	**Application:** Most U.S. agricultural products

*The 2002 farm law authorizes appropriations to cover repayment of credit up to 360 days. USDA will implement this change in individual markets on a case-by-case basis.

Source: USDA, Foreign Agricultural Service (FAS)

Facility Guarantee Program (USDA's fact sheet)

The U.S. Department of Agriculture's Facility Guarantee Program (FGP) is designed to expand sales of U.S. agricultural products to emerging markets where inadequate storage, processing, or handling capacity limit trade potential. The program provides payment guarantees to finance commercial exports of U.S. manufactured goods and services that will be used to improve agriculture-related facilities.

Emerging markets often lack the infrastructure to support increased trade volume. Export sales of U.S. equipment or expertise to improve ports, loading and unloading capacity, refrigerated storage, warehouse and distribution systems, and other related facilities may qualify for facility guarantees, as long as these improvements are expected to increase opportunities for U.S. agricultural exports.

Under this program, USDA's Commodity Credit Corporation (CCC) guarantees payments due from approved foreign banks to exporters or financial institutions in the United States. USDA's Foreign Agricultural Service (FAS) administers this program on behalf of the CCC. The financing must be obtained through normal commercial sources. Typically, a guarantee covers 95 percent of principal and a portion of interest. FGP regulations are found in the Code of Federal Regulations 7 CFR 1493.

Qualified Projects The Secretary of Agriculture must determine that the project will primarily promote the export of U.S. agricultural commodities or products to emerging markets.

Emerging Market An emerging market is a country that the Secretary of Agriculture determines: (1) is taking steps toward a market-oriented economy through the food, agricultural, or rural business sectors; and (2) has the potential to provide a viable and significant market for U.S. agricultural products.

U.S. Content Only U.S. goods and services are eligible under the program. The CCC will consider projects only where the combined value of the foreign components in U.S. goods and services approved by the CCC represents less than 50 percent of the eligible sales transaction.

Initial Payment An initial payment representing at least 15 percent of the value of the sales transaction must be provided by the importer to the exporter.

Payment Terms Payment terms may range from 1 to 10 years, with semi-annual installments on principal and interest. The applicable program announcement will specify actual payment terms.

Payment Mechanism Payment must be made to the exporter in U.S. dollars on deferred payment terms under an irrevocable foreign bank letter of credit.

Coverage The CCC determines the rate of coverage (currently 95 percent) that will apply to the value of the transaction, excluding the minimum 15-percent initial payment. The CCC also covers a portion of interest on a variable rate basis. The CCC agrees to pay exporters or their assignee financial institutions in the event a foreign bank fails to make payment pursuant to the terms of the letter of credit. The FGP does not cover the risk of defaults on credits or loans extended by foreign banks to importers or owners of facilities.

The OPIC states its mission as follows;

“OPIC Financing provides medium- to long-term funding through direct loans and loan guaranties to eligible investment projects in developing countries and emerging markets. By complementing the private sector, OPIC can provide financing in countries where conventional financial institutions often are reluctant or unable to lend on such a basis.

Business Categories

OPIC's **Small- and Medium-Enterprise Financing** is available for businesses with annual revenues under $250 million.

OPIC's **Structured Financing** focuses on U.S. businesses with annual revenues over $250 million and supports large-scale projects that require large amounts of capital, such as infrastructure, telecommunications, power, water, housing, airports, hotels, high-tech, financial services, and natural resource extraction industries. OPIC can also provide long-term working capital and multiple-year capital expenditure programs. The amount of capital needed for any project can be greater than one financial institution can provide on its own due to per-project limits or diversifications guidelines. As a result, OPIC works with other co-lenders, if necessary, to bring sufficient resources to a given project."

GSM-102 (Premium per US $100 of coverage) - Annual Payment of Principal

Tenor	Risk Category						
	0	1	2	3	4	5	6
9 Months[1]	$0.25	$0.28	$0.31	$0.36	$0.43	$0.51	$0.62
12 Months[2]	$0.30	$0.34	$0.38	$0.44	$0.52	$0.63	$0.75
15 Months[3]	$0.32	$0.36	$0.40	$0.46	$0.54	$0.66	$0.79
18 Months[4]	$0.37	$0.40	$0.45	$0.52	$0.60	$0.72	$0.86
24 Months[5]	$0.51	$0.53	$0.58	$0.66	$0.77	$0.91	$1.08
30 Months[6]	$0.58	$0.61	$0.67	$0.76	$0.87	$1.03	$1.21
36 Months[7]	$0.70	$0.73	$0.80	$0.90	$1.03	$1.20	$1.40

	Country	Country Risk Category	Maximum Allowable Tenor
	Albania	5	1.5 years (18 months)
	Algeria	6	1 year (12 months)
	Anguilla	3	2.5 years (30 months)
	Antigua and	4	2 years (24 months)
	Aruba	3	2.5 years (30 months)
	Bahamas	1	2.5 years (30 months)
	Bahrain	1	2.5 years (30 months)
	Barbados	2	2.5 years (30 months)
	Belize	6	1 year (12 months)
	Botswana	2	2.5 years (30 months)
	British Virgin	2	2.5 years (30 months)
	Bulgaria	4	2 years (24 months)
	Burkina Faso	6	1 year (12 months)
	Cameroon	6	1 year (12 months)
	Cape Verde	5	1.5 years (18 months)
	Cayman	0	2.5 years (30 months)
	Chile	1	2.5 years (30 months)
	China	5	1.5 years (18 months)
	Colombia	3	2.5 years (30 months)
	Costa Rica	3	2.5 years (30 months)

References

Kroeber, Arthur. "China's NPLs: Another Financial Time-Bomb?" October 6, 2009. http://blogs.ft.com/dragonbeat/2009/10/06/chinas-npls-another-financial-time-bomb/

Industry Panelist

Transcript

C. G. (Kelly) Holthus
President and Chief Executive Officer
Cornerstone Bank, York, NE

Thank you for the opportunity to speak at this important symposium. I will try to address two questions – they are as follows:

How do I see Cornerstone Bank, a rural bank in east central Nebraska, as a part of the "Golden Era" in U. S. Agriculture? The second question is how does global demand affect our bank and our customers?

To start with, I will give you a little background on Cornerstone Bank – We have total assets of $900 million of which approximately $600 million are in loans. Of the total loans, 42 percent are in ag-related production and real estate loans. An additional $200 million are in commercial loans and, in our area, are primarily tied to agriculture. We have a service area of 11 rural counties with a total population of 150,000 people. I asked our Ag Department for information concerning our customer base and they told me the average age of our ag customer is 54 years. They also stated that the average customer has about $250,000 borrowed from our bank at any given time.

