



**RECOGNIZING RISK**  
**IN GLOBAL AGRICULTURE**  
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**Session 4:  
Managing Agricultural Risk**

## **Managing Agricultural Risk**

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Farmers and agribusinesses have sought ways to deal with risk since the very first farmer put some of their precious grain back into the ground instead of their stomachs. The calculated risk of exchanging a sure thing for a possible better (or worse) thing in the future is still at the heart of agriculture. All the possible strategies no matter how elaborate revolve around this primal and unchanging risk. Farmers and agribusinesses are still taking grain and other resources with a certain value today and putting it in the ground or the stomachs of animals for an uncertain but hopefully better value tomorrow. So why, after literally thousands of years, hasn't the market come to the optimal and permanent solution for this risk taking? In 1473 in Sienna Italy, the Monte dei Paschi bank was established to help farmers and merchants manage grain price risk.<sup>1</sup> Surely, 600 plus years of business transactions and government regulation should have produced a universal and effective method for farmers and agribusinesses to mitigate their risk.

In reality, the U.S. and international markets are seeing rapid and dramatic change in risk management in agriculture and agribusiness. Technological and social change drive risk management and adoption evolution. Technologically, telecommunications and the Internet have increased both availability of information and the illusion of information. Socially, while human nature seems to change extremely slowly if at all, the growth of corporations and cooperatives has changed the nature of participants in the agricultural markets. Quite simply, corporations behave distinctly from individuals under the pressure of agricultural risk. Corporations as a collection of individuals with long-term capital structures that insulate decision makers from the day-to-day pressures of the market behave differently. As corporations and cooperatives become ever larger shares of the agricultural markets, they change the risk and reward structure to better suit their needs.

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<sup>1</sup> Against The Gods: The Remarkable Story of Risk, Peter L. Bernstein 1996

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Historically, the first risk mitigation technique for farmers was to hold back enough seed that if the crop failed they could still eat and plant again. This was the first example of “living within your means” and leverage, and it was a brutal teacher. Not surprisingly, this principle still forms the basis of risk management. While farmers might not save the seed themselves, they need to hold enough working capital that if their crop fails or prices plunge they can live for another year (or two) and plant again. Both banks and governments directly influence this most basic of risk management techniques through their policies. Almost universally, banks require a minimum working capital ratio to ensure solvency and ability to mitigate income volatility. Between banks and their regulators the definition and targeted minimum can vary dramatically, and their policies respond to the change in price and production volatility.

Once again, after so many decades of managing agricultural risk, it would seem that the “market” would have settled on a commonly accepted ratio for working capital. After all, farmers and agribusinesses incur a financial penalty from holding excessive amounts of working capital, and they face a severe risk from holding too little. If farmers and agribusinesses are too conservative in retaining working capital they face competitors that can expand faster by using more leverage and bid higher for available assets. This type of risk hardly seems important in the short-term, but many farm operations and agribusinesses are multi-generational. Only those that expanded fast enough to compete remain in business. While it might not seem like a business failure, many farm operations and agribusinesses are forced to sell when they can no longer compete. They do not fail in the strict financial sense, but they do not succeed either on a long-term basis. Almost exclusively, banks and regulators are concerned with the short-term and dramatic risk of illiquidity from holding too little working capital. These are the types of “financial” failures that show up in the statistics. Bankruptcies are counted, but firms that self-liquidate because they cannot compete are not.

One reason why banks and regulators do not have a universal target involving working capital ratios is because they cannot agree on the real risk of price and production volatility. The old jibe about “lies, damned lies and statistics” still holds sway in the world of risk management. What is the “true” price and production volatility? It all depends on the data used to compute it and the assumptions. And, unlike a physical

phenomenon, socioeconomic market systems can change based on large number of factors. What would cause banks and the regulators to agree that price volatility has changed? And, what does that mean to the amount of working capital a farmer or agribusiness should hold? Lastly, a bank's risk standards are a crucial competitive decision. Loose standards attract business, but they invite a financial disaster of their own. Banks and the banking system go through cycles of risk aversion just like all industries. And, the cycles are always backwards looking. So what is the current environment for price and production risk?

The following statistics measure the premier market for agricultural risk throughout the world – the U.S. corn market. The U.S. is the world's predominant grain producer, and corn is the cornerstone of the U.S. agricultural system. The following charts illustrate the U.S.'s unique position in the world of grain. The U.S. consistently produces about a quarter of the world's grain (including rice), and its corn markets are the price setter for traded feed grains around the globe (Chart 1). The U.S. alone sits in the upper right quadrant of grain production versus grain per capita (Chart 2). Other countries produce as much grain (China), and other countries produce as much grain per capita (Australia). However, no one produces both as much grain and as much grain per capita. All grain markets are linked through substitution and opportunity costs.

**Chart 1: U.S. Share of Global Grain Production**

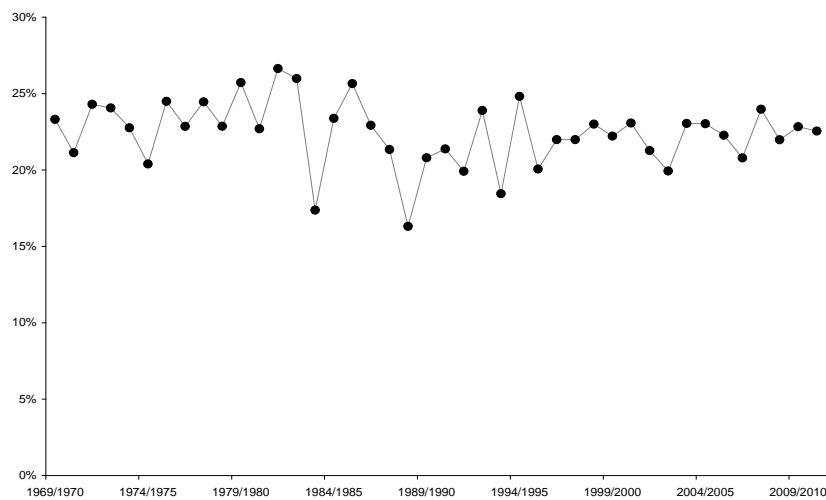
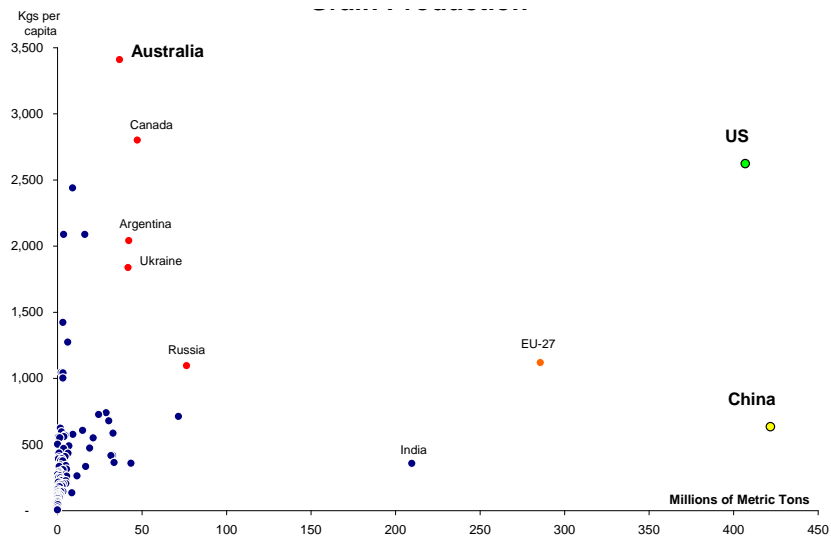
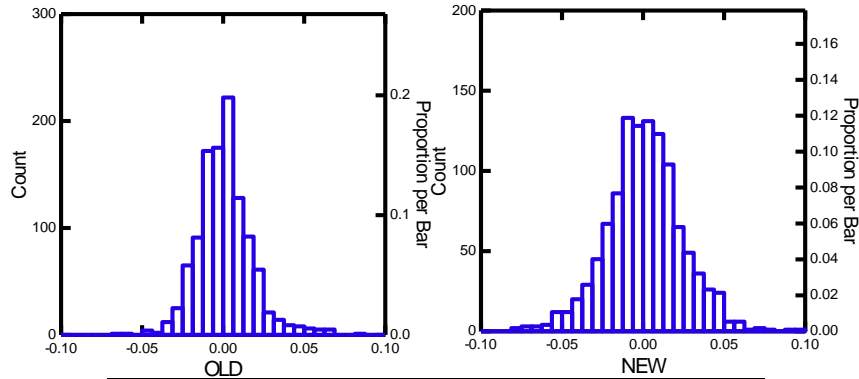


Chart 2: World Grain Production



Something has changed in these key price setting markets. They have become statistically more volatile, and this should be forcing farmers and agribusinesses to retain more working capital and employ additional risk management techniques. The following statistics compare the day-to-day percentage price change in the nearby (the contract closest to the current date) corn contract on the Chicago Mercantile Exchange (CME). Both samples contain 1,120 observations expressed as a percentage change to make comparison more applicable. Both periods are clearly normal bell shaped distributions centered on zero (Chart 3). In both distributions, the median and the mode are 0 percent, and the mean is 0.1 percent. However, the standard deviation has increased 35 percent in the later period. The range of observed values in the most recent period is wider and the volatility more pronounced.

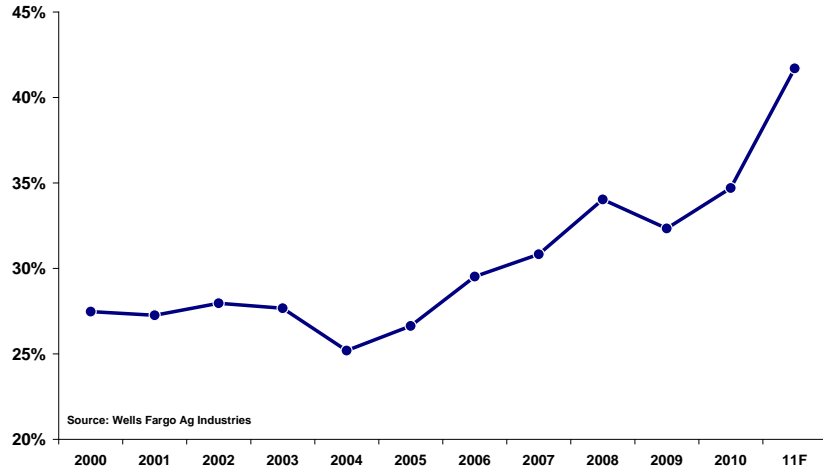
**Chart 3: Descriptive Statistics on Corn Futures Contract**



Daily Percentage Change in CME nearby corn contract	2007 to June 2011	2002 to 2006
N of Cases	1,120	1,120
Minimum	-7.8%	-6.5%
Maximum	9.8%	8.4%
Range	17.6%	14.9%
Median	0.0%	0.0%
Arithmetic Mean	0.1%	0.1%
Mode	0.0%	0.0%
Standard Deviation	2.3%	1.7%
Skewness (G1)	0.01	0.70
Kurtosis (G2)	0.81	2.38

A similar increase in price volatility can be measured in all of the commonly traded agricultural futures contracts. Even crops and products that are not directly traded via futures are being influenced by this volatility. For example, there is no futures market for dry beans, but they compete with corn, wheat and soybeans for planting acreage based on returns per acre. As the price for the “big three” fluctuates wildly, dry beans and other specialty crops fluctuate to match the expected returns. Additionally, the U.S. agricultural market has progressively become more dependent on the global markets as a larger percentage of its sales are going to foreign markets both as a percentage and in absolute dollar terms. Many specialty crop markets such as dry beans and almonds are particularly influenced by the global economy with its greater growth and volatility. In reality, no agricultural market has escaped the increased price volatility. It is simply easier to measure it in the well-documented futures markets.

