Agricultural Outlook Forum For Release: Tuesday, February 24, 1998

THE NEW ASIAN COTTON SITUATION

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In 1986, commodity markets were rocked by measurements of a plume of radiation moving to the northeast from the site of a nuclear power facility at Chernobyl in the Ukraine. The western news services ran headlines that the China Syndrome had quite possibly occurred.

It was in the early Spring, and analysts were busy calculating how much of the Soviet Union's food supply was irradiated, and how much land would be forever unharvestable. When the cloud moved east, some analysts started including Eastern Europe in the calculations. One forecaster reported 20 to 25 percent of the Soviet winter wheat crop had been contaminated.

Big events introduce uncertainty into the market-place, and the job of research is to apply knowledge to the situation to ascertain the most likely outcome so that other people can make informed decisions on what to do.

I remember when I got asked about Chernobyl and its impact on cotton, and it was by some-one who was clearly thinking he needed to be making decisions. Markets were in upheaval, cotton included. What I said was that it would be like a melt-down on the U.S. west coast affecting the cotton crop in Mississippi.

Analyzing big events isn't always that easy. And the Asian crisis is surely a big event for many markets.

Two of the questions posed by the recent collapse of currency and equity markets in Asia are how it will affect the United States and how it will affect China. Since these are the two largest cotton-producing countries in the world, these are the topics I have chosen to focus on today at this cotton forum. I will also offer some views on why the Asian crisis occurred and what it and the changes going on in China mean to the world's commodity economy. In the process, I'd like to share some observations about how to approach commodity research when analyzing such a major event and evaluating its present and future impact on a market.

Impact of the Asian Crisis on the U.S. Cotton Situation

Analyzing and forecasting how the recent events in Asian currency and share markets will affect the future is the type of problem that poses the greatest of challenges for research. In order to be competent in this work, a person has to specialize to a considerable degree. Across their provinces, the specialists are not always consistent with one another, yet each is quite sure of his own outlook within his own discipline. So specialized do we become that it's often hard to recognize the inconsistencies. The popular circulation of views - not only in the media but also in the material compiled in the investment community - has to be quite general in order be assimilated by its audience. And specialists often have to rely on that material to see beyond their particular discipline.

The popular assumption is that the underlying specialists know what each other is talking about, when in reality it's an Alice in Wonderland situation, where different contradictory truths co-exist. The problem is that there's too much that we simply don't know.

Events like the Asia crisis are challenging for analysts because they are too big to ignore and they *require* a person to step outside of his specialty and formulate some assumptions. If much of what people are saying is quite possibly wrong, this is risky work on which to depend, which is what makes it such a challenge.

Sometimes a fortuitous event occurs that allows one specialist to recognize the mistake of another, and this is an enormous help when it happens. It steers the analyst when he is required to reach outside of his specialized knowledge to form his convictions. For me, it occurred early in the development of the Asian crisis.

This happened upon the release of the U.S. Merchandise Trade Statistics report last November. It was the regular monthly release of U.S. foreign trade from the Department of Commerce. The U.S. trade deficit widened sharply from $9.5 billion the previous month to $11.1 billion. U.S. exports to the Pacific rim fell by $1 billion and imports from the same region rose by $1.3 billion. Some financial analysts commented on how the Asian crisis was beginning to hit the United States.

One problem with that analysis is that these numbers are two months old when they're released. This was the data for September. Any cargos coming in would have left at least three weeks earlier, probably even longer ago. And goods both coming and going would have been bought as much as months earlier. Whereas except for Thailand, these markets only started crashing in September and October.

The analysis that was going around the financial markets was very nearly impossible.

In fact, it's typically months before these types of effects become visible in our statistical reports. Business has an inertia to it; people who invest capital in plants and equipment and human resources do not want to adjust production schedules too readily, and lead times exist between sale, production, and shipment, let alone the act of transportation.

Having taken the risk to talk about unlikely results in the observations of financial analysts, let me step back within my own specialty. Any flood of cheap Asian imports is probably yet to come, if it ever does. What causes me to say this about Asia is first and foremost its new cotton situation.