At our bank our core depositors supply the funds we need to take care of our agricultural customers. At the present time our loan-to-deposit ratio is in the mid 70s which is considerably less than many agricultural banks. As a general practice, we do not buy brokered deposits and we only use Federal Home Loan Bank advances as a source of funding for brief periods of time to satisfy liquidity needs.

Other suppliers of credit in our area are commercial banks (The American Bankers Association (ABA) tells us the number of Ag Banks increased by 50 banks to 2,300 banks in 2009). Other suppliers are vendors, such as chemical/seed companies or farm equipment companies like John Deere. Farm Credit Associations are quite active in our area and life insurance companies do work the long-term real estate market. It is interesting that the suppliers of credit have changed very little over the last 25 years, except that Commodity Credit Corporation was heavily involved in the 1970s and 1980s in loaning money on grain that was in storage.

We all know that agriculture is very capital intensive and, therefore, the question – can commercial banks alone supply the credit needs of agriculture in the future? Our answer is probably not.

There are several reasons that our bank is not able to tap other sources for funding for additional loans. One reason is that we are family-owned and do not have the funds to increase capital to meet requirements. The regulators are quite strict on capital requirements for banks such as ours and, therefore, we have to keep that in mind while expanding our loan portfolio. We are also quite conservative in our management style and, therefore, have high underwriting standards.

Accounting rules set down by Federal Accounting Standards Board (FASB) certainly affect our ability to meet capital requirements. One example I will give is that we are required to set aside funds for vacation pay. In our bank that is about $500,000 that could be used for capital and increase our lending ability. I have argued with our accounting firm that we will never use that money unless we close the bank as we fund vacation time out of each year's current budget and this money just sits in a reserve account and cannot be used to meet capital requirements. As you can imagine, I have never won that argument.

As the demand for agricultural loans varies a great deal from year to year, liquidity requirements are very critical to our bank so that we can service the needs of our agricultural customers.

In our area, our producers are either guaranteed a crop because of deep-well irrigation or financially reimbursed through CRC insurance and crop hail insurance. For many years we relied upon government programs to keep our farm customers solvent. The advent of CRC insurance and better commodity prices has taken a great deal of risk out of agricultural banking in our area. Even with a sure source of income, it takes a lot of capital to finance our producers.

Our customers on occasion have trouble meeting the down payment requirements because our land is selling at $6,000 per acre. By regulation we require 35 percent down and usually a 5 percent repayment per year. Good farm land is not like buildings, it does not depreciate, but yet we require only 20 percent down on buildings and 15 percent down on houses. We need to work with our regulators to take another look at these requirements and also have the ability to work with these farm borrowers when they have one or two bad years, as history proves the value of the land always comes back to a higher level and as a friend of mine often told me – "they are not making any more land."

In my 45 years or so of financing center pivots, we have never taken a loss. I say center pivot loans are like government bonds and after the last couple of years, may be even better.

It costs our farm customer $500 per acre to grow a crop and if he cash rents the land, it would take over $200 per acre. Plus, the larger farmers all have over $1 million invested in machinery. As I stated earlier, agriculture is very capital intensive.

The basic rules for financing have not changed (we all need to remember the 1980s) -- they are good management practices, cash flow and earnings, and smart marketing with no speculation.

In our area we are in the "golden era" of agriculture. I do not see a crisis in regard to the availability of funds for agriculture, although the regulations may need some tweaking. Our farms are in strong hands with many being passed from generation to generation. There is no shortage of labor as there is a strong passion to be a farmer. Many of our young people that have left want to come back to the farm. In our part of the world, we are in good shape.

Thank you.

Industry Panelist

Remarks

Dale Torpey
President and Chief Executive Officer
Federation Bank, Washington, IA

I am Dale Torpey from Federation Bank in Washington, Iowa. I also serve on the board of directors of the Independent Community Bankers of America (ICBA) and am the chairman of the Federal Home Loan Banks task force for ICBA.

My bank is a $110 million bank located in southeast Iowa in a town of 7,000 and with a county population of 23,000. We have 4 branches and employ 32 people. Washington, Iowa has been recognized for the past several years as one of the best 100 small towns in America.

Our role in Washington, Iowa is as a provincial financial entity. We support local businesses through lending and by buying goods and services from those local businesses. I serve on several boards and organizations as do nearly all of our employees. We make significant donations to local charities and organizations. We do not originate loans out of our trade area.

Most people in today's world would say you simply cannot compete doing business like this. So how do we compete?

First, as Harold Hill in the *The Music Man* liked to say, "We know the territory." Several of our employees are from farming backgrounds and are still active in farming. Many of our employees grew up on a farm. We know the business. We talk the talk.

We work on relationship building. We make sure our employees are seen in the community and that we contribute to the betterment of our community. We have one large regional bank in our area and quite frankly they are easy to compete against. They rarely if ever make donations in the community and they have several layers of management to go through to get loan approvals. We pride ourselves on making a decision on most loan requests within a 24 hour timeframe.

Seldom can we compete on rate and rate alone. If that is all the customer wants then we likely will not be able to accommodate them. But if they want a relationship then we can make it work. And we are successful at that. But we find many times those customers who left for rate alone come back to us in a year or two because they miss the extras that come with our relationship.

And contrary to what you read in the press or hear from Congress we have money to lend. The debtors have to meet our criteria for our loans, but I want to make sure you know we do have money to lend, as do all community banks.

These are some of the projects we have either been involved in or are currently involved in in our trade territory in the last few years:

- Biodiesel plant - this is a 30 million gallon plant that uses both soy oil and animal fat to produce biodiesel.
- Hog confinement construction - we are one of the largest hog producing counties in the United States. Nearly all of our confinement buildings are on a contract basis. We really only have three major suppliers so we limit ourselves to a few confinement buildings with each supplier. This limits our risk in this industry.
- ACE Hardware next to a Wal-Mart supercenter
- Chicken kill plant
- Organic creamery
- Organic egg plant

We sit in a unique area of the country. We have the largest Amish community west of the Mississippi within a few miles of one of our offices. They are an industrious and innovative group of people. They do organic as a way of life and now that it is all the rage they fit in very well to this new way of life. So we have learned to work with them and help them start up these new organic businesses. They have not been without challenges but they are working through the start up problems and are profitable.

- Wind farm construction - we see great opportunities in wind farm construction and in the production of electricity. The proposed wind farm in northern Washington County will cost nearly $1 billion and will produce steady income for the farmers whose land the windmills are on. Plus, the property tax revenue produced will help level out property taxes on other property owners in Washington County. When this wind farm is fully operational, Iowa will produce enough electricity from all of the wind farms in the state to nearly meet the electric needs of our residents.

We see opportunities in technology in farming and in our banks that will allow us to compete on any level.