**Chart 4: The Value of Agricultural Exports Relative to Farm Gate Revenue**



Besides the immediate and obvious response of increasing working capital, what other risk management practices are being emphasized or created to deal with the greater price volatility? There has been a significant amount of innovation in risk management over the last decade. Some of it has been promoted by governments. In the case of the U.S., the USDA RMA (Risk Management Agency) has created hundreds of crop and livestock insurance programs that combine production and price risk policies. These policies have been subsidized by the federal government to promote their usage and reduce the need for disaster assistance. They have also been touted as being trade policy neutral since they do not “appear” to favor planting one crop over another. However, by reducing the risk of farming, they help promote crop production in general. In the early 2000s, this seemed to be a bigger problem when overproduction was keeping grain prices depressed. In 2011, the biggest problem appears to be a lack of sufficient production to keep grain prices from rising.

These “revenue assurance” programs have had a number of significant ripple effects in risk management. Since farmers can be assured of a minimum level of revenue established early in the crop cycle with an upside potential if prices rise, they can forward sell a larger portion of their crop. Previously, the concern was that if they pre-sold a number of bushels at a set price and suffered a crop loss they might need to buy back bushels at a higher price and lose the difference. In reality, most farmers exaggerated the risk of this type of transaction. With the exception of some the most extremely variable

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districts, most farmers never have yields that drop too much. The risk most feared by the farmers was missing out on a rising crop price without having crop to sell. These revenue crop insurance programs have come to dominate the crop insurance sector. And, most agricultural bankers would be very skeptical of farming operations that do not participate in crop insurance. Many agricultural banks have policy governing how much forward marketing an operation can do with and without crop insurance. Additionally, agricultural bankers have become licensed crop insurance agents to strengthen their relationships with their customers and to earn additional premium income.

With the widespread adoption of “revenue assurance” crop insurance, a crucial number of producers have become more willing to pre-sell crops. The two drivers of pre-selling grain is that it allows farmers to manage margin by pairing up input and output prices, and in most years there is a substantial risk premium for selling early before the industry is assured of a good crop. Farmers are naturally long on grain or crops that they produce, and they are naturally short of crop inputs such as cash rent for ground, seed and fertilizer. When they make a decision to purchase an input, they can pre-sell the crop to set the relative price ratio establishing a margin for an expected yield. This form of margin management is rapidly becoming the preferred method of handling risk on input purchases.

It also splits farmers and ranchers in to two distinct groups. The first group is the more traditional group that relies on maintaining large reserves of working capital to deal with price and production volatility. This group believes that farmers earn a better financial return by taking the risk rather than trading away the risk. The second group focuses on the returns from operations more than the possible returns from marketing gain. They can operate more acres on the same amount of working capital. If the strategy is well executed, given the crop insurance and matching of input and output prices, they have reduced the range of possible outcomes both bad and good. Agricultural lenders who understand the risk management technique will be willing to lend with less working capital because the farm operators have truncated the worst case scenarios, limiting the need for the working capital.

The second group has been more successful in expanding over that last five year phase. Given the dramatic rise in crop prices in general, access to additional acres to



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operate over has been the key to producing greater income and higher returns. This is a good example of how changing volatility prevents a single strategy from dominating agricultural risk management. For a prolonged stretch from the 1990s to 2006, the grain markets saw limited price volatility. Typically, the only price events were weather events that would temporarily spike prices until a new crop could reestablish sufficient supplies. This lack of volatility reduced the need for working capital, and working capital was not typically a binding factor for expansion. Additionally, farmers who traded away price risk for set margins lost out on the occasional sharp price increase that could boost returns. These weather driven run-ups in prices boosted the returns to capital compensating farmers for the additional liquidity that held in the working capital.

So what tools is the second group of farmers using to pre-sell grain to establish their margins?

**Table 1: Tools to Sell Grain**

<b>Risk Tool</b>	<b>Pro</b>	<b>Con</b>
Hedge To Arrive	<ul style="list-style-type: none"> <li>• No margin funding required</li> <li>• Cost established upfront</li> <li>• Delivery point established at sale</li> <li>• Local connection</li> </ul>	<ul style="list-style-type: none"> <li>• Locked into single delivery point</li> <li>• Limits ability to negotiate better basis</li> <li>• “Rolling” risks</li> <li>• Hard to evaluate counter-party risk</li> <li>• Typically more expensive</li> </ul>
Futures Accounts	<ul style="list-style-type: none"> <li>• Liquidity</li> <li>• Transparency</li> <li>• Options trading possible</li> <li>• No counter-party risk</li> <li>• Open on basis and delivery</li> </ul>	<ul style="list-style-type: none"> <li>• Margining required</li> <li>• Harder to manage emotionally due to constant repricing</li> <li>• Can become speculative instead risk managing</li> <li>• Open on basis and delivery</li> </ul>
Over the Counter	<ul style="list-style-type: none"> <li>• No margin funding required</li> <li>• Cost established upfront</li> <li>• Known counter-party risk</li> <li>• Counter parties typically stronger financial institutions</li> <li>• Open on basis and delivery</li> </ul>	<ul style="list-style-type: none"> <li>• Open on basis and delivery</li> <li>• Dodd-Frank act reduces number of parties willing to enter swap</li> </ul>

There are three well established techniques; hedge to arrives (HTAs), futures sales and “over the counter” (OTC) swaps (Table 1). HTAs are typically established between a farmer and a grain operator (elevator, feed mill or ethanol plant). It is swap

arrangement that typically references a CME specific contract. The farmer takes fixed futures price for a set delivery period, and the grain operator takes the floating price risk. In an HTA, the farmer and grain operator can establish the basis (cash difference to the future price) or leave it “open” to be determined at a future date. The grain operator almost universally then offsets their floating risk by taking a fixed futures position or selling back-to-back positions. The farmer typically pays the grain operator a set fee for HTA that depends on the length of the swap and the recent volatility and interest rates. The farmer gets a fixed futures or cash price without having to maintain funds for possible margin calls.

Farmers typically overestimate the real interest expense of maintaining a futures position. However, they face a legitimate concern that if they can't maintain the margin position due to lack of liquidity or support from their lender, they could be forced out of their hedge. Grain operators offer HTAs as a source of fee income from the hedges, but most importantly it allows them to encourage and program additional delivery volumes to their facilities. Grain elevators face the risk of non-delivery on these HTA arrangements. When local yields are substantially below average or prices change rapidly, grain farmers might seek “to roll” their HTAs with the grain elevators. The following excerpt is from an Iowa Supreme Court Ruling that discusses the risk involved with HTAs and rolling.<sup>2</sup>

The second element of risk in HTA contracts is introduced when the farmer is allowed to postpone delivery to a later date. This practice is known as rolling. When the price of grain rises by or near the time set for delivery, the farmer may prefer to sell his grain on the current cash market for a higher price rather than deliver the grain to the elevator for the contract price. Under these circumstances, the parties may agree to modify the contract by delaying, or rolling, the delivery date to a date in the future. To preserve its hedged position, the elevator buys back, at the current price, the futures contract it had previously sold on the CBOT and enters into another futures contract to sell grain on the new delivery date.

The complicating factor in rolling is that the price of corn for the new date of delivery generally is not the same as the current price for the old delivery date. This difference is called the spread. If the new price is higher, the spread is positive and will result in a gain or carry. If the new price is lower, however, it will result in a loss or inverse. This gain or loss is fixed at the time of the roll and is added to or deducted from the new

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<sup>2</sup> TOP OF IOWA COOPERATIVE, an Iowa Corporation, Appellee, v. SIME FARMS, INC., Appellant. No. 98-1166. -- March 22, 2000 Iowa Supreme Court

contract price under the rolled HTA contract. Thus, when the farmer decides to roll, he can determine at that time whether he will incur a gain or loss. The problematic risk arises when the farmer rolls to a month when he will not have grain on hand to deliver. He has then exposed himself to an additional, unknown risk because he will have to roll again before he will be able to make the agreed-upon delivery. If the market deteriorates and the price of corn falls, the farmer may ultimately be required to deliver grain at a significant loss.

Clearly, any common practice that has been argued to the state Supreme Court level represents a significant risk. If HTAs cannot be “rolled” to a different delivery date, they behave almost exactly as standard futures accounts. They would need to be settled by delivering the grain or cash settlement.

The Dodd-Frank Act represents a major change in agricultural risk management. It represents the belief that HTAs and “over the counter” swap arrangements create a bigger risk through their counterparty and complexity risk. The argument is that everything a farmer can do with a HTA or OTC arrangement can be done better and with less risk with a futures account. Additionally, the transparent and cash-backed nature of futures accounts managed by a regulated board eliminates many problems. Theoretically, it is true that future contracts offer the best risk management technique. However, human nature trumps financial logic. Many farmers will simply stop forward selling grain to manage risk if they are forced to maintain margined accounts. Psychologically, they feel that every margin call when prices rise is a reminder that they failed to sell at the top of the market. They fear being unable to meet the margin calls and being forced out of their positions at exactly the wrong time. Additionally, farmers often create speculative positions in their futures accounts that add to their risk rather than limit it. Too many operators feel they have superior information because they work in the sector. In fact, many operators are the worst speculators because they have an implicit bias in their expectations. All these factors and more make the theoretical superiority of margined futures accounts over swaps a hollow argument.

What about the livestock sector? For the most part, the livestock sector uses risk management tools more extensively than the crop sector. The amounts of capital at risk have been elevated for a longer period of time. The sizes of operations in livestock have been growing rapidly for more than two decades. Now, with increased feed cost

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volatility and livestock price volatility, the need for working capital is forcing livestock operations to increase their hedging strategies. Each livestock segment has its own unique approaches. A number of factors dictate the prevalent approach in the different livestock segments. Table 1 lists some of the factors and the associated characteristics. Often, the prevalent risk management technique in a segment is dictated by the combination of these factors.

Table 1: Key Livestock Risk Factors

<b>Feed</b>	• Self supplied	• Purchased
<b>Replacement animals</b>	• Self supplied	• Purchased
<b>Output price</b>	• Open bid	• Contracted
<b>Technology</b>	• Open market	• Proprietary
<b>Land base</b>	• Significant	• Minor
<b>Permitting</b>	• Minor	• Significant

For example, a smaller farrow-to-finish hog producer with a large land base might do little price risk management. They can estimate their feed cost based on production costs and yields. This allows them to vertically integrate the cost of feed into their operations. They can supply their own sows, barrows and gilts at a known replacement cost based on feed costs, breeding and mortality rates. They can often take spot delivery contracts with processors based variable but competitive cash or futures markets to be established at the time of delivery. In a situation like this, many producers feel that hedging simply adds complexity and cost without improving the average margin. If they have sufficient working capital to manage the up and down cycles, the unhedged approach represents a very sound risk management technique.

On the other hand, a large feeder pig operation with little or no self-supplied feed would need to practice extensive risk management. They are exposed to the weekly feed price risk, as well as feeder hog price risk. They would not have the offset from the farming operation to vertically integrate the feed price risk. Likewise, barrow and gilt prices are highly correlated to feed prices which would reinforce the feed price risk. Hog operators like these often completely hedge every hog produced. When they purchase feeder pigs, they sell lean hog contracts and buy the corn and soybean meal either physically or by futures. This sets the margin on every pen of hogs raised at the time of

purchase. They often have established hog contract basis with large processors to eliminate that risk as well. The basis established is often an average of a rolling period to assure that they do not suffer a major variation from the market. Without this type of hedging structure, large operators with a small land base would need to maintain an extreme amount of working capital, which would dilute the returns to assets. Likewise, without an extensive hedging program, most financial institutions would not be willing to supply financing given the variability of returns.

As noted before, each livestock sector has its own unique situation. In contrast to the hog and cattle sector, the poultry sector does not have a well established futures market. This creates a major difficulty in trying to establish margin hedges. The broiler producers can actively manage their input costs through hedges. They know to the fraction of the penny per pound of chicken produced what the cost would be given the current futures market for corn and soybean meal, but they cannot layoff the risk on a futures market for broiler meat. They often face a diverse market of sales options. In some cases, they offer a “tolling” arrangement with restaurants and food service companies. They simply take a formula for input costs and mark them up for a pre-established margin per pound. This puts the risk of price on the final buyer. This limits their risk and their reward.