What is wrong with this picture? On the one hand, the macro-specialist seems quite sure of a coming drag on the U.S. economy, caused at least partly by the surge of cheap imports, of which textiles and apparel must surely figure prominently. On the other hand, look across the community of cotton analysts and what is the outlook for cotton demand in the affected Asian countries? Unanimously, I think, there will be declines, in some cases major, in some cases minor, but unanimous declines.

What has been the impact on the cotton market?

Despite a very heavily sold U.S. cotton export position at the present time, difficulties in the affected Asian markets, most of which are major customers for cotton, have been partly responsible for a decline in the cotton market, creating potential client-risk problems in those and other markets as well. Meanwhile, these are the traditional customers of Australian cotton, where a record crop is in prospect, a major portion of which is unsold. These problems are compounded by another record cotton crop down in Argentina, the bulk of which also needs a home in the export market.

Yet to be seen, I think, is how the tight cash flow in these countries backs up on Pakistan, and to a lesser extent India, both of which are major exporters of yarn and fabric to other Asian countries for further processing. This is only beginning to be a problem.

So far, this has been the impact of the Asian crisis on the cotton market. Longer term analyses depend on the impact of currency devaluation on trade flows, so let me return to why I see a major inconsistency between what the macro-specialists are saying and what I see happening to the Asian textile and apparel industry.

How can the unanimous view of a drop in Asian cotton demand be squared with an expansive growth of cheap Asian textile and apparel exports?

Those who wish to validate both outlooks may qualify the analysis by attributing the drop in cotton use to falling demand from the newly impoverished domestic populations of these countries. But these cheaper currencies do not go so far in buying dollar-denominated cotton, and the entire rationale of running a business using cotton in these countries has been brutally interrupted. For the people who are not cotton specialists, I should explain that due to climate and unsuitable land, there is very little domestic cotton production in the affected countries. And I should also explain that in international trade, cotton is valued in dollars. If a producing country experiences a currency decline - such as Australia most recently - nothing happens to the U.S. dollar value of its cotton in international trade. It's worth what cotton is worth on the world market.

And there is another irrefutable problem in the prospective "flood of import" analysis. We have substancial country-specific and item-specific barriers to entry to the United States in the form of a quota regime for textiles and apparel that is still very much in place. Being cheap does not gain the right of access to this market, having quota does.

If quota is under-utilized, there may be some prospect for import growth, but think about what this entails. Is there a market for the goods? Are they suitable for this market? Can the manufacturer source raw materials, pay his laborers, and maintain adequate cash flow for the increased business? Are there trusted supplier relations with a U.S. distributer who believes in the manufacturer's capability for the product? These are the realities of doing international business, and these programs - especially for unique, non-commodity-type goods like apparel- can take a long time from inception to fruition.

For all of these reasons, I am not much moved by trade flow arguments from the Asian crisis, at least insofar as the textile and apparel industry is concerned. In addition to the new cotton situation in Asia, knowledge of business and how it happens makes the analysis theoretically unappealing. But finally let me come back around to what I call the first rule of forecasting: first assume the future will look at least somewhat like the present.

What are business conditions like in Asia today? There is illiquidity in the banking system. Difficulties exist in getting letters of credit opened. Business conditions are bad. These companies are having difficulty performing on existing contractual commitments. It's going to be a long time before they can take advantage of a cheaper labor cost. Inflation (which in Indonesia is now around 25%), rising prices, and subsequently rising wages may mean you never reach the long term view.

It is a huge leap from current conditions to a growth in business and a rise in manufacturing output. There are a hundred things that could happen between the now and then.

As someone whose work is mainly in the field of commodity economics, I do have a short-term focus in my forecasts. My job is primarily to understand the present situation and recognize the turning points as they occur, or with luck a little before. The trade impact theory may be perfectly reasonable to someone accustomed to working with a longer-term outlook. The problem with that is you rarely get to the long term.

Understanding the short term and long term impact of the Asian crisis are actually quite similar tasks, because of the first rule of forecasting. For example, in my outlook for U.S. domestic cotton use for both this year and through the 1998/99 season, the Asian crisis is not much of a factor for all the reasons cited. Better to focus on Mexican trade flows in that regard. This brings me to the second rule of forecasting: spend 95 percent of your time trying to understand the present.

Unfortunately, you can't be too sure that what you know about the present is accurate. This is an important point right now, because it's almost time for me to talk about China. I can tie all this together by letting everyone in on a secret of research professionals.