The increase in production on our farms has grown greatly in just the last 5 years and that will continue. Farms will be bigger and will need more capital and operating credit to continue to grow and feed the world. In our area, where land has sold for as high as $8,000+ per acre, it is not unusual to have 250 bushels per acre for corn and 65 bushels per acre for beans.

One of our biggest challenges is trying to work with government restrictions and subsidies. The best example of this is the biodiesel industry. We helped start a plant in Washington, Iowa.

When the plant was built and started production it worked well. It did not turn the big profits they had anticipated when bean oil was $.23 per pound, but they were profitable. Then in December 2009 the federal government (meaning the U.S. Senate) decided to let the blender's credit of $1 per gallon of biodiesel expire. This has caused a loss of 20+ jobs in our plant and several thousand lost jobs throughout the Midwest. It has had a negative effect on the shareholders of the plant, on 23 banks in the Midwest who hold the loan on the plant and on many families who were depending on the plant operating. This is all because our senators have decided that this is going to be used as a political pawn.

So, one of our big challenges going forward is how much do we trust our government when they say they are going to subsidize an industry and when it is in its infancy they pull the subsidy? This will make many banks and individuals think long and hard before investing in any industry that depends on a government subsidy to make it work until it can gain market share and become a seasoned industry.

We also now have to deal with the new financial reform legislation that is working its way through Congress. This will affect everyone in this room in one way or another. It is not necessarily good for all of us, but it is just one more way that the government is intruding on our business and making it very difficult for small community banks to operate. As an example, we spent nearly $100,000 per year in upgrading computer systems, training people, hiring third party compliance people and making sure we are in compliance for the overwhelming regulations that we have to abide by.

We work very hard to limit the risks in our loan portfolio. We have several models that we use to make sure we have limited interest rate risk on both the asset and liability side of the balance sheet. We have a review system in place that requires us to review each loan in our portfolio that is over $200,000. We also have an outside third party review 20-25 large loans per year for documentation and for safety and soundness. It is a time-consuming process but because of our small size, we cannot make large loan mistakes.

We are very good with technology and we feel we are much more responsive to our customer's needs because we can react to market conditions quickly. You can look at all kinds of loan modeling, but they do not take into consideration our knowledge of the customer and that is a big issue in using only computer models to make loan decisions.

We do not directly compete with large international banks or national banks. Our biggest competition is with local community banks and farm credit and credit unions. We can compete with them on most deals, but farm credit and credit unions clearly have an advantage because they do not pay income tax on their earnings.

In the next 5-10 years, I think we as community bankers need to consider several possibilities that we are going to have to deal with:

1. Farms are going to get bigger and more complex.
2. They are going to need more capital and operating credit.
3. We as community banks will have to form consortiums between our banks to handle the larger loans that will be demanded by these bigger operators. We already work closely with 3 banks that we participate loans with to make sure we are not violating our loan limits. We will continue to find ways to make sure we take care of our customers and that we limit our risk.
4. We are going to have to search for value-added products that we can utilize to increase income to our rural areas.
5. We need to figure out how to educate the general population on where their food comes from and the processes that are used to get good, nutritious and safe food to their tables.
6. I think we are going to experience a moderate farm land price bubble.
7. We need to plan in Iowa on losing our local county courthouses and local schools. Our tax base can no longer continue to support 100 courthouses and over 330 school districts in a state that has a population of just over 3 million people.
8. We need to stop the sale of land going to investors who really do not care about the land or production but only about the rent payments.
9. We need to figure out how to get young people into farming. This will be vital because when the land owner dies or decides to sell if the family is not in the area we will lose another farm and probably get an investor instead of a farmer. I would suggest that we start a program tailored after the federal home loan banks affordable housing program. The farm credit agency could set aside 10 percent of their earnings and use it as a grant program for beginning farmers. I would also suggest that 10 percent of federal taxes the banks pay to the IRS be returned be set aside in a fund to help with grants to beginning farmers. If we do not do this we will wake up some day and find that we only have contract farmers working for large corporations who control the entire food chain in the U.S. and possibly the world. It is a scary thought.
10. We need to work with China and the South American countries on free trade. These are huge markets and China particularly is not going to be able to produce enough food to feed their population for the near future.

This is the bottomline. I have been a community banker my entire 39 years in banking. We are an independent bunch. We are a lot like the farmers we serve. We are innovative, we can react and make decisions much quicker than the mega banks, we know our customer, we will compete and we will survive and prosper.

Thank you.

Industry Panelist

Transcript

Douglas Stark
President and Chief Operating Officer
Farm Credit Services of America

Thank you. I think I am the young and beginning banker on the panel, based on their experience here today.

Hopefully we'll share some thoughts with you, as we talk about agriculture and agricultural finance that will be worthy and spark some thoughts and questions.

I applaud the Federal Reserve Bank of Kansas City for this conference. I am not only honored to be a part of the panel here, but privileged to attend. It's been very stimulating. It's been interesting to hear the diverse thoughts, trends, and implications for agriculture on a global and national level. It is also particularly intriguing to consider the implications of these on our respective parts of the industry, particularly as they would apply to our individual businesses.

As a member of the Farm Credit System and on behalf of Farm Credit Services of America, we are very proud to be a part of the industry we are all talking about and particularly to serve the group we are honored to serve. You are probably aware the Farm Credit System provides debt financing along the whole continuum of agriculture, from the young and beginning farmers that Dale talked about to national and even international agribusinesses. Although we do not have international lending arrangements, we do provide financing to companies that are involved on an international basis.

A couple of points I wanted to talk about specifically have been brought here across the conference, but I think are really appropriate as we consider the lender's perspective in this conference. They are not new to any of you. You've heard them mentioned several times. Dr. Swanson talked about it as well.

The first – and I will not go very deep in it, because they have been talked about already – is, what is the volatility we've seen? Even this morning, Dr. Wilson talked about volatility being twice what it used to be. He emphasized the point of it being twice what it used to be. We, as lenders, and also as producers think about this volatility. We look at all these charts and we look at the averages. It is not the impact of the averages that bothers me as a lender, it is the impact of the exception. As producers and as lenders, we are really looking at those dips and tails in these things that occur and whether we have the financial capacity and wherewithal to really see through these dips and tails we have as a result of this volatility.

Yesterday J.B. Penn and I had a nice dialogue at lunch around this whole supply-demand economics. He chided me a little bit about the Law of Economics has not been repealed, and it has not. But I would tell you, at least from my perspective, it is no longer a simple, linear equation between supply and demand economics. We can all attest to it. There are so many more parts to the equation that come into play today. The issues and the risk are now not only multinational, but they are multidimensional. So it is not as simple as just thinking about, "Okay, we have a balance sheet for #3 yellow corn and this is the usages."