In the case of sales to supermarkets, they may offer short-term pricing based on current market conditions. They can reset prices respectively as cost rise or fall respectively. This does not offer as much margin protection as tolling. If a broiler producer has better or worse costs than its competitors it can change market share to help offset margins. Unfortunately, broiler producers have large fixed expenses in terms of laying flocks and broilers being fed out to finish. On top of the broiler production, they have large slaughter and packing operations that are designed to operate at maximum efficiency with complete utilization. If current and short-term prices do not offer break-evens, they can reduce production, but their other fixed costs will not decline as quickly as the variable costs. This gives the industry a perverse incentive to continue operations at negative contribution rates for extended periods of times. This is leading to more companies looking for additional tolling options to pass the real risk along to the final consumer.

The last livestock sector to discuss is the dairy producers. Dairy resembles the hog and cattle sector more than the poultry sector. It has a functioning (if thinly traded) futures market to help producers manage future revenues. It differs somewhat from the hog, cattle and broiler sector in that much of its feed inputs cannot be directly hedged. For example, important parts of a California dairymen's ration would be alfalfa, distiller's dry grain/cotton hulls and corn silage. In a typical ration, these inputs might account for 87 percent of the feed content and 76 percent of the feed cost. While corn silage and distiller's dry grain do not have their own futures, they can be traded relative to corn contracts with a high degree (but far from perfect) of correlation. This mismatch between the milk revenue and the feed cost in hedging has kept the vast majority of dairymen from becoming effective hedge managers.

The last four years have seen significant income volatility in the dairy sector from excellent to disastrous, often in back-to-back years. This increased volatility and lack of predictability are slowly forcing dairymen to reconsider their reluctance to margin management. They find the alternative need to increase working capital very difficult in the current environment of limited returns. The current generation of dairymen is turning to more and more outside financial advisors to help them manage their risk. This will be a major development in the sector going forward.

## **Conclusion**

Agricultural producers have faced catastrophic risk from the very first farmer. They have spent centuries developing ways to manage that risk. However, the last decade's incredible change in globalization, technology and communications has led to dramatic change that appears to be accelerating. Producers have two effective but contrasting methods for managing risk. They can increase the working capital on a per unit basis to weather the downturns to get to the spectacular upturns, or they can increase their use of hedging per unit to limit income volatility. Both methods have their advantages and disadvantages. Regulators and bankers often want producers to do both to protect the value of the loan, but the costs to the producer are not trivial. Producers and bankers who understand the real trade-offs and risk can thrive in the current environment, and conversely, the ones that do not will fail spectacularly.

## **Managing Agricultural Risk Presentation (Transcript)**

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*Michael Swanson:*

*Wells Fargo*

Well thank you very much. It is a pleasure to be here today. My motto when I give a talk is “You’ve listened to the best, now you’ll just have to suffer with the rest.”  
[Laughter]

I am going to live up to that motto today. One thing I really do hope is that you understand my favorite two answers when I give a speech or do my work at the bank is, “I don’t know” and “I was wrong.” How’s that? And I still have a job. If that wasn’t a reason to sell your Wells Fargo stock, I don’t know what is.

It was very nice of Allison [Felix] to talk about forecasting. I always remind farmers, “The only difference between my forecast and their forecast is this: I am professionally wrong and they are amateurishly wrong. But we are wrong together.”

I’d like to thank Jason [Henderson]. Thank you, Jason, for giving a speaker a very *narrow* topic to talk about, managing agricultural risk. It is always nice to hand one of those defined types of questions. Managing agricultural risks – oh my goodness. We are going to focus a bit here. First off, I want to talk about this – if you don’t remember anything else I say today, you won’t probably remember even this – I want you to remember one thing. We are now telling agricultural operators, “We want you to do more risk management?”

Who in this room has had a conversation with their banker or as a banker about managing risk? Anybody have a conversation – show of hands? Show of hands, who has spoken with an account about risk management? Okay, now what did you ask them to do? Help me out. What did you do when you asked them to manage risk? Did you give them a specific plan? No, we talk in platitudes when it comes to risk management. We say, “*You need to manage risk.*”

That’s what we say. Imagine yourself as a row-crop farmer or as a dairyman in California. What do they hear you say? “*You need to sell for high prices.*”

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Isn't that what they hear you say, when you say, "You have to manage risk?" That's really what they do. Here is the point: Easy to confuse, dangerous when confused. I think we have to be very, very careful as agricultural bankers and as the agriculture sector when we ask people to move into risk management, because they can kill themselves as much as they can help themselves with agricultural risk management. The problem we get is too many farmers don't know what hedging really means. They just don't.

So we are going to say to them, "We want you to manage risk. Go ahead and manage risk."

And then we will be surprised when we find out they've sold all their corn at \$3.75 a bushel at the bottom of the market when they panicked and bought all their fertilizer at \$1,500 a ton at the top of the market when they panicked. That is not risk management. But we don't say clearly to them what it is. I want to make a very clear point. We need to be very careful when we say to our agricultural accounts and our agricultural relationships, "Manage risk."

It is so easy to confuse what they're doing and if they do it wrong, it could be worse than doing nothing. Let's ask a couple of questions. I think we can get some resounding answers to these. Is agricultural risk rising? Yes, we've heard everybody talk about that so far today. It is rising quantitatively. I am going to show you another couple of slides. It is rising qualitatively. I really don't know what qualitative risk means. But, I can guarantee you it is rising emotionally.

Who has had a relationship with a banker or with an agricultural account and you see the stress because of all the opportunity? It is there; it is in their eyes. What stresses farmers more than anything else? Missing out on the top of the market. They are more stressed about missing high prices than losing money sometimes.

What else? What are the drivers? I am not going to spend a lot of time on this, because we've already talked quite a bit about it. The drivers are there, but it is very important to really understand what is driving risk, if you want to manage risk. Finally, what are the implications for that?

I promise you this is my one and only statistical chart [Chart 1]. Typically, agricultural economists love statistical charts. But I want to show quantitatively that risk

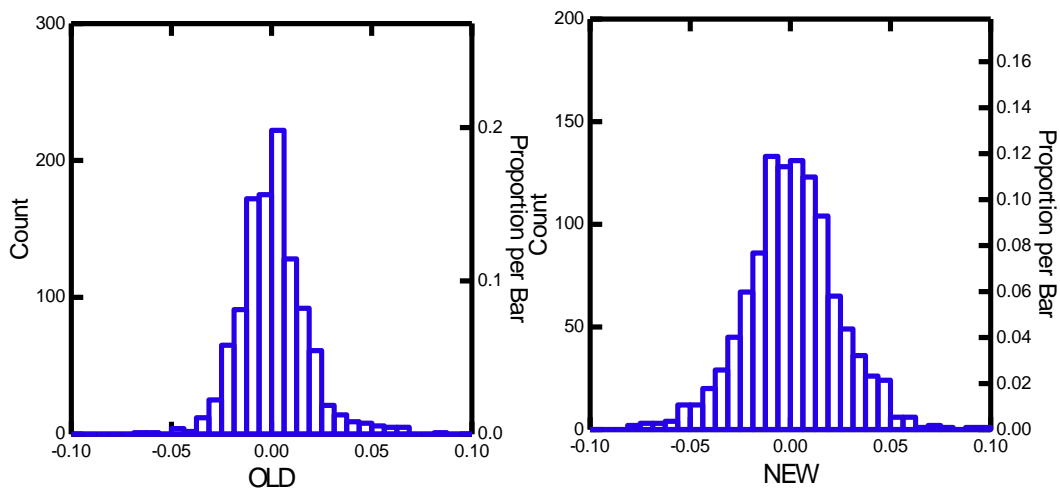


is really rising. What is here? I went back to look at the corn market. It is a big market and a proxy for a lot of agricultural things. I looked at the Chicago Board of Trade “nearby corn contract.” I love it in agricultural risk management, because you have so many confusing terms – nearby, prompt, lead, first on that, frontend, whatever. But this is the most current contract. I said to myself, “Did it become more volatile?”

The answer is, yes, it did. I compared two different periods of time, from 2002 to 2006 and 2007 to June 2011. I compared the same number of days – 1,120 days. So I took two different datasets over the same length of time. Then I said to myself, “How much did that frontend contract, or the prompt, or the nearby change on a daily basis?”

I wanted to look at it as a percent. Why a percent? Think about it. We had \$2 corn and we had a 4 cent move, it is as big a deal as when you have \$6 corn and you have a 12 cent move, because it has the same impact on a percentage basis. So I converted all the daily price changes over that period of time into a percentage change one day to the next. Then I compared the two distributions.

**Chart 1: Daily Percent Price Volatility for CME Corn**



Who remembers Statistics 101? Anyone in this room ever take Statistics 101? But, if you remember your statistics class, remember your *normal* distribution? What we

have up here are two normal distributions. Both are centered on zero. The most likely occurrence in any day of the market is for nothing to happen in the corn market. It doesn't *feel* that way, but statistically that is where the mode, the mean, and the average are. Around that mode and mean, which haven't changed and are still centered on zero, you have your standard deviations – your spread.

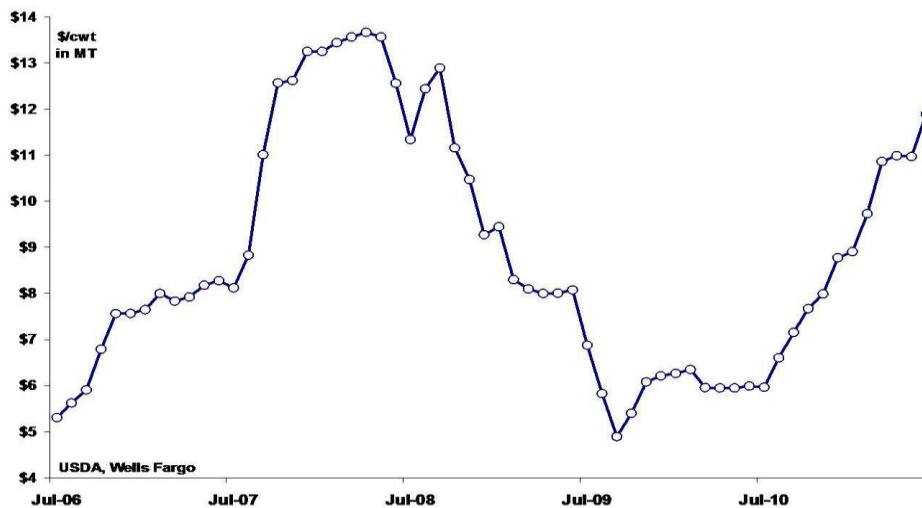
Look at the old distribution on the left-hand side there. See how it is much more narrow and much more pointed going up. Look at the new distribution – much flatter, with big, fatter tails. The tails have statistically gotten fatter. The range has expanded, the standard deviation has expanded. So, yes, quantitatively we have seen more risk come into agriculture. It is easier than ever to be wrong. Right there you can see that we are dealing with something.

Now, is this just the corn market? No, it's not the corn market. Everything is connected. That is the problem we have in agriculture. Everything is connected, but we just don't know how it is connected.

Why would I show malting barley on a chart [Chart 2]? Think about that. Why should malting barley respond to corn pricing. They are not the same crops, right? Malting barley goes into beer, with very predictable demand, not changing around a lot and not a new dynamic market. Look at the price volatility in malting barley. We know why they are connected. It is because ground that can grow malting barley can grow wheat as well. Wheat competes with corn. They are all connected via the pricing mechanism for the opportunity cost.

Look at the volatility in malting barley over the last four or five years. It tripled, dropped, and almost tripled again, showing amazing volatility [Chart 2]. What we are seeing is that corn volatility has come into even specialty crop markets. If you are a cattle or broiler feeder, you are feeling it. Even markets that should have no connection with ethanol have a connection. Why? Because ground that can grow dry beans in North Dakota can grow soybeans and corn, as well. Everybody is looking at the opportunity costs. So the volatility in the corn market has come into specialty crop markets. Hence, nobody is immune.