Rarely is the future so readily apparent from what we know about the present. Our statistics, unfortunately, do not often allow such ready recognition of the call and response of economic behaviour.

We barely understand the present so well as to be able to predict any convoluted outcomes of the future with any reliability. I am always mindful of how the 1974/75 U.S. recession had been underway for many months and was approaching its trough before the forecasters recognized it. As George Wino, the retired Chief Economist for the American Textile Manufacturers Institute, once told me, forecasting is a job of catching straws in the wind.

What we know about China and its commodity economy in particular calls into question such fundamental assumptions about markets and rational economic behavior that the bizarre is as commonplace as what we consider normal. This gives rise to numerous contradictory reports from day to day from that country. One day the country is said to have 1.5 billion shirts in stock and a bumper cotton crop in prospect. The next day China shows up on the U.S. export sales report as a big buyer of U.S. cotton.

I read a lot of translations of Chinese reports and academic articles to form my own impressions of China's commodity economy, and I try to use what I read to assess new information out of China. Like the U.S. specialists who can't agree and who are often unaware of their disagreements, so go the Chinese specialists. I find that understanding China often brings me back to concepts from 17th century western economics.

In fact, this is true not only of China but across Asia, more or less, depending on the country. Understanding this is key to understanding how the Asian crisis happened. And why the forecasters failed utterly at seeing it coming.

The Underpinnings of Efficient Markets and Why Asia Crashed

I'll come back to China and the co-existence of the bizarre and normal, but the discussion of 17th century economics draws me into the question of why Asia crashed. This will lead back to understanding China, if it can be done.

Western analysts often forget about the underpinnings of a successful market economy, many of which are lacking more or less in the countries of Asia. From China to Indonesia to Korea to Japan there are vastly different cultures with profoundly different business environments. Sometimes their domestic business gets done through cronyism, corruption, collusion, or by combination with government. When that happens the principles of western business fade away. We should not expect the result to be the same. Lack of transparency under these conditions and the impending maturity of too much short term debt led to capital flight.

We often forget about the underpinnings of a successful market economy. Much of this material was developed so long ago that we take it for granted when we analyze markets. This is a mistake, and it has been a very big one for the financial community in its analysis of many Asian projects over the past years.

There are a few principles we should always be mindful of in evaluating the relative efficiency of markets.

These are the principles of the need for effective legal systems for the enforcement of contracts, the separation of government and business, the requirement of responsibility of loss and effective methods for bankruptcy, and the need for competition. If you have all of these things, what arises is rational economic behavior as we understand it in western markets.

The prospect of failure in the search for profits leads to cautious management of risk to reward and the conservation of capital, which in turn conserves raw material. By this I mean that capital is not applied to transform raw material unless there's a reasonable chance of profit over a reasonable period of time. The period that's reasonable depends on how deep the pockets of the entrepreneur and the patience of his banker.

I read a belated article in *The Economist* a few issues back about how Indonesia does not even have a bankruptcy law. The conclusion was that foreign investors who had lost money had little prospect of any legal means of recovery.

One of the best speeches I've read on the Asian crisis was by Alan Greenspan, Chairman of our central banking system. It was a few months ago and he talked about the need for an effective legal system in order for efficient markets to develop and exist. Truly this has been the single most important lesson from the Asian crisis.

The efficiency of an economy depends upon the effectiveness of the legal system, the enforcement of responsibility for loss, and the existence of competition. Inefficiency means waste. Picture the empty Houston office buildings that rose from the unwise lending practices of the 1980's. If a government is funding the losses in a sustained, ongoing manner - in China's case, for example, the government *is* the bank - this can go on for a very long time. For example, I read an article a while back about how a cotton unit of the Supply and Marketing Co-operative in China was still carrying losses on its books sustained in its cotton purchasing activities of the 1950's.

How waste results in a commodity economy is to me a fascinating topic that I will attempt to describe by comparing some aspects of cotton usage in the United States with China. But before I do that let me give some idea of where I am headed with this analysis by pointing to what happened in the commodity economy of the collapsed centrally planned Soviet Union.

For I read an article from the Russian press a while back where a former official of the Soviet Union was reminiscing on the dissolved country's concrete and steel production figures, which they boasted as being the highest in the world. Yet, he observed, were there bridges and skyscrapers across the horizon? The answer was no.