There are so many other things that go into that in globalized agriculture today. For example, we've seen just recently how the euro and then currency valuations can impact issues that happen on our farms and in our communities today. And there is no lapse in time on those issues anymore. When they impact us, they impact us immediately.

Bill Lapp also talked about even oil and energy prices and how they impact and how they are not even driven by agricultural issues anymore. So, when you look at the multidimensional aspect of agriculture, it has really changed the face of what we do, not only as producers and those we interact with, but also as lenders as well.

The other thing I wanted to touch on from an industry perspective was really – and it has been referred to here – the fundamental shifts going on in the industries themselves within the segments of agriculture. I think they are really imperative to understand and I am not sure we've figured out what that all means to us. Lenders are trying to figure some of this out and some of our producers are, as well.

It is particularly evident, as has been alluded to here in the livestock sectors – in swine, dairy, and poultry, where we've seen the vertical integration. We have seen contractual arrangements come into play much more so than has ever occurred in the past. It has changed the fundamental dynamics of those industries, even right before our eyes. I do not think we have figured out how to react to that.

As lenders, and I look at our own organization, we are trying to sort through it. So what does that mean for lending standards on the front end when you are providing services to customers? How do you structure deals? How do you provide the right kind of services in those kinds of arrangements that may be different than they have been in the past?

Even on the back end, we're trying to figure it out. So what does that mean when you have a customer that gets challenged by the circumstances in those industries now by one of these tails or dips in the industry. And, certainly, I am not sure we'd say the last 24 months in the swine industry was a dip or a tail. It was much longer than we all anticipated, but that is really a result of what has changed on these fundamental structures. As lenders, we were trying to figure out how you react to that. How do you deal with customers?

Michael and I were talking earlier this morning about whether it is the dairy or swine industry. Are you going to be the lender who pushes your customer out the door, so to speak, when that is the reduction in inventory that may be needed that brings the industry back around? Those are challenges lenders think about.

How do you work with producers? And who is going to make those adjustments in inventory where either the dairy or the swine industry as examples or even poultry, which participant in this industry or which segment now is going to make those adjustments? Is it going to be the large-scale producers? Is it the small producer? Who is going to make those adjustments? Who is going to blink first and make the corrections that are needed to lower inventory to reduce supplies so we can move forward? Those are some new challenges we have not faced in the past.

I would like to very quickly focus on three issues that will be a part of what determines who will service the finance end of the future of global international agriculture. These are not probably the highest priority. These are three I think are key. They are not the only ones that are going to apply as we go forward, but I want to outline three things from a lender's perspective.

Number one is capacity. When I talk about capacity, I am going to talk a little bit about financial capacity as well as intellectual capacity, because they both apply. We have talked about the human element a little already this morning.

The second one I will touch on a little bit, which is inherent in our business, is risk management. So I will talk about that.

And third is the role of technology and how it will shape the future in terms of the services we provide to producers and customers on a national, local, or even on an international level. It is going to be key as we go forward.

First, in talking about capacity, there are two segments to talk about. Those are financial capacity and intellectual capacity. On financial capacity, we have not heard from a single speaker that says agriculture is going to become smaller and require less capital. Not a single speaker has talked about that over the two days I have been sitting here. Everybody is talking about global agriculture requiring significantly even greater sources of capital.

J.B. Penn in one of his first statements said, "It is going to require a huge investment to meet the needs and the implications of a global agriculture."

I would say that it is going to occur both in debt and equity financing. It is going to be both sides of the equation. It is not going to be just leveraged finance and it's not going to be just debt capital, as the lenders here in this panel probably represent.

In addition, debt capital is going to be even more imperative, as leverage will be used with growing and sophisticated operations. If you remember the chart shown yesterday, as the size of operations grew in terms of total revenue, the return on equity also increased. That drives leverage. If you did not think about that, when the return on equity is greater than the cost of capital, you are going to drive leverage. And you will see sophisticated, large commercial producers will want to leverage as strong as they can to expand and grow their operation. That dynamic is very true.

But you are also going to see equity capital becoming more of a key source in the agricultural landscape. We see it already. Dale mentioned it a little bit. We see investors in ag real estate that -- we see a bifurcation in terms of who owns ag real estate and who is farming it. More and more investors – and they might be family members whether parents or grandparents – owned a piece of Iowa dirt or are involved in that farming operation in subsequent generations, along with others in local communities could be community bankers or it could be other businessmen that are involved in agricultural real estate ownership as investors provide a key source of equity for young farmers even to rent land to get started. So those kinds of things are certainly in play.

We are also seeing investors becoming more involved in agribusiness ownership. We saw that evidence yesterday with JBS and we are seeing that more across the country, as investment funds and individual investors take a more active role in actually owning agribusinesses and being a part of that, not just with investing from a debt standpoint, but also taking a direct ownership position.

If you think about it, all the way from land ownership to agribusiness and the integration we have talked a lot about here over the last couple days, while integration will continue to occur, total vertical integration in most of these industries will not occur, simply because it takes too much capital. You cannot own the land, equipment, provide the labor, and fully vertically integrate in most of the industries we are accustomed to now. Some of them have moved that direction already and it has occurred. In other industries, such as the grain industry, that will be very difficult to accomplish.

In terms of capacity, financial institutions and the amount of money required to finance this growing production sector, as well as the agribusiness sector, are going to require bigger balance sheets. Thinking about the things talked about here already – land, the technology in seed, equipment, technology costs, crop operations – that whole aspect is going to take bigger balance sheets, as well as the scope and scale of livestock in agribusinesses. We saw those trends yesterday on some of the charts as well.

Even financing a family farm operation, as was pointed out yesterday, needs several million dollars. It is really challenging. And, as we see those trends continue which have been trends since the early 1900s in terms of the number of acres – that is not going to change. Financing a traditional family farm operation is going to take several millions of dollars to accomplish and will take a bigger balance sheet than has been potentially available in the past.

As an example, I received a call last Friday from a customer – actually I rarely get calls from customers – it was not a customer (prospective customer) an individual I knew who was looking to move their credit line simply because their local lender could not provide the scope and scale of financing they needed to expand their operation and move and grow in the direction they wanted to move.

Even if you say, “Well, we can put together groups of lenders and participate in those kinds of things,” which are viable options, and we are going to need to do to finance a global agriculture, partners in those transactions expect you as a lead lender or participant to take a significant share of that deal. You are not going to simply originate the deal and pass off all the risk to somebody else. So, you are going to need a bigger balance to really be a player in that game as well.

Additionally, what we have found this last 12 to 18 months has been very revealing in this regard is that a lot of time it is easy to get the commitments from other lenders on the front end in a multi-lender deal, it is not so fun when the deal has a little problem to figure out who the good partners are. You learn some very valuable lessons on who is the right partner to bring to the table. That whole dynamic has changed in terms of simply bringing capital together to finance a global agricultural deal. Some partners are very good at working with you through trouble situations and others you wish you had accepted another partner.