Chart 2: Malting Barley Price



Here is a question. How do you manage risk in malting barley? There is no futures market. You have a contract, but we all know about contracts for malting barley. They are not worth the paper they are written on. They just change their acceptance rates or their criteria. They can either accept all of it or throw all of it out the door. Think about what is happened. You have this volatility in malting barley. The farmer is seeing it, but what about the beer brewer? They are seeing it, as well. What about the malter? They are going to more tolling contracts. Everybody is responding. No segment of the agricultural economy has escaped this increasing volatility.

What else? Let's talk about emotions. Who in this room has ever made a credit decision as a banker or on the other side? It's interesting. As you get into credit, you know what I mean. If you have been into credit's process, you understand. There are two emotions that break out – the probable and the possible. You know a credit is really in trouble when you start talking about the possible, when things *might* be able to happen. Probable is when it will happen. You know prices will go and prices will go down. But, when people in the credit industry talk about it could happen – we could have a tsunami on top of an earthquake on top of a whatever – then you know the credit process is broken down, because you are no longer talking about the probable, you are talking about

the possible. Right now, there is a lot more talk in agricultural risk management about the possible and less about the probable.

What else? Our two favorite emotions are fear and greed. Who has ever heard the expression that the only two emotions in trading are fear and greed? You guys have all heard that. It is not really true. People are fearfully greedy. That is where they are.

Who remembers the book – *The Third Emotion – Hope* – that came out about ten years ago? That is never going to happen. But fear and greed are a big part of managing risk.

Last, let's talk about integrating these emotions. This is a key point, because we have a huge spectrum in this audience. I know we do, because I know people in this audience. We have people who are individual owner-operators of their businesses. They have to make the decisions and live with them. What we are seeing in agriculture is a very, very big expansion of different operations – whether they are row crop, feeding operations, or specialty crops.

We are seeing a lot of people who are bringing in people, specifically to manage risk in their businesses. It is a real luxury. You are going to hire somebody in, who will come in to be your risk manager. Great. Are you going to have them as a consultant? What is the problem there with the emotions? How do you integrate the risk and reward that are in the business to ensure they are doing the right things?

For example, look at grain elevators. You guys have all financed or worked with grain elevators. How many times has a grain elevator failed because the board brought in somebody and they really didn't want them to manage the grain elevator, they wanted them to outguess the market – make money for them speculating. That's the problem. We are seeing a lot of this risk is changing people's attitudes. People are trying to find a new structure for managing it, but how do you integrate the risk and reward?

Let's talk about what is changing in agriculture and who is changing. There are cohorts. I am going to call them "old school."

I was in North Dakota a number of years ago and I was talking with these old wheat guys. He says, 'Geez, the wheat has been in the bin for five years. I either have to send it to kindergarten or sell it! I don't know what to do.' [laughter]

We are not going to change “old school.” They will finish out their farming careers never changing. However, and this is important to people in this room who are going to finance the current crop – the new operators, they have started to selectively manage financial risk and they will do more so going forward. These are the people who are very, very important to us, because they are in the process of discovering how they want to manage financial risk.

The last group is the new groups – the “next ups.” I was in California last week talking with a dairy guy. He was telling me, “I sent my kid to school for one reason only – learn how to do financial management. I know how to milk cows, but I told my son that when he goes to school, the point of him coming back home is I want you to know how to do finances and risk management.”

Those are the “next ups.” These guys will do it from the start and will do it for the rest of their lives. We are going to see this evolution as the old school falls away, the current crop changes, and as the “next” school takes over.

Let’s talk about the quality of the risk we have. Why now? What are the drivers? I am not going to spend a lot of time on these, because we’ve talked about them so much. There is an intersection of things – global economic growth, biofuels policy, and speculative tools and fools. Everybody loves speculators. Show of hands: Who loves speculators? You will not get rid of them. I always love it when people say we need to change regulation to get rid of speculation. Never going to happen. These are things we’ve talked about quite a bit already. They are the drivers.

Look at China. This is a horrible forecast, by the way. Just horrible! We’re going to talk about why it is so bad [Chart 3]. You look at that number and it’s very, very compelling. If you look at the impact it has had, it has been amazing already. Look at the oil seeds. This has been the driver. China was deficit in oil seed production on a per capita basis. When they got the money, the first thing they turned to was more oil seeds [Chart 4].

### **Chart 3: Real per Capita Income in China**

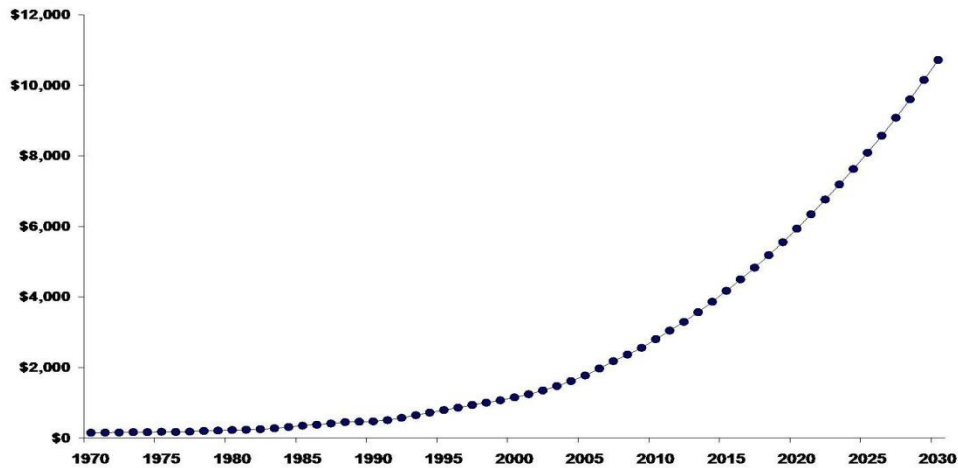
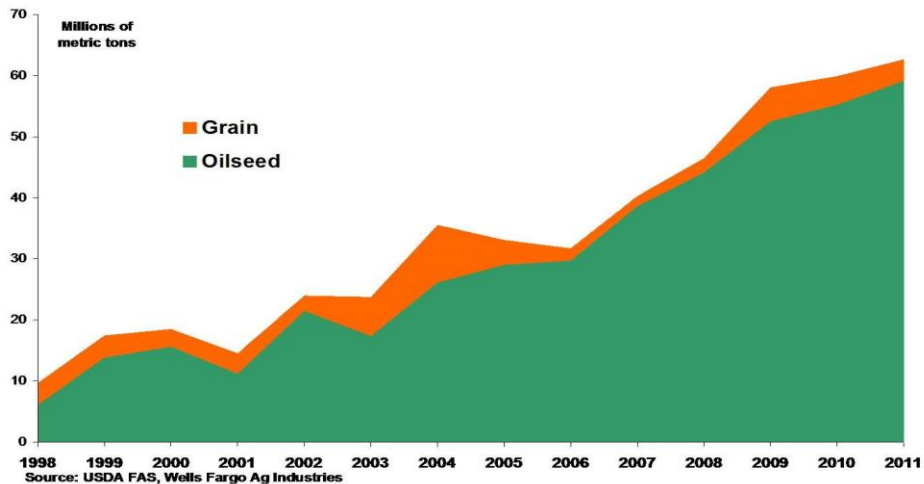


Chart 4: Global Agricultural Exports to China



What about grains? This is my grand forecast. Going forward, you are going to see the grain side swell and add on top of the future growth of the oil seeds. That is an amazingly good outlook for agriculture. They have the money, as Ejnar [Knudsen] said, and they want to spend it. This is going to be great.

But here is the problem. That is a forecast of 41 degrees in Fargo, North Dakota. Show of hands: Who has ever been to Fargo, North Dakota? Did you know the average annual temperature in Fargo, North Dakota, is 41 degrees? If you dress for 41 degrees in Fargo, North Dakota, you will be uncomfortable three months of the year and dead the

other nine. [laughter] So, my forecast is going to be perfect, but it is going to be really, really dead.

Let's talk about meat. There are a lot of numbers on here, but they show a couple of things. First off, this is the USDA's estimate of meat consumption per capita [Table 1]. Look at where China ranks on the countries they put on their database – way down there, about 25<sup>th</sup> down at 50.6 kilograms per person. They are behind, Jamaica, that superpower, and look what they eat – primarily pork. They want variety like anybody else. They are going to want to eat more meat.

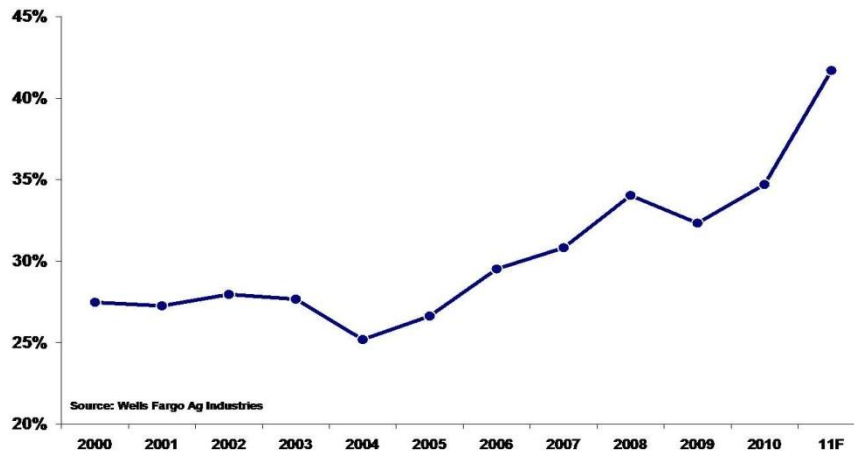
**Table 1: Meat Consumption per Capita**

Kgs.	Commodity			Grand Total
	Meat, Beef and Veal	Meat, Swine (KG)	Poultry, Meat, Broiler	
Country				
Hong Kong	23.9	67.3	40.1	131.3
United States	39.3	28.6	42.8	110.7
Argentina	61.3	6.5	33.1	100.8
Kuwait	26.6		67.7	94.3
Brazil	37.5	12.5	42.9	92.8
Australia	35.2	22.3	35.2	92.6
Qatar			88.4	88.4
Canada	30.0	24.7	29.7	84.4
United Arab Emirates	16.8		61.1	77.9
EU-27	16.7	43.0	17.8	77.5
Chile	23.1	22.6	30.1	75.7
Belarus	29.6	44.8		74.4
Uruguay	60.3	10.9		71.1
Singapore	6.4	26.9	36.1	69.4
Taiwan	5.6	36.4	26.6	68.5
Mexico	17.4	15.9	29.5	62.8
Korea, South	11.9	31.1	14.7	57.6
Russia	16.7	19.6	21.1	57.4
Kazakhstan	26.8	14.6	13.8	55.1
Switzerland	20.7	33.2		53.9
Venezuela	18.5	4.9	29.9	53.3
Jamaica	5.1	3.3	44.6	53.1
Bahrain			52.5	52.5
China	4.2	37.2	9.2	50.6

Going back to the last slide, to produce that meat, it's going to take more grain. The forecast is very, very optimistic. Here's the problem. Depending on trade is a very dangerous two-edged sword. Look at the incredible jump in the amount of revenue that is coming from exports. This number compares the value of our exports, which are mixed, bulk, intermediate, and consumer-oriented, to the value of crops at the farm gate,

including livestock [Chart 5]. You can see in the first part of the decade it was about 25 percent on a valuation basis. Year to date, it is going to be over 40 percent. This is great. This is the reason why we can support record-high meat prices, record-high oil seed prices, and great dairy prices. The money is out there.