Similarly, the Soviet Union would use 11 or 12 million bales of cotton a year; now the combined Newly Independent States might be using 2.5 million bales at most. Granted, there has been a sharp rise in imported textiles and apparel and perhaps a fall in living standards as the Engle coefficient - the percent of income spent on food - went to 50%. But there was enormous waste in the centrally planned system, and an awful lot of cotton went to make things that nobody wanted.

Centrally planned economies waste raw materials. So do economies guided by cronyism, corruption, collusion, and combination with government.

The flip side of this coin is what we've been hearing in a good deal of the commentary that has followed the Asian crisis: The world has too much manufacturing capacity, and deflation is a plausible outcome. That is a reasonable statement. The proof, fortunately, has yet to arrive.

The Structure of Industry and Raw Material Demand

The efficiency of the profit motive in directing the consumption of raw material like cotton does not stop at the spindle. The commodity balance sheet stops looking at usage once the raw material is initially processed. The assumption is generally that price will ration demand at that point. In fact, what we've learned in cotton the last few years (and in corn, too) is that when you really have to do that because there's simply not enough of the stuff, prices find some very extreme levels.

What happens is that the textile mill here in the United States typically processes cotton at a rate roughly commensurate with the shipping orders that result from his prior sales. In times of slack shipments, he may choose to keep his plant running closer to optimal conditions than shipments would otherwise dictate by building inventory somewhat. When sales and shipping orders build back up subsequently, he'll ship some from that inventory. But the dividing line on an inventory build versus draw is measured in a few spare weeks of production. Over any prolonged period of time measured in a year or more, the ratio of sales to production is 1.

For his customer, the apparel or home furnishings manufacturer, the reverse may be true to some degree. These industries may ship from accumulated inventory. The reason will be because they face huge swings in demand within the year related to the holidays or the seasons. They have to anticipate that to some degree and accumulate inventories from which to ship at the appropriate times.

The pipeline contains an enormous amount of raw, intermediate, and processed material, and the quantity depends upon the efficiency of the organization of industry and the channels of distribution. In the United States, I think it's reasonable to assume that at least a year's worth of cotton consumption is tied up in the pipeline in the form of yarn, fabric, and finished goods at any given point in time. What's interesting is how it breaks down. We have weaving mills, spinning mills, and a few vertically integrated apparel firms consuming raw cotton.

The weaving mills, consuming about 60 percent of the industry total, run their own spinning sheds due to the high cost of capital to enter the weaving industry. They will hold inventory of fabric equal to from three weeks to two months of production to keep the factories running nearest optimal levels even when they're not shipping at those levels.

The spinning mills, on the other hand, are producing yarn for sale, about eighty percent of which goes to the knitting industry. That industry has a low cost of capital for entry, and it makes more sense to buy the yarn than to get into the business of producing it. For the sales yarn mill, the product is bulky relative to the invested value. The warehouse is the loading dock, and if inventory exceeds a week or two of production, the problem is severe.

And so it goes down the pipeline. There are converters, apparel manufacturers, wholesalers, retailers, all of whom hold inventory, more or less commensurate with their own particular economics of producing, warehousing, or shipping. Based upon the statistics available on the industry and the distribution system, there's probably a year's worth of cotton usage at the spindle tied up in the pipeline at any given point in time.

The wonder of this is that each of these units is responding to the principle of the conservation of capital. It will not apply capital to raw or intermediate material unless there is some reasonable prospect of a reasonable reward. Otherwise, within some period of time, there is the prospect of bankruptcy.

Normal inventory levels vary for the business units operating in the pipeline. For the sales yarn mill, it's a week or so of production. For the weaving mill, it's about a month. For an apparel manufacturer, about 6 weeks. For a retailer, about 10 weeks. At each point the profit motive controls the accumulation and decumulation of inventory, conserving the raw material being fed into spindle at the beginning of the system.

The quantity expands and contracts with business conditions, and it explains how an industry like cotton-processing can have a fifteen percent contraction in output during a recession when consumer demand might contract by 2 percent.

China's Cotton Situation

This brings me back to China. It's a country which has begun the reform of a vast legacy of central planning.

Where capital is not conserved, highly inefficient consuming enterprises can come in to existence, sometimes at the whim of government planners. Whether they