Frankly, borrowers are taking a more active role in participating in the selection of who is in their lending group for that very reason and justifiably so. They want to know who is part of their credit package and they want to know them personally, talk to them, and know they’re here if we do end up having problems.

One other thing I want to talk about here deals with capacity of lenders, but it is a term that has not come up. It has been threaded throughout the message we’ve discussed the last couple days and is counterparty risk. As we see vertical integration occur across the spectrum when we are talking about both producers and agribusinesses, as well as lenders trying to manage risk, one of the new risks that has really evolved over the last few years is counterparty risk.

All you have to do is think back to 2008, a very short time ago if you want to talk about where it came to a head. When a farmer who has paid for fertilizer is concerned and is wondering whether their local elevator or coop is going to be able to deliver on that fertilizer, because of either availability or prices, and/or a grain merchandiser who contracted product is worried about whether the farmer is going to deliver because the price is now $8 versus the contract price of $4, or a contract grower – whether it is poultry or pork, for example – that is concerned about whether their integrator is going to file bankruptcy, you now have a great appreciation of counterparty risk. It is a new term that has not been a segment of the agricultural landscape for years and years. It is probably one of the most key risks we face that plays into some of the volatility we talked about before.

That sums up a few thoughts on capacity of operations and the financial capacity side of the banking business. Just real quickly, I will talk about intellectual capacity, because as has been stated here already this is a business of people. We all know we are late on an individual level.

Our producers and people, whether it's on a national, global, or even local level, they are going to interact at a personal level and transactions will occur there.

We believe that in the future, intellectual capacity will absolutely be key. That deals to a degree around expertise. A specialization is critically important, when if you think about it, our financial offices that serve the family farm segment are not the right people to be involved in serving agribusinesses – particularly when you start to talk about multi-lender transactions. So you need the scale of operations, the capacity in your operation to be able to afford the kind of people, much less the critical mass to be able to employ the kind of people, who can work with these specialty operations.

Additionally, specialization is expected by customers. It is also paramount to understanding and tracking sophisticated risk-management practices. Again, you go back to 2008 and think about what happened when you were getting calls for millions of dollars of margin calls on a daily basis from an individual customer, you had better know what you are doing. And not everybody has the capacity or the time to invest in those kinds of activities. So you really need someone who has that specialization to be able to focus on that.

The second area I'll touch on, relative to the three areas for the future of ag lenders, is risk management. It goes without saying we're in the risk-management business. I tell our board all the time, "We are not in the risk-*avoidance* business, we are in the risk-*management* business." All of us involved in agriculture have that perspective.

A unique point of view that comes to my mind as you consider the last several years is the competitive environment in the past decade has bid the risk premium out of our business, as we price loans to customers and we are involved in the business. It has happened in the housing industry. If you think about customers, we had high-risk subprime borrowers paying the same as high-quality borrowers. We bid that out of the business. Because of the prosperity of the last decade with agriculture, as well as the competitive banking environment, we have bid the risk premium out of the agricultural sector as well.

That is going to have some interesting implications as we go forward, particularly as these trends occur when you have highly successful, growing businesses that are going to expect to be treated fairly well. They are not going to stand for, and expect to be paying, the same price as the average customer. It is going to drive some behaviors. For example, successful institutions of the future will not only be able to manage individual borrower credit risk or simply measure institutional return on equity or return on assets, but successful institutions of the future will have to be able to nail down economic capital at institutional levels and measure risk-adjusted returns on capital down to the individual borrower level to be able to respond to the needs of the future ag professionals. That is all I am going to talk about for risk management. There is a whole breadth of things you could talk about here.

In closing, I want to touch on technology. Again, we could have a whole conference on how technology applies not only to the production side, but even to the service segment including lenders. It is not only going to be used and imperative for us to manage risk. It is not just databases, but it is going to involve integrated systems from frontend customer systems, which we have been used to applying at the customer level, and online banking practices, which are very typical. But it is going beyond that. It is going to apply to behind-the-scenes processing and underwriting systems and data warehouses to analyze and provide useful information for institutions to use to make decisions.

It is going to be critically important in terms of serving customers. This is probably one of the most exciting, innovative, and forward-looking things we have in front of us. Technology is going to have a huge impact on how we as lenders provide service to the marketplace, whether it is on a local, national, or even a global level. If you consider what has gone on in the last two, three, or five years – I even look at our business over the last ten years – what has transpired in our business in the last ten years is mind-boggling in terms of how we serve customers.

Look at all the technologies being released today, from the iPad this year to the iPhones and the capabilities they have, to everyone of you sitting out here with cellular technology and a system where you can interact your with home office on a just-in-time basis. They are going to change the way we transact business with customers. It is not uncommon for any of us as lenders – myself included – I'll call one of our customers and catch them on the tractor on their cell phone. They'll say, "Just a minute, I got a buzz from the markets."

And they'll check the markets. They will get a text from a market service they are subscribed to. How technology is involved in serving customers in the future is going to be critical. Again, this takes a level of scale of operations to invest in technology that is very different from where it has been in the past. It is going to be a challenge for lenders and it is going to be an opportunity for some in the future.

There is a gentleman, Mark Seywright, some of you may know, who is a technology futurist and does work with the banking and financial services industry. He had a quote, "The success of the relationship in the next ten years depends on the degree which you allow self-service."

The up-and-coming producers today want a relationship, but they do not want to see you all the time. A good example of that is I was out on a call with a producer and our financial officer here recently, they were telling the story and having fun around the fact they were setting up their last lending arrangement. Finally, the customer told my financial officer, "Do not call me anymore, just send me a text."

He did not want to see him, did not even want to talk with him, just send him a text. So that is how things are changing relative to technology.

I am going to close from the standpoint of, who is going to be the segment that is able to apply these things? It is going to vary across the board, but I have a quote similar to what you have, Michael, from Charles Darwin: "It is not the strongest of the species that will survive, nor the most intelligent, but the most responsive to change."

We are going to see that in the next three to five years in the lending business. Technology is going to be one of the key drivers of that change. Those who are really effective in serving this national and global market will be those who are willing to change, make adjustments, and be responsive to the marketplace.

With that, thank you.

Industry Panelist

Remarks

Tony Arthur
Head of Agribusiness Banking
Bank of New Zealand

My name is Tony Arthur, I am the head of Agribusiness Banking for the Bank of New Zealand. The Bank of New Zealand is part of the National Australia Bank Group which owns Banks in Australia, New Zealand, the United Kingdom and of course here in the United States – The Great Western Bank. Our history in banking and supporting clients throughout the agriculture value chain stretch back well over 150 years and we currently have in excess of $32b of lending supporting farmers in these countries.