**Chart 5: Value of Agricultural Exports Relative to Farm Gate Revenue**

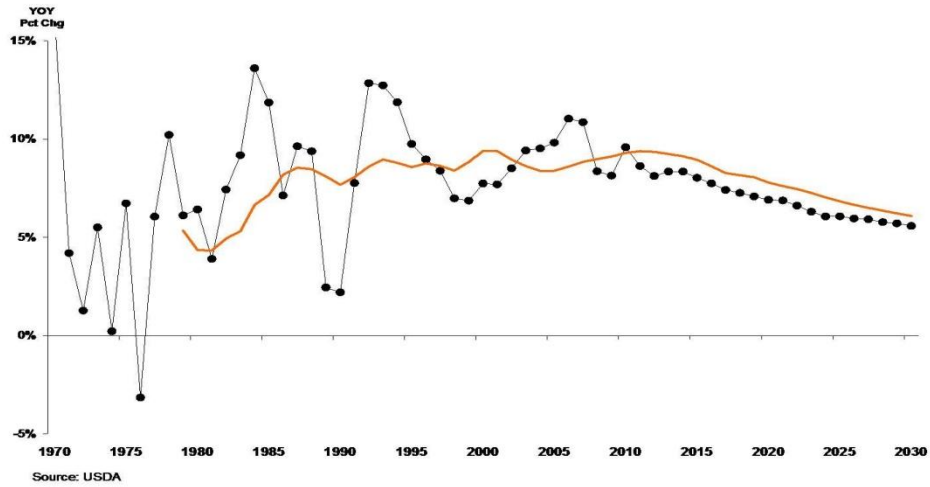


The kick side for risk management is, if it goes away for just a year on a trade issue, we could have a complete reversal of attitudes and prices.

Why do I say that forecast from China is really, really bad? Because we don't take volatility into consideration. On average, China is going to be a monster. We can count on them having monstrous growth. But look at the history, going back into the 1970s and 1980s [Chart 6]. They can stumble. If they stumble for a couple of years, that would be the scenario. It's not a couple of months of bad prices that will kill people in this business, it is a couple of years of bad Chinese economic growth, which changes the mentality of what farmland is worth and what commodities are worth around the world. That would be the real risk. The key question is how do you manage that risk?

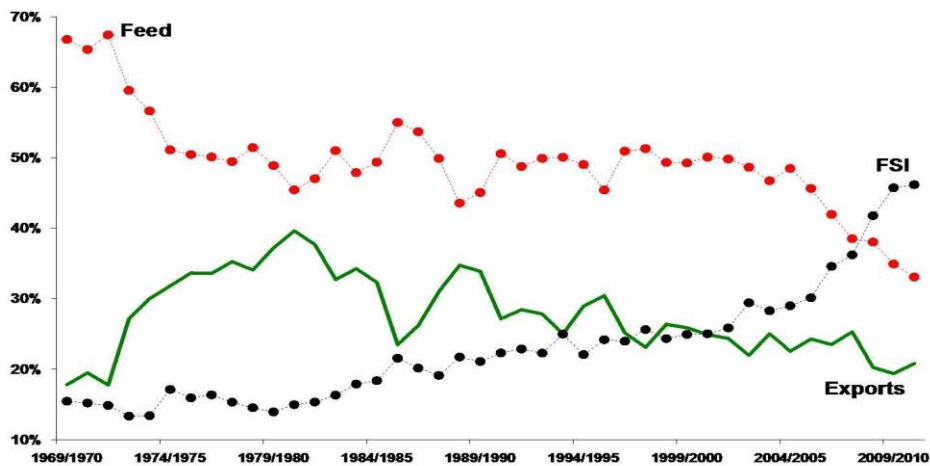


**Chart 6: Real per Capita Income in China**



I won't spend much time on biofuels, because we've already talked about it. How do we get off the tiger? If we kill biofuels policy, what replaces it? There are just way too many things out there to not be concerned about the possible. It has an amazing impact on our system.

**Chart 7: U.S. Domestic Grain Usage**

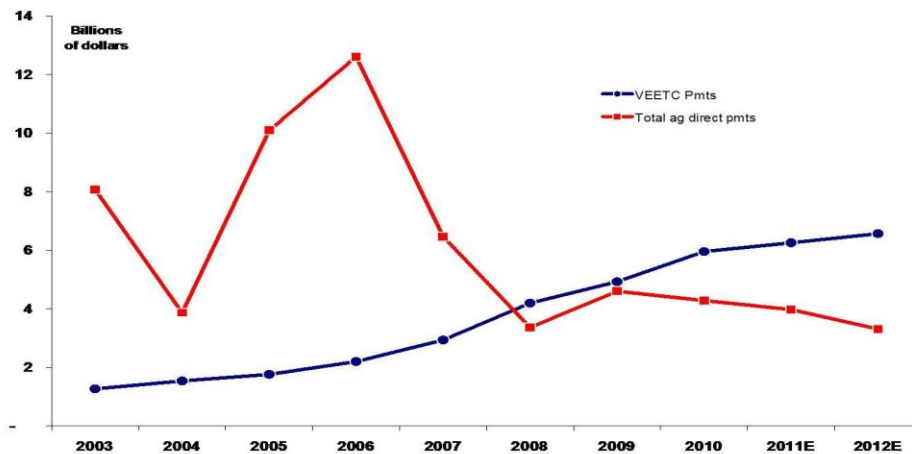


What we have here are the three major uses of U.S. grain [Chart 7]. The red line is, of course, feed for animals – the black line is food seed and industrial, which of course

is ethanol. And the green is exports. We made a conscious policy decision to change how we use our grain in this country.

By putting it into feed seed and industrial, we had a couple of benefits. One, we exposed the real value of what grain was worth around the world. Countries like China would pay more for oil seeds and grain, but they didn't have to. Now we made them, because we have an alternative use for it domestically. The problem is that we know there are a lot of issues around ethanol that aren't sustainable. Here is the payment structure. Another smart move is we took those direct payments in agriculture and switched them to indirect payments via the ethanol tax credit [Chart 8].

**Chart 8: Government Payments**



There are a lot of things at play here; things we shouldn't count on. Let's talk about the implications of hedging versus marketing. Row crops are a very different world. I guarantee you every farmer you talk to says, "I hedge. I sell grain ahead. I hedge to arrive. I sell contracts. I do this and that."

No, you market. Nothing is wrong with marketing, but marketing is not to be confused with hedging. I always use the example of a grain elevator operator. I say to a farmer, "Look, do you think those guys are so smart? No, they're not that smart. I know those guys. So how can they afford to buy grain from you 12 months in the future, when they don't know the real price of grain?"

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He replied, “Oh, that’s easy. They buy it from me and they sell the futures. They put it in a hedge and establish a basis.”

I answered, “Yes, that’s real hedge management. What are you doing? You go out there to buy your fertilizer, spend \$300,000 on fertilizer, what do you do?”

“Nothing.”

“Why did you buy it?”

“I thought it was a good price.”

“No, that’s speculative. That is not marketing, that’s speculation. When you sell your grain, what do you do?”

“What do you mean? I sell my grain.”

“Well, what did you do on a counterpart?”

“Nothing.”

The problem we have is we need to have a fundamental discussion with our row-crop operators and our agricultural operators of what hedging really means. It is not marketing. It is two simultaneous matched pieces of activity that will lock in a profit. What is the problem with that? Farmers hate it.

It is really easy to talk about things like this, but why don’t farmers like to hedge? Because they are terrified of missing a home run. They don’t want to be the guy who goes into the coffee shop and says, “Shhh, I sold my corn for \$4.75.”

Yes, but he bought all his cash rents and all his fertilizer for half the price of everybody else. He made more money per bushel, right? He’s not going to explain that.

They are afraid, because they can see the income earned but they can’t see the risk they’ve avoided. Do they need new tools or do they need a new attitude? Primarily, they need a new attitude. So what are the tools that are out there? You guys can look at these at your own leisure.

I want to make one point. When you talk about Dodd-Frank as a new regulatory environment, there seems to be an interesting attitude within that legislation. The attitude is, swaps are bad. Swaps and futures are bad; they get people to do bad things. Wait a minute. If they have to do them, then Dodd-Frank says to let them do them on a cash-based exchange basis, so we know who has them and we can count them up.

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Here is my challenge back to the regulators who are going to do Dodd-Frank. If you force farmers to do primarily their hedging on the futures market, they simply won't do it. Why? Because they hate margin calls. Why do farmers hate margin calls? Because it reminds them they didn't pick the top of the market every time they sold a piece of grain.

Hedge-to-arrive or over-the-counter swaps with their bank – which we did, but we are not doing as much anymore. Now we say they need \$10 million of investable wealth to be a good swap partner. Oh, come on. These guys are long on grain and we take the grain and we do the business for them and \$10 million of investible wealth is a necessary criterion for managing grain risk? That's crazy. The idea is we are going to force them all on to the futures markets, because we can see it all. It's all regulated. Well, good for you. Farmers aren't going to do it. They simply aren't going to do it and you are going to find they do less of it.

What else? How about livestock? Wow, livestock is a whole kettle of fish all to itself. It depends on who you are. There are a lot of different factors – feed, land, and what kind of contractual arrangements you have, and who you are.

Look at the broiler industry. It's a good example of an industry that went down this path. People who do broiler raising typically don't have any skin in the game. What are they doing to get paid for? Efficiencies: managing the farm, turning the lights on, getting the chickens fed. They are not in financial management anymore. All that has been shifted back to the owners of the broilers.

Cattle feeders are still out there and still managing on their own. Curt [Covington] is hopefully going to enlighten us quite a bit more on the California dairy market and their hedging. I think it is the wild west of financial hedging out there on the dairy side.

Let me finish here. I believe agricultural risk is rising. I can quantitatively measure it. I can look at the linkages into markets you wouldn't suspect would be connected to it. I know it's rising. The opportunity we are seeing also creates the risk. So we need to talk to farmers and agricultural operators and convince them, "You need to do more margin management."

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Margin management is not fun. Margin management is about reducing volatility; it's not about increasing profitability. If that doesn't hurt a farmer's mentality, I don't know what does.

What is the role of policymakers? I am a market economist, so I think they have a very limited role in this business. They are not the ones who can change attitudes. They are the ones who look at the unintended consequences.

They had some opportunities. Crop insurance is a wonderful opportunity. Crop insurance is probably the single best development for risk management that farmers have seen in the last 15 to 20 years. They still don't like it. They pay their premiums and they don't always get a payoff. For them, that is a disaster. We need to encourage more neutral policies like that that encourage people to manage their risk. With that, I am going to stop. Thank you.

## **Industry Panelist**

## **Transcript**

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*Curt Covington*

*Senior Vice President*

*Bank of the West*

Thank you very much. I always appreciate coming back to the Midwest. I love the weather. We are going to wallow a little bit in the weeds, if that's okay with you. I was asked to talk about what goes on in California and I sometimes say to myself, "I wish I could tell you."

I gave you some slides that are a bit helpful. The first thing that comes to mind that I always am asked is, "How in the world do you manage in a portfolio what goes on out there?"

The answer is that it's not an easy process. I gave you some statistics about California. They have about \$42 billion in sales and that was output in 2009, according to California Park, Food, and Agriculture, which far exceeds many of the other states as you can see. There are 37 different crop segments and 350 identifiable crops more or less. We lead in about 70 different commodities. We produce 100 percent of some of the things you probably find in your natural foods and snacks. We produce about 98 percent of almonds. Interestingly enough about almonds, and it ties in with what I've heard today and yesterday, is 80 percent of the almond crop leaves this country – 80 percent! So 8 out of every 10 pounds is shipped out in a container to somebody other than someone in the U.S.

And you look at some of these other products. What kind of value added is there in raisins? What kind of value added is there in walnuts? What kind of value added is there in pomegranates? What kind of value added is there in pistachios?

Today, you will probably eat one of those commodities. It will probably be at the airport in a snack food. The reality of the matter is, very high-value crops are virtually impossible to grow in other areas of this country or even the world.

The last comment on that page is interesting. It says, “California production of fruits, nuts (and that’s exclusive of politicians), and vegetables account for nearly 55 percent of U.S. production. If you turn the page, I assert this by saying, “What are the real weaknesses in California?”

Here is my comment about that, “If you think California is a bell-weather state, you are probably right.” Which means the problems I will talk about here – or the weaknesses I will talk about here – will probably end up in your state sooner or later. Maybe not all of them, but certainly some of them.

The first one I mentioned is that virtually all of the crops we grow at risk. We have no subsidy programs, and even the crop insurance programs we have, in some cases, are woefully weak given the risk. Some of those crops aren’t mature enough – and I mean in terms of age – to actually have a sustainable crop insurance program. There are no subsidy programs, with the exception of cotton and some for dairy. Other than that, wheat has a little bit. Otherwise, all our crops are at risk. If the crop goes down, so does the income, so does the borrower, and so does the bank.

Most of our crops are retail-driven. I will talk a little bit about this, because it is important everybody understands this. The farmer in California no longer drives how that crop is produced, packaged, or sold anymore. If you are packaging tree fruit, as an example, 99 percent of all tree fruit in the United States comes from California and is grown on less than 12,000 acres. But 100 percent of that, in terms of what is produced, what is grown, what is taken out, what is replaced, how it is packaged, and where it ends up is driven by the retailers, by Costco, by Kroger, by Wal-Mart, and to a lesser extent by some of the regional chain stores.

I don’t even want to talk about number three, and that is the political and special interest groups. It’s coming your way, but Tom Stenson [Farmer Mac] said to me yesterday, “Water is going to be an issue everywhere, no matter where you live.”

The battlefield for water and the issues surrounding water started in California. And I am not necessarily proud of it. With the growth in the population, and it is important to understand this, California is a big state. Two areas – Los Angeles and San Francisco – are where 60 percent of the population lives. They dominate the politics. They determine what is going to happen in the state, who is going to get elected and,

more importantly, what is going to happen to the resources in that state. They decide what the farmer is going to do with those natural resources. California has not built a new dam in virtually 30 years. It is a crumbling infrastructure.

The state's population has outgrown its ability to store water. I was telling some of my banker friends yesterday, we had 25 feet of snow in the Sierra Nevada Mountains. I live 45 minutes from Yosemite National Park. I've never been there, but I hear it's great. This year California farmers are going to get a 60 percent water allocation of the snow that comes out of that mountain range and the balance of it flows right past Nancy Pelosi's home and goes out into the Pacific Ocean.

You say, "Why is that?"

It is pretty simple. Special interest groups and politics drive what goes on in California. And it affects other things as well. The Endangered Species Act determines what ground can be farmed and what you can do with that ground. There are certain parts of California where you can't level your ground until an environmental and biological opinion has been derived on that piece of property you've owned for four generations.

Water sales are a big deal. You think, "Water sales. You mean I can sell something that comes out of my tap?"

No, but you can sell water that is being delivered through the system. And it's a very unpopular thing these days. Farmers get in trouble. Their water allocation is worth more than their land. We had a water sale about a year ago. It was consummated for \$72 million. That is three times the value of the operation on a book-value basis. They sold the water to the City of Mojave. If you know where Mojave is, they need the water.

Politicians don't like it; environmentalists hate it. But it also works the exact opposite way. I can buy your water and you can buy mine. A lot of people in that state think the water – even the ground water – underneath your feet on that property you own belongs to them. They are going to decide what you do with your water.

I was asked to talk a little bit about the at-risk nature of what goes on in California. So I divided this between the banker and their tendencies in California and the farmer and their tendencies. How did they look at things? (This is through my eyes, of course, not theirs, because they will completely disagree with everything I say.) But I



am also speaking for a lot of bankers I know. They would also disagree probably with what I am about to say.

Here is the deal. Because of the at-risk nature, I want to take some of the four basic components of what our bank looks at in terms of managing risk. First of all, our goal is to drive working capital levels to at least 20 percent of gross disbursements for a year. Dr. Ellinger, you made a comment and I thought it was interesting. You said, “Current ratio is kind of for the birds.”

I couldn't agree with you more. Current ratio distorts, particularly in California. If you have a lot of risk in a crop, the most important thing is maintaining certain levels of working capital, absolute dollars in working capital. Not a percentage of assets to liabilities. That distorts the situation. I can have \$1 in assets and 50 cents in liability. I can meet your covenant, but you have no liquidity. He made a comment I thought was interesting. He said, “I think it is more important to look at the Farm Financial Standards Council use of 'working capital to sales' or 'sales to working capital.'”

That was directly derived from the corporate world – very interesting about that. If you are financing a Fortune 500 company, and the company has any working capital at all, management is fired. And the reason is, they say, “Hey, look we can find working capital. We'll just issue another round of stock. Let's go issue some more debt. Let's put it on the back of somebody else.”

Farmers, on the other hand, believe the exact opposite. What is a good level of working capital relative to the growth in sales in that particular sector? And I can't give you a good number. It depends. I would tell you this: If you want a minimum level of working capital to total disbursements off that farm in a given year of 20 percent, you probably want a working capital to sales of roughly 15 percent.

The other thing we do – and this is important – I hear a lot in banking about “What is the break-even of that business?” What is the break-even price on dairy? The break-even price on this? The break-even price on that? That is important, but one of the things we've instituted after the dairy crisis was something known as the sustainability quotient. It is not where their break-even point is. It is, if this happens again what percentage of our portfolio will be in trouble? So arbitrarily you're picking some loss per cow per month or some level of loss that could be generated in another volatile industry.

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Look, we are a pretty simple bank for a \$75 billion bank. We are living on 20-year-old technology in our bank, but it works really well --- the sustainability quotient. We can talk more about that.

The other thing we do that's a little bit different. In California, if you are not managing budgets on a monthly basis, reviewing those budgets, and making sure that borrower is not in variance of more than 10 percent outside of their budget, you will have problems.

A lot of the time in the Midwest, if you get a budget, it is an annual budget. It says it is so much this, so much for that. We allocate so much for fertilizer, we allocate so much for seed, and we allocate so much for this.

In California, it's a little bit different. How much is allocated for the month for that particular crop? We manage that monthly. Every budget we have on our farmers is reviewed on a monthly basis with a variance report. We look at that stuff, because if goes down on an at-risk crop, it is going to go down fast. You can't wait until the end of the year.

We encourage hedging or "taker paid contracts" if it is a not hedgible crop. We covenant the living daylight out of deals. A couple of examples is minimum line clean-downs and maximum cap X distributions. On the other hand, you can see what the borrower thinks. Their view of managing risk, a lot of times, is to vertically integrate to capture a greater share of the profits. I don't disagree with that, but there is more risk with it.

Seek higher margin crops, even if it implies higher risk. Seek a minority partner, who has less to lose than you do, and usually makes all the decisions. You see it all the time. The farmer loses control of his costs. He decides to partner up with a packer or marketer, who has nothing to lose in this deal and eventually takes control of the decision-making process. There is nothing worse than having a minority partner making decisions for you. For a farmer, that's called your bank.

I can't tell you how the world has changed in California, especially in retailer-driven markets. I use the term down below here as the "dumb bell effect." Okay "barbell" would have been better, but then I'm dealing with California bankers, so "dumb bell" just sounded better. There is that cartoon where the borrower is sitting across the

desk in front of his banker. Farmer has a toothpick in his mouth and he says, “You know what? I don’t know who is dumber – me for borrowing the money or you for lending it.”

That is how it is in California in a lot of respects. This retailer-driven market deal is a real, real issue in California. It goes something like this. If we are Costco or if we are Wal-Mart, we are not only going to tell you the varieties we want you to grow – and some of those might take three or four years to get in production, we want a specific size, a specific color, a specific hardness to that fruit, so that when it gets to East Coast it is not a pile of mush, and we want it packaged in a specific package.

Our bank represents the largest tree fruit and table-grape packer in the U.S. During the tree fruit season, he packs 227 different styles of boxes. It’s the same piece of fruit. Wal-Mart wants their box to look different than Costco’s. You’ve been there and have seen it. You go, “Wow! This looks pretty cool.”

They’ve gone from the volume-filled boxes down to these petite, cute-looking things you can take home. The bottom line is in the manufacturing world we call that retooling. We have to stop, everyone has to take a break, we put a new set of boxes on the line, we resize the fruit, and we start over again.

On this retailer business, from a bank’s perspective, we like to see limitations on those sales concentrations. Borrowers are saying, “Why would you limit my ability to do business with Wal-Mart? They are not going broke.”

I am not worried about Wal-Mart going broke; I am worried about Wal-Mart sending you letters, saying we don’t like you anymore. Now you go broke.

We look for a deeper analysis on that counterparty risk. Sure, everybody knows Wal-Mart is good for it. Everybody knows Costco is good for it; Kroger is good for it, but I want our bankers to know they are good for it. It’s easy to do. It’s called the Internet.

The farmer says, “I’d rather do business with the devil I know, rather than the devil I don’t.”

Typically, as a banker one of the things we look to do out there is, if they do have a contract or they do have a sales arrangement with a large, large retailer, we look for an extended termination period. In other words, if they want to terminate that contract, it

can't happen today or in 30 days. It might be a 13-, 14-, or 15-month exit relationship, where the borrower can retool his marketing plan.

As far as political risk, again I don't want to spend a lot of time here. But I will tell you I made a comment about water and biological opinions out in California. Do you guys know what a "biological opinion" is? It's worse than getting a shot in your rear end.

Here is what biological opinion is. A biological opinion is when a special interest group pays someone from a university to give them *the biological opinion they want*. Farmer gets his or her biological opinion from somebody he or she wants. That opinion goes in front of a judge, who doesn't know a thing about either of them and is asked to make a decision as it relates to the Endangered Species Act and the Environmental Protection Agency. That judge decides where the water goes, what ground can be farmed, what chemicals potentially can be used, and the list goes on.

Immigration is a whole other thing. Here is what I have to say about immigration. I know how it is in the Midwest. The easiest solution is to close the borders. If you live in a border state, you know it's not that easy. There won't be any produce, because 55 percent of it comes from California. It is not harvested by machine; it is harvested by hand. "Wow," the argument goes. "You have a lot of unemployed people standing on the streets asking for money. Get them to work."

If they wanted to, we would. If we had the political willpower, we would. The bottom line is, we rely on immigrant labor. So it is a double-edged sword.

Who lives near a meat-packing plant? A lot of you do, right? Tell me there is not going to be or currently isn't an immigration issue there. Same thing.

I just want to finish on a couple of things. The dumb bell risk, barbell risk, I heard it today. This barbell risk is never more evident than in California. You have what are known as "the institutional farmers" and you have the "cult farmers." Cult farmers are growing specialty crops for Whole Foods and Trader Joe's. Do you think that is a small business? Whole Foods last year had \$18 billion in sales. It's not Kroger's and it's not Costco, but it will do. The institutional farmers have found they can no longer provide the supplies and supply these large retailers. Because here is what the retailers are saying, "I want it now, I want this quality, and I want it year around."

So institutional farmers are forming alliances. The great part about that is, like the lead bank or an agent bank, there is an agent farmer in the relationship. And that agent farmer is telling the other farmers how the deal will be done. You grow it to our specifications and our timing, and you'll have a chance to share in the profits or the losses. Here is what happens. The farmers are pretty smart. Since they can't grow it all themselves, they are transferring some of the risk to the other farmers. They don't have the relationship with Kroger's, they don't have the relationship with Costco, they don't have the relationship with these other large national retailers. How do they get it? They go to the guy who has it and say, "We'll grow for you under your name, as long as we receive a piece of the profits."

"Sure, if there are any."

Remember this, institutional buyers are finding out Whole Foods is not a fad, but a fabric of this country. Anybody who thinks Whole Foods is a fad, you had better wake up. Anybody here live in Omaha? Have you been to the Whole Foods Market in Omaha? It's a nice place, huh? It's nicer than most of your regular grocery stores. They are garnering a piece of that market.

As a last comment, there is this huge knowing-doing gap. I think a better way of looking at this is the "knowing-deciding-doing" gap. It's true for the banker and it's true for the farmer, particularly in the dairy business.

We suffered through a \$1.5 billion portfolio of dairy credits in this last two years. It was a very difficult time for the bank. We managed conservatively, we managed consistently, and we were pragmatic about how we dealt with things. There comes a time when the banker has to be educated on ways to hedge and to manage the downside risk of their investment. But he [Michael Swanson] said it, you can preach all you want, but until you give them the tools and explain to them why it is so important, it's like sending somebody up to be a project manager who has never built anything in his life. This knowing-deciding-doing gap is a big problem with bankers and it's a big problem with farmers. We can't expect the farmers to go out – they know they have to do it. But how can we tell them to do it, if we don't know enough about it ourselves?