I have been asked by the chair to describe and discuss some of the main global forces shaping the agricultural finance industry from an international perspective and one from a fully deregulated market. For the purposes of this brief presentation I will focus on three of these forces:

1. The mega-trends driving food demand and the impact on agriculture production and farming;
2. Changes to global banking regulations and practices; and lastly
3. The changing nature of investment in agriculture – both debt and equity.

Mega Trends Driving Food Demand:

A rapidly increasing population, especially in emerging countries such as Brazil, Russia, China and India, the 'BRIC' countries, where there has, or continues to be strong economic growth, has seen a step change in demand for protein and more complex carbohydrate food commodities. In these countries, large parts of the population have migrated from rural regions to urban areas, attracted by the opportunity of work, education and progression.

Once people have been engaged in work drawing regular wages, influenced more by the Western culture they are exposed to in emerging cities, we have seen a consistent change in dietary behavior once daily income exceeds $10 per day. At this point people begin to eat more meat, dairy products, fruit, vegetables and edible oils. An example of this is to note that liquid milk consumption per person in China is estimated to have risen from two liters to greater than

10 liters in the last 7 years. A factor in this process is that on average people in emerging countries spend a higher proportion of every dollar made on food than in developed countries.

This process has been consistently observed in not only developed first world Asian countries such as Japan and South Korea post World War II, but is now evident throughout South East Asia, Western Asia, the Middle East and other developing regions.

Economic forecasters believe that Chinese economic growth in 2010 and 2011 is likely to reach or exceed 10 percent. Whilst there are risks within the Chinese economy that may impact future growth prospects, if this rate of growth was to continue through to 2017, the Chinese economy would effectively double in size from that of today. The effect on all our countries economies and agricultural markets would be enormous.

As global demand for food has increased, world food stocks and the amount of arable productive land available for food production has fallen. From a period after World War II when the world had in excess of 365 days of food stored till now when we have less that 35 days stored – the United Nations forecast that we need at least 70 days of food to be able to manage a sustained period of poor harvests globally. It is also predicted that by 2050, world population will exceed 9.2 billion people. At the same time, productive farmland per capita will have decreased from a 0.25 hectacres to 0.16 hectacres by 2050.

One may well ask what is the impact on global agricultural finance. In nearly all countries where there is a developed agricultural production with both scale and the ability to export, growing demand for food has seen the process of rationalisation, fewer and larger farms, and corporatisation in farming occur.

This process of rapid aggregation of traditional family-based small scale farming units and emergence of ‘corporate’ and large-scale family farming businesses, some operating globally, continues to provide significant challenges and opportunities for the agricultural finance industry. Increased scale of businesses requires stronger requirement to match banking risk and credit management skills appropriate to the complexity and risk of larger corporate farming operations.

It can also be observed that as these farming businesses have rapidly grown, there is a significant need for their owners to up-skill as well to ensure that their ability to identify and manage risk is appropriate to the scale and complexity of their business. This means owners/shareholders ensuring investment into governance, management information systems, risk identification and management of their businesses.

There has also been a need in many cases to finance throughout the value chain as value chains have continued to rationalize with the emergence of vertically integrated business operating and owning both the farming, processing and commodity distribution. This has created the opportunity for banks to support clients and markets through ensuring they can provide bank products and services at both the production ends as well as the distribution and consumer ends of the value chain – effectively capturing and supporting trade flows across and between countries and markets. Through this we have seen the demand for more complex risk management product and services such as product centric derivatives, e.g. grain and milk powder futures, as well as products that allow clients greater optionality in managing increased volatility such as interest rate and foreign exchange management.

Changes to Banking Regulations and Practices:

The agricultural industry also provides the global finance industry some unique challenges and opportunities.

In New Zealand, banking agriculture, and more specifically farming, is a capital intensive sector to service. Increases in the price of farm land over the past decade, following a larger trend over the last 50 years, has, by and large, out-paced proportionate returns of products grown off the land. This fact has also driven the need for greater scale and efficiency of farms to continue to provide adequate returns to land owners. As farming operations have grown, markets matured, and the use of debt to drive further growth, banks have been required to develop more robust risk models to be able to accurately and prudentially assess risk in lending.

Speaking from our own experience in New Zealand, there are potential challenges that emerge from these factors which include the potential overleveraging of farming markets where the ability to be able to manage greater volatility through changes to farm input costs, commodity returns, foreign exchange movements etc. becomes strained. The Reserve Bank of New Zealand, New Zealand's Central Bank, has recently signaled to licensed Banks, that they intend to alter bank risk models to ensure that greater capital is required to be held for each dollar leant. Effectively what they are signaling is that the debt to farmers in New Zealand, which has tripled in size over the past 10 years and now exceeds $46 billion, is too high and they will manage the de-leverage of the industry through either making the allocation of further capital to the rural market less attractive for Banks, or the net cost of debt will increase to incentivize lower debt gearing. Debt to other agriculture markets in other countries continues to grow, and I am certain there are lessons that can be taken from highly deregulated trade markets such as New Zealand.

The use of leverage as an efficient source of capital has also been impacted by the global financial crisis. As debt market impairment became evident, and credit spreads widened, the cost and access of liquidity funding changed for banks around the globe. In many businesses this has led to increased total banking costs as liquidity costs have grown and has driven review of use of leverage throughout the value chain as producers, processors and distributors have sought to strengthen and re-shape their balance sheets to provide greater ability to manage volatility and the cost and access of capital.

Lastly, the changes to cost and access of debt has also created the opportunity for banks to adapt and innovate products and services to meet the needs of their rapidly changing clients and their businesses and create greater value for their clients and themselves. This can be evidenced by the emergence of traditional full service banks not only providing vanilla term and seasonal debt, but also creating the ability to provide more complex and creative products such as treasury-based risk management solutions, creation and distribution of other types of products such as subordinated debt, hybrid equity and pure equity where opportunities have been identified agricultural businesses where they have bottle necks around the ability to be able to continue to grow and undertake intensification developments without the need to dilute long-term shareholding.

The Emergence of Institutional Investment in Global Agriculture:

I stated earlier that many of the mega-trends driving global food demand have been well documented and described. Many industry participants also have a growing view that these drivers are fixed and transformational in their nature. As part of the emergence of this increase in food demand, the global agriculture market has seen an increase in both individual countries looking to increase investment and activities to secure sufficient food production as well as institutional investment in farming and food value chains and foreign direct investment both within and across countries.

The United Nations data indicates that the total foreign direct investment in agriculture, forestry, fishing and food and beverages has grown from less than $5 billion in 1998 to over $60 billion in 2007. More telling is that investment in the front end of the value chain, producing and processing, is growing at a significantly greater rate than investment further along the value chain.