Finally, I would ask a couple of questions. I heard this and I don't know if it is true. Only 2 percent of farmers who have the ability to hedge in this country actually do

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hedge. Is that a good number? Can anybody tell me? Only 2 percent? Let's say it is 20 percent. That's not a good number.

So I appreciate your time. I'll be available before I am kicked off the stage. I really appreciate this opportunity. It is always valuable for me, because I listen to people and one of my favorite words when I come back here is "benchmarking." If we could benchmark what our farmers in California are doing, we would have a much better time managing that portfolio.

By the way, I put a picture on the back. It is a pretty lousy picture. That's a map of California squeezed down. And those old boxes show you where some of the dams are in California. The number to the left, under those bars, is at percentage of capacity in those dams. The number to the right is the percentage over average. You will notice the number on the left is close to 100 percent. That means the dams are full. The number to the right is percent of average. It means it is anywhere between 15 to 20 percent higher. And the farmers are getting a 65 percent allocation of water – not 100 percent, but 65 percent.

Thank you. [applause]

## **Industry Panelist**

## **Transcript**

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*Richard Bowman  
Bank of New Zealand*

Thank you. There are just a couple of things I want to cover today. I want to talk a little bit about the paper in the handout you have, about agricultural banking system and some of the characteristics we have, and also about the risks we face and some of the characteristics we have in managing it.

First, at the Bank of New Zealand, we have an Agri Portfolio of \$9.50b which is managed by 90 agri-managers that are proactive. This means they are mobile and interact with farmers on their farms discussing their business and viewing farm farms. These managers are spread over 24 separate locations around New Zealand.

The New Zealand agricultural lending sector is vastly different from here. In fact, there are only five major banks lending to the agricultural sector in New Zealand. In the last 15 years, we have seen enormous consolidation in that space. The All State Advances, which was New Zealand's government lending agency to farmers, was purchased and privatized in the very early 1990s. Now that is part of a larger private bank, so it is a very different business. In the 1990's we also had a number of stock firms, solicitor nominees etc who lent to agriculture. All this debt is now consolidated largely into the 5 main bank lenders.

Our businesses are split up into tiers.

We have corporate agri-managers, who manage a line from \$20 million and greater. We have a tier one manager who manages lines from \$5 million to \$20 million. The tier two managers manage from \$1 million to \$5 million. Then we have a telephone-based unit, and they manage anything that is very straightforward, and generally around the \$0.1 million to \$1.0m. It's a bit different type of business to what you guys have here, but is something that is working well for us. Our losses are very modest when you consider the size of the book.

One thing that has dominated the New Zealand rural landscape over the last two decades has been our deregulation in the 1980s, 26 years ago. New Zealand farmers benefited from state minimum prices, tariff subsidies, etc., (similar to what you have here in the US) and basically got to a point where the government could no longer afford to do this. Bearing in mind – excuse the pun – but agriculture is the sacred cow in New Zealand. About 56 percent of our total foreign cash receipts of \$40 billion come from agriculture. Somewhere between \$23 billion or \$26 billion comes from agriculture. So it was a big call for the government to make (finishing subsidies). If you are a cynic, a very small number of voters, of course, comes from that sector, so that had a mighty impact on our economy. What we did see, when you do remove subsidies and expose an industry to the free market, you have casualties and you also have a very efficient allocation of resources from poor performing business and sectors to sectors and businesses that can utilize those resources much more efficiently and extract a greater economic benefit. It's a very core, fundamental design in agriculture in New Zealand. We expose ourselves to a free market, we operate in a global marketplace, we have to be efficient to survive. We are a population of 4.3 or 4.4 million people, and we produce enough food for nearly 50 million people. So obviously, we export. To compete with economies which are subsidized and protected we have to be efficient.

We produce 2.7 percent of the world's milk and we constitute 35 percent of total global dairy trade. So whether you like it or not, we operate in a free market. It's a very important part of New Zealand agriculture.

If you are exporting agricultural commodities, (or any commodity for that matter) which we are, then you have to be big and you have to be cheap. In New Zealand, we have a pasture-based system. This system is based on our unique mix of natural resources. For example we have 90,000 cubic meters of rainfall per capita. If you compare to a country like China or India, they get 2,000 to 2,500 cubic meters of rainfall. So it's very much environmentally conducive to growing pasture and grass. We grow pasture grass for about 9 cents a kilogram of dry matter. As a substitute for feeding grain, which costs about 40 cents per kilogram of dry matter. So you can see where the cornerstone of our low cost production system comes from. It is a pasture-based agricultural system where its feed cost is about 25% of the similar feed costs of its



competitors in subsidized and protected economies. **This is our competitive advantage.** We can produce commodities very, very cheaply, compared with the rest of the world. Even though we are stuck out in the middle of nowhere, we can still produce it more cheaply than a lot of other parts of the world.

If you look at that, you can get a picture about our industry. It's not a big industry by your standards, by any stretch, but if you think about the impact we have from an export and global perspective, we clearly are a major exporter of dairy products.

When you talk about a deregulated industry, the regulation and subsidies imposed by our competitors has a direct impact on us. One of the things we talk about constantly in New Zealand, and you discussed at length yesterday, was the ethanol policy and the subsidies around that. It is a major concern for us. Because, if that were to go, then we suspect we would see a large influx of grain and other resources into other agricultural sectors, potentially dairy, which would bring a wash of milk on the market creating a supply/demand imbalance resulting in lower prices. One stroke of a pen in the US can materially change our milk price in NZ. So it is a major concern for us. So while we are part of a deregulated environment, we can't control what other regulations and risks the world places upon themselves, indirectly affects us. It's something we have to deal with.

The key risk mitigant we have in regards to this is we are the cheapest producer. We know that for example if milk volumes rise in the US and it pushes prices down to a point where we are not making any money in NZ, then the US producer must be losing a lot of money and hence supply will reduce in the US and prices will rise.

Looking at deregulation in one of the slides, look at what happened with livestock numbers, especially the sheep numbers in New Zealand. We subsidized every sheep we had running around in our farms prior to deregulation. What an absolute laugh that was. Productive resources were being put into an uneconomic sector of our economy. This resulted in sheep numbers raising of over 70 million sheep in our country.

The moment subsidies were reduced, everybody started to look for a more intense or profitable use for their agricultural assets. Isn't that just a perfect free market? And it's something we really, really cherish in New Zealand. So we saw our assets shifting. We saw people going into receivership, and we saw more profitable businesses buying those assets and changing land use.

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The key change of land use in New Zealand is dairy. We now have over 4 million dairy cows in New Zealand and about 33 million sheep. So sheep numbers have halved. That was because it wasn't profitable; it was being propped up by subsidies. So we have over 4 million cows and about 2 million beef cattle, so it's a key change in our business.

The other thing we've seen is an enormous amount of consolidation. I am off a family farm in Canterbury, South Island, New Zealand. We ran about 2,000 sheep and produced about 20 hectares of variable cropping – a very, very small farm. All of those farms are being purchased by and consolidated into larger businesses now. The banking industry has funded a large part of this consolidation. From 1990 to 1995, the banking industry in New Zealand was \$10 billion. It now has \$46 billion lent to New Zealand farmers. So a lot of the consolidation in the industry has been funded by debt, provided by the five major trading banks in our country.

The challenge we have around consolidation of industry is that we have mom-and-dad farmers, who have been very successful running their farms, and now they own three farms. They are still running it like they were when they had one farm – bills being paid around the kitchen table, speaking to the accountant once a year, and if the bank leaves me alone, that is a fantastic outcome. This is how these businesses have been run.

Some of those mom-and-dad farms may now own 10 farms, so this might be a \$60 million business now. So the biggest risk we see in our industry is how these consolidated businesses are using a small business approach to running their business.

One of the things we've discussed as a bank is governance. How are these people managing and governing their businesses. This is something that is of enormous concern to us. In New Zealand, the consistency of all the major receiverships in agriculture has been massive recent expansion and terribly woeful and inadequate governance of their business. So, when we talk about managing risk, we can define exactly what the risks are and get a big long list of all the risks out there. However which of these risks is going to impact your business? Which ones create the greatest negative impact? Which ones are relevant now? Or next year? Who is responsible for reviewing and assessing this? Business owners are but they are spending all their time running the business. This is the role of good governance. We need to think more about what form we are going to use to manage that risk.

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How are we going to go, as a business, managing risk when we think about the people who run that business? Their core competency is looking at livestock to understand how they are performing, looking at the crop to know when it needs spraying, fertilizing, planting, or whatever. Is it appropriate that we expect these two individuals to adequately manage the risk of their business? We would all have to agree that is an unrealistic expectation. As banks in New Zealand and other parts of the world, we have lost money on the back of that. We need to think how we go about this differently to ensure this is not replicated. Governance is different from management. Most businesses have management, very few have governance.

At the Bank of New Zealand we used comment on the poor governance of some large NZ agri businesses.

In New Zealand, if you look at what's happened in the rapid expansion of the industry, there is no one that provides an off-the-shelf introduction to governance. So we began a governance workshop ourselves. We got independent people in, use some of our internal people, and built a governance workshop. Put our largest clients in this workshop and explain to them the difference between management and governance. If our clients have well governed businesses they will manage their risk better which in turn manages our risk better as a bank.

We know people have varying degrees of expertise, and things farmers enjoy doing and things they don't enjoy doing. Things they don't enjoy doing, they are generally bad at. Farmers are generally practical outdoors people. These interests and skills don't align well with effective governance. So we need to make people aware that if they want to adequately run a business and manage all the risks associated with it – grow it, expand it, they need to look at introducing other people into their business to help them do the things they have limited skills and interest in, and governance so often one of those things.

In New Zealand, we feel we are fighting a battle on that one, but we feel like we are winning. We made it quite clear to all the large businesses in New Zealand that if they want to borrow money from us, that your prospects of success will be greatly enhanced if you can prove to us you have adequate an management and governance structure, and an ability to manage the risks and ongoing demands of your business. That

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is something we feel is making traction over there now, and the people making deals with us are people who have a proven level of governance and management in their business.

When we think about the risks discussed, even over my time here this morning, an unbelievably diverse range of risks have been mentioned. How can we expect mom-and-dad farmers to manage that risk adequately on their own? In our opinion, and someone might have mentioned it earlier, farmers in New Zealand are no different than here. They *hate* parting with cash. And they *hate* paying for advice. The one consistent thing that is coming through in New Zealand is the large successful corporate style farmers realize they have to pay for good advice.

The big focus for us in managing risk in New Zealand is about getting the governance piece right. We feel if we can get that right, that will get us a long way to adequately managing risk in an environment that will make us more comfortable to be the lender.

To touch very briefly on some of the risks we face, we have all the environmental challenges, as you do here. Water is a big thing for us. We have a lot of water in New Zealand, but managing this resource sustainably is crucial. That is a big and ongoing challenge for us all.

One of our political parties in New Zealand. They want New Zealand to be CO<sup>2</sup> carbon-neutral. Agriculture in New Zealand produces half the carbon emissions of our economy, so that makes it a huge disadvantage for us if we pay a carbon tax on agri output. Bear in mind we work in a global marketplace and we are disadvantaging ourselves, because no one else in the world is going to charge emissions on their agricultural products apart from New Zealand.

We face political risk, which is not only on-shore in New Zealand but also globally, because we are very much a free market. Any decisions you make here in agriculture impact us very, very directly.

Capital gains tax is being muted by a political party in New Zealand. There is no capital gains tax on agriculture land in New Zealand, which has almost been a detriment, because there have been a focus on farming for capital gains rather than cash generation. In New Zealand, cash is king. It is now; it never was for the last decade.

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Just more introductory words: I look forward to all questions and thank Jason [Henderson] very much for the invitation to be here with you all today. Those are some of the challenges we face. [Applause]

## **General Discussion**

## **Transcript**

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*Moderator: Ms. Alison Felix*

*Senior Economist*

*Federal Reserve Bank of Kansas City*

**Ms. Alison Felix:** Well, I'll start it off with a question. What risks are we missing? So in other words, what risks are we *not* managing?