The emergence of institutional investment and foreign direct investment in our agriculture markets provides both challenges and opportunities for the finance industry supporting agriculture.

Large-scale institutional investment is attracted to agricultural markets where consolidation and aggregation of farming land is possible and where well developed value chains are evident. This is accelerating the corporatisation of farming. The transfer of farm ownership out of traditional family-owned businesses changes the nature of the industry from the perspective that family farming has historically been intergenerational in nature and has been willing to accept, during periods of volatility, lower returns, loss and lower dividends or drawing from their businesses than may be accepted by rational institutional investors. The potential is that, as observed in other sectors, capital is liquid and will tend flow to those sectors that provide the profile of risk and return sought by investors. There is the potential, that if as institutional investment grows as a proportion of industry capital, if it were to leave there may not be the availability of debt and equity from traditional sources – including banks – to fill the void.

However the reality, in my Australasian experience at least, is that without equity investment by institutional players, the ability of the current equity and debt sources to provide further growth sufficient that which will be required to supply global demand for food may, in time become constrained and therefore introduction of institutional investment in farming is a necessity.

Conclusion:

In wrapping up I would like to say thank you for the opportunity to address the Symposium. New Zealand is a small country with a narrow focus in terms of agricultural markets and food production but our continued growth and prosperity will be driven by the same forces that will drive returns to processors and producers here in Missouri, the United States and around the globe.

Thank you.

General Discussion

Meeting the Financial Needs of Global Agriculture

Brian Briggeman, Moderator
Economist
Federal Reserve Bank of Kansas City - Omaha Branch

Mr. Briggeman: In your last comment you talked about debt and equity financing. What kind of interest do you see out there for equity financing at home and abroad within agriculture?

Mr. Swanson: That's a good question. You talk to a lot of hedge funds that want to be long in commodities. But they want to be long in commodities for three months. For them, that's a long position.

It is a good question, because they're stuck. We talk to a lot of hedge funds out of Europe, and they want to be long on commodities, but the only way they can see to be long on commodities is to either physically hold the commodity or to sit on top of futures – index funds of sorts.

If you talk to them about being part of an equity investment, to be part of that commodity production, and there is not much appetite there. There really isn't. You see some of it, but most of the time when you see people who want to get in equity investments, they are really kind of vulture investors. They are really looking for short turnaround. I still don't see much appetite from the investment side to really go long on commodities through a strategic investment of five to ten years. That is just way beyond their time horizons.

Mr. Briggeman: Thinking about what has gone on in Europe in terms of the sovereign debt crisis and thinking about some of the folks worried about – as Mr. Hoenig pointed out last night in his remarks – fiscal concerns here in the United States, how much do those play into the role of looking to finance abroad or finance overseas? You said something to the effect of Colombia in thinking about the high risk. What about on the sovereign debt risk?

Mr. Swanson: I don't really know. My two favorite answers are "I don't know" and "I was wrong." I don't think that is a long-term issue for agriculture. I think it's a volatility issue. If you are having a sovereign debt crisis, it probably won't just go away and be solved easily. It probably will be like a bad case of disease that erupts periodically. It is going to be an issue of volatility going forward, but not a structural issue. That's just my take on it.

Audience Question: Do you think there is a role maybe for the World Trade Organization, if there are cases where there is dumping where they are selling it here for less than it honestly costs? Are there any channels for people to seek recourse?

Mr. Swanson: No, I think the World Trade Organization is a very ineffectual organization, because what they allow you to do in terms of a countervailing punishment is to tax some inbound article from that country that seems to be a violator of some WTO rule. What that does is it puts the burden, then, on the domestic consumer. For example, if somebody is shipping you Commodity A that's underpriced for some reason, you are then allowed to raise a tariff on Products B and C.

What that does is it hurts the domestic consumer that was buying those products before by putting a higher tariff on them. The WTO doesn't really have any effective mechanism for enforcing those types of things. They can make things miserable for a lot of people, but that is not the same thing as making it an effective mechanism.

The United States is a woeful player in the WTO. The Europeans play it like a violin and we stomp on it like a beer can. We don't have any finesse when it comes to the WTO. So I am not a big fan of the WTO correcting these kinds of trade issue.

Ultimately, it is competitive or comparative advantage of the two traders that solves the problem. It doesn't make people happy, but that's what eventually ends up being the driver. See, economists do give blunt answers once in awhile.

Mr. Briggeman: With the financial crisis and the recent things that have gone on, access to credit has really popped up in the minds of borrowers and of customers you serve, what do you feel are some of the risks going forward that could constrain that access to credit?

Mr. Torpey: In our area, we've had adequate credit. There has been no problem. We have adequate funding to take care of all the credit needs. There is always the movement if the stock market looked like it was going to be and remain strong. Some of the liquidity we have would go into the stock market and come out of CDs. Most people don't like to receive 1 to 1½ percent for their investment, so there is a little danger of losing some of that liquidity. But there are still other sources we could tap. So I don't see it being a real threat in the immediate future.

Mr. Holthus: I guess on that subject, I would say community banks – and we were one of them – we got involved in some participation in commercial real estate in some of these big areas, which tells you how smart we are maybe. We did that for years. Now we have been burnt pretty bad. I think going forward, you are going to see a problem, particularly in urban areas where they want to put up a hotel or a big office complex. There is not going to be the capacity from community banks to go into these areas and say, "We're going to finance that."

That's one of the areas that I see is going to be a problem.

Mr. Arthur: From my point of view, I guess there are a couple of issues on the right. First is Europe. Clearly, there is a deep crisis going on, not just with Korea and Spain. In Portugal, clearly there are ramifications across the European continent and obviously the way the global financial system works there are implications for everybody, both here in this room and back home in New Zealand.

The second piece I'd probably put on the table is Western economies spend more than they make. We talked about the growth in all our markets over the last 10 to 20 years, where we have seen significant economic growth, but the reality is there is a cost to that and our ability to be able to self-fund further growth is a real challenge, given we tend to spend more than we actually make. I don't know what the figure here in the United States is, but in New Zealand, we tend to spend about $1.16 for every dollar we make.

Now when somebody in China is spending 50 cents for every dollar they make and they run the surpluses they are, there is clearly a transfer of funding or liquidity from more traditional Western-oriented markets across to the East. It is a challenge for all Western economies to understand how we can transform our financial markets, so they are less prone to fluctuations such as we've seen over the last 18 months that can affect the liquidity in the market.

Mr. Kilmer: Tom Kilmer from the CME Group. Along the same things here, talking tightening credit, something we focused on especially in 2008. The last 18 months really has been somewhat important to us.