**Mr. Michael Swanson:** Wow! All of the above – weather, currency. It depends on who you are. Say you have more of a currency exposure. A lot of the companies – agribusinesses are being more global in nature. We didn't talk about currency risk management. In weather, futures are coming into play. The amount of risk I've missed in my presentation is almost endless.

**Mr. Curt Covington:** The one risk we didn't talk about that bankers really need to be concerned about is transition risk, succession management. We talk about going from old school to new school and – I am speaking generally for California – are very poor at recognizing that risk. Your comments please.

**Mr. Swanson:** I would agree. Farmers are allergic to taxes and cash, right? [laughter] And they don't like fees either. Good risk management when it comes to transition and estate planning is crucial, but they will not spend \$5,000 to establish the right type of trust situation with the right type of documentation. Then they will leave \$2 million or \$4 million at risk for estate purposes. Shame on us for not showing the dollars saved for the dollars invested, because it is a great investment. You are right, Curt.

**Mr. Larry Dreiling, High Plains Journal:** I'm Larry Dreiling from *High Plains Journal*. I have a question on your last slide, which was about the issue of government involvement and policymakers having a limited role. We are getting ready for a farm bill. What kind of farm bill do you think we ought to have with a Title 1 that would be best for everybody, especially concerning the fact that you do have down here the aide to the Father of Freedom to Farm over here and the guy who developed the idea of direct payments. Where are you standing on that?

**Mr. Swanson:** This is my opinion. So it is professionally wrong now. I think we should get out of it. The only thing I see as justifiable is more crop insurance, because I see it as neutral to decision making. It doesn't favor acres, one over the other. Let me put a hand up and say, "Wells Fargo owns Rural Community Insurance Services – the largest crop insurer in the country – so that somewhat colors my opinion of crop insurance." But the unintended consequences are so huge when we tried to find a mechanism. People are looking for income security. When you try to give people income security, you guarantee yourself some type of bad problem to come out of it. That's my opinion, liked or not.

**Ms. Felix:** We've heard how important global trade is to farmers both in the U.S. and in New Zealand. We've also heard there are risks involved with that, that may be unique to a global trade setting. What do you think the best strategy is for managing that type of risk?

**Mr. Swanson:** I'll give you a cynical answer. You have to have an equal and opposite pain to inflict upon your trade partner, if they decide to give you trouble. Anybody who is involved in the broiler industry understands Russia comes in, Russia goes out. And it's always interesting because they say, "Well, we're not meeting their phyto-sanitary standards in our chicken-processing facilities."

Our answer is always, "We didn't know you had any standards!"

The U.S. is a very naïve trader at the end of the day. We think everything is done above board and for a real reason. Often times, there is very special interest on the other side that have their unique dollars that are in play. If you don't identify those dollars and push back on those dollars, you won't have a successful trading policy. You can't do it, thinking it is all done through sunshine and happiness. So that is a very cynical answer.

**Mr. Richard Bowman:** In New Zealand, we've been trading on a global marketplace for 2½ decades now, so you have to be efficient, as you see, we're trading commodities here.

You are either big or you are cheap in commodities. If you are neither of those things, then you are not a long-term player. From our perspective, like for example the dairy industry, we have a rough rule of thumb that in the U.S., if you are getting \$3,000 U.S. a ton for your product over here, then you are hurting big time, whereas we are

making a bit of money at that price in New Zealand. So we can grow on out of that time until production falls over here and then we get back to a position where we will make quite healthy profits. Once again, that is the whole thing about commodities. You need to be cheap; we need to be big.

**Mr. Covington:** I would just add. I am going to get down again in the weeds a little bit. If I were a banker, we have a lot of these problems that face us out in California. One of the things we make sure is that there is a limitation on the amount of exports that can leave that business without some type of guarantee. There are several ways of guaranteeing repayment, through a foreign exchange facility or letters of credit with foreign banks. The bottom line is many of these smaller growers aren't large enough to take advantage of that or they are not sophisticated enough to know how that works. Typically what we do is make sure they are working with a U.S. trading company, they are trading in U.S. dollars, and that money is coming from a U.S. bank.

We may give some slack there, if we know the borrower, we know their history of not getting out too far over their skis. I want to add something to this later on about us seeing more and more of California farmers' money end up in Mexico, where they are funding their new partners, which are Mexican growers. And that is a *major* issue.

**Mr. Bruce Gonyea, Harvest Moon:** Richard, thank you for the insight into how New Zealand has coped with globalization and also being weaned off government support.

For the panel, I'd be interested to hear your views on the outlook for corporate-anticorporate ownership deregulation of farmland in the U.S. Also, New Zealand and Australia have been in the news recently with regard to foreign land ownership. Maybe the panelists can give their thoughts on that, as well.

**Mr. Swanson:** You notice I didn't use the words "corporate farmer"; I used the word "institutional farmer." That's my new buzzword. Because I think corporate farmer has a bad connotation, particularly in California, and 90 percent of our family-owned farming operations are either LLCs or limited partnerships but, at one point, converted from the family corporation.



The last thing I'll say about this: With all these foreclosures – and you see a lot of empty lots – people are growing these little neighborhood farms on these properties and think they are adding value to their lifestyle. It is a big problem in California.

**Mr. James Andrew, Andrew Farms, Inc.** The first one goes to Michael. The comment I heard in Washington last week is, direct payments are dead. They are going out the window. The *Time* magazine article, “Want to Live Like a Banker? Be a Farmer,” didn't do us any good. However, it bothers me when we start talking about putting everything into crop insurance.

My basic understanding of WTO regulations' direct payments are green box, which means they are perfectly open to be paid. Crop insurance is considered a subsidy and is not. How are we going to resolve that difference? The legislators who are talking about it are smart enough to realize we may be bringing about a Brazil cotton-type lawsuit against the U.S. government later.

**Mr. Swanson:** Red box, green box, and amber box, don't we love the colors? I understand crop insurance is seen as an amber box, not a direct subsidy violation. Given how much money we are cut out of supporting farmers, I don't think the amount of money we will put into crop insurance will get us over the box limits. We will shrink our way to compliance with WTO.

Finally, I think we shouldn't give a damn what WTO thinks at the end of the day. We should always find a better way to push back. We are too naïve when it comes to WTO.

**Mr. Andrew:** The second question was for Curt. Having recently traveled in Europe, I just do not like socialism and government regulation. I think you hit the nail on the head; California is probably the leading example of bureaucracy and regulation.

How are we in agriculture going to mount the effort to change the mindset of the average urban resident and turn this thing around? I am more concerned about that than I am about some of the price volatility that confronts us in the future. I appreciate your comments.

**Mr. Covington:** Man, you raise a great question! We talk about California agricultural leadership. Every state has its own leadership program. The city dwellers think milk comes from a refrigerator or comes from the grocery store. Here is the

problem I see, and I would add that I retired from Fresno State after 30 years of teaching there. From that perspective, when these kids are coming out and being told that your first accountability and responsibility are to the social and economic well-being of others, not to maximizing the wealth on your farm.

I'm talking about the students who come out of Fresno State, not any other university since I can't speak to that. One of the reasons I retired is because when a third of your curriculum deals with things that are "off the farm" and you are trying to teach these kids that, "If you want to come out of here as a strong financial manager, if you really want to manage this business, you are going to have to spend 60 percent of your time making sound decisions – and they have to be sound decisions for your farming operation or your business."

But that is not what they are being taught. They are still taught agricultural economics in the social implications of every decision you make. Again, I am not against social implications; I am not against environmentalism. I'm against extremism.

In California, it's a dead proposition to turn around. It is turning a battleship around in a bathtub in California. Los Angeles thinks the farmers are wasting their water and the people in northern California think we abuse animals – everything from our pet dog to cows. And that is the bottom line.

That is just the best question. I don't know how!

**Mr. Larry Dreiling, High Plains Journal:** Thank you. Larry Dreiling, *High Plains Journal*. Mr. Bowman, I've been to New Zealand and love your country a lot. It's wonderful. I met with your farmers at the National Farmers Union there.

They have an interesting scenario with their discussion group program. Do you as a banker attach some credence to what they are trying to do with discussion groups? You can probably explain it a better than I could, but I was fascinated. They let me come in on one of them. I spent the entire day on one of these discussion groups, and it was really interesting. However, I thought it would be different. I thought it was going to be a bunch of guys sitting around in a coffee shop complaining and it absolutely wasn't.

**Mr. Bowman:** There will be a group of farms in a geographic location on an industry like dairy farming in a province or a region. They will discuss the challenges they have at certain times of the year. They came from old dairy board, which was a

government-funded organization and now it is privatized and each farmer pays a levy. The dairy discussion groups still run and also run in sheep and beef industry.

Basically what happens is there might be 20 farmers in a discussion group. They will go around every one of their farms. It may take two years to get around. They meet once a month to discuss all the challenges hitting on that exact farm. Generally, if that farm has challenges in that location and on that farming type, then everyone else has exactly the same challenges, as well.

I'm always quite proud to be part of a New Zealand farming community that actually does that. They have very open, honest, and frank communications. Nobody has any real secrets, because they are all in the same boat, and they are looking to help out each other. Approximately 70 to 80 percent of the meeting is commercial and 20 percent is social, which is also very healthy for a community. It has a huge benefit for the New Zealand economy in the farming community as a whole. It is very strong in particular in dairy. Dairy is a very simple business, so you can analyze it pretty quickly and can get some good conclusions in a day on a farm.

**Ms. Felix:** I want to ask just one more question before we wrap it up. Do farmers have the appropriate skills to utilize risk management strategies? If not, where can they get them? And who is a good risk-management partner for farmers?

**Mr. Bowman:** I'll start off. Most farmers generally have a reasonably similar range of skills. They are all a little bit different, but they have a complete skill set to run a business. If we think our businesses are getting bigger, more consolidated, more institutionalized, then they need more and more skills to start running the business.

Where do those skills come from? That is a great question. In New Zealand, what's happening here is pioneering. We have an industry that is consolidating. We have people who are asked to function in a very commercial and institutionalized capacity in a farming business, and there are not a lot of those people out there. We wish there were more and more people gaining the skills in that capacity, which will only further enhance the business, create opportunity, mitigate risk, and other things, but there is still a long way to go, in New Zealand in particular.

**Mr. Covington:** This goes back to what I was saying earlier. They know they have to do it. They maybe have made the decision to do it, but they have to get off the

tractor, get out of the milking barn, and get it done. That banker is accountable for half of that education. What I mean by this is, I couldn't count on my hands, toes, and all of yours how many meetings we've set up with commodity brokers and traders. So they get the PowerPoint presentation, which tells them what a hedge is, what a short is, what a long is, how to do this, it goes over their head, and they walk out and say, "Okay, but my neighbor did this five years ago and lost a bunch."

That is what they know about the business. That is what it comes down to. There are probably two or three firms – I don't want to name them here per se – but this is the thing about getting down to the weeds. That is, the banker sits down with the borrower, one on one, somewhere outside of the home or around the kitchen table and get outside the bank, and sit down and hear the questions: "Here is my dairy. How big of a hedge line do I need? Banker, would you be willing to provide a hedge line of that size? And how is it going to get collateralized?"

And the commodity broker or the trader –whoever they are using – will have to walk through how it gets done. Here is the practice and here is the thing they have to understand. *This is not a test model.* If you are going to do this, you have to commit to it over the long haul. This isn't something you do this year and say, "Well, my neighbor received \$2 more a hundredweight, so this stinks."

Reality of the matter will come when there is a time when you are making a \$1 more than they are making. It is all going to come out in the wash. What we know about our dairymen today, and Mike [Swanson] was telling me this earlier and I can't disagree at all, is they want to make up those \$5 a hundredweight losses this year. And it is NOT going to happen. This is the deal of getting into the weeds and getting in front of that client, and the banker and whoever their representative is doing the trading need to sit down and knock out the plan.

**Mr. Swanson:** I would concur. It is not a question of aptitude or skills. It is a question of attitude and you are not going to save them from themselves. That's the harsh truth unfortunately. It will be a great winnowing as we go forward with this volatility.