When we start to see some tightening credit, as we did, eventually do you get to a point where there is a tipping point in price with farmers out there that constricts hedging and contracting and things like that? If there is such a tipping point, what kind of systemic risk does this really phase to the agricultural market once credit gets to a point where it stops flowing to the ag community?

Mr. Stark: I'd like to make a comment on that. It is interesting that we talk about tightening credit, because it depends upon where you are coming from. Many people in this room who in the ag finance industry would agree we came from a point where credit was really quite lax in terms of structure and spreads.

So, yes, you might be *tightening* credit, but it is a different question than saying that it's *tight* credit. It's very difficult to answer that question, if there is a tipping point where suddenly there is not access to credit and it has a major impact on the ag production side or ag business side. But I don't think we are at tight credit. We are coming from a period of time where we have very loose credit standards and very low spreads for the most part. It's great when you're the borrower, but eventually it has an impact. I'll let other people comment.

Mr. Holthus: I'd say the same thing. There has been good access that ties in with the last question as well. Agriculture has prospered very well through much of this recession. So it has not had near the impact in terms of credit tightening, some to what Dr. Swanson's talking about in terms of the tightening of terms of conditions, but certainly not to the degree it's really impacting the availability of credit at the producer level. Our industry is in really pretty reasonable shape and it continues to enjoy good access to credit overall.

Audience Question: It has been made abundantly clear today and yesterday that agriculture is facing a much more volatile environment than it has in the past, making risk management paramount for survival and thriving. Doug Stark addressed to some degree the risk management issue and spoke to the need for improved loan pricing. I couldn't agree more.

I wonder, Michael Swanson -- and I'd invite the other panelists as well to address –you could identify any specific risk-management practices that bankers need to improve on to get through these more volatile times?

Mr. Swanson: In response to what's happening in the ag sector, it's not the bankers that need to improve, because it is not *our* risk. That is the problem we see so often. The customer comes to you as the banker and says, "What should I do about risk management?"

And your answer is, "Well, you need to hedge or you need to have less debt and more equity."

The problem is, bankers doing risk management is about hedging your interest rate risk, making sure you have adequate structure, all those things. We do that every day as a banker, right? What we're seeing and what is changing is we're seeing cattle feeders, hog operators, and dairymen having to actually move to true risk management. That means selling their output at the same time they buy their inputs in establishing a net position that makes money or doesn't lose too much money. But that's something that is evolving very quickly right now on their side of the table. Maybe it is too brutal, but it is their business and they're the ones who have to learn how to hedge the risk. Bankers have to demand they do it or have them participate with more capital and less debt.

Follow-up Audience Question: Right. But you can't get around the fact that lenders have to manage their risk. When they make that loan, they are taking on risk, right? So that risk has to be managed as well. That risk flows up to the lender from the borrower.

So my question is, lenders can't be operating business as usual in this kind of environment. Are there things that should be done at the lender level that maybe have not been done so much, so well in the future as has been done in the past?

Mr. Swanson: It's a great question. I'll just say, we have a lot of dairy lending out right now. We looked at what we could do to protect our dairy portfolio from credit losses in terms of could we buy calls on milk and buy puts on corn, so the underlying dairy portfolio would be protected in the case of a situation. We looked at that and what we found unfortunately was the cost of setting up margin protection, the cost of protecting our portfolio in terms of what might go wrong with the sector, there is not enough money in the spreads and there is not enough money in the lending relationships to justify *us* taking on a risk position to protect *them* from what might happen to the sector.

We are in the position where we looked at that. We know they have a lot of risk, we know we take on a lot of risk under sector basis, but we have to change. So we've come, at our bank, to understand we have to change something, because it is not working the way it is working right now.

Mr. Holthus: I would like to answer that also. What I think community bankers need to do particularly is, first, not be so competitive that we have it in our mind that we constantly have to grow. Once in awhile, we have to look at some of these credits and we're going to let them go out the door. A lot of times that is really difficult for us to do.

This last year, we let about $3 million go out the door and we've looked back on it and we are really glad we did. A lot of bankers have the growth mentality that you have to constantly grow or you've had this customer for 10 or 15 years and you don't want to see him go. We need to change that.

Mr. Stark: I want to make one additional comment that was embedded in my topic. Lenders of the future are not only going to have to manage individual borrower credit risk, which is what is being talked about to some degree here, but you have to be able to roll up the aggregate amount of risk you're taking, either in different industries or exposure to individual integrators, or different counterparties such that you can understand the impact, if something would occur in one of these tails or downtowns, of how that is going to impact your institution. So it goes a little bit beyond managing or shifting the risk management piece to the borrower. The other piece that I mentioned was around how you price and how you deal with that on a loan-by-loan basis. Lenders have to do a better job.

The other aspect of that is even how much we take some of these large deals, whether it be participations or whatever, relative to our hold position and/or capital position. Our hold positions relative to capital net income are going to be really critical. Those are decisions we can make behind the scene. They may seem like good credits, but if something happens we can't handle that from a net income standpoint or a capital position, you have to adjust what you are doing there. Those are a couple of additional things that are strictly focused at lenders, not at customers.

Mr. Torpey: One quick comment in regard to risk management: As I see it, the biggest danger both to the producer and to the banker is greed. If we could get rid of greed, risk management would be pretty easy.

Audience Question: I did want to ask, how much does loan losses and increased risk in nonag lending impact the willingness of your institutions to make loans to agriculture? A couple of channels that come to my mind would be the loss in the financial institutions' capital, because you have to put more capital into loan loss reserves, as well as if you have an increase in risk aversion on the part of lenders in general. Some of that you would think would work its way into the rates that financial institutions want to charge borrowers, but I did want to know what you folks think.

Mr. Arthur: Can the foreigner go first? A comment from a foreigner: I am probably the worst person to have sitting here, given I have a bunch of colleagues from The Great Western

Bank in front of me. But, as a National Australia Bank Group, the reason that we've come to the United States is an agricultural play, both in terms of the agricultural market, the regulatory system that exists here, and our belief there is further opportunity to grow and be able to help American farmers be very, very successful.

There are absolutely prudential requirements best practiced around allocation of capital to particular markets, so that you don't overbalance any sort of debt portfolio from a risk perspective. But certainly from our view at The Great Western Bank, it doesn't make a difference at the moment to us, given the state and the nature of business here.

Mr. Torpey: It's also a part of how big you are. For instance, in our bank of $110 million, if we have a $500,000 loan go upside down, we have to take it out of our loan loss reserves, it kills our earnings for the year, and it does impact what we have for lending. If Wells Fargo loses $500,000, that is probably not even a half day's earnings for you guys. Yes, you'd have a problem. With us, if we have to put money into the loan loss reserve or charge off a loan, it does make a difference on how we're going forward on our lending. Again, that has a lot to do with our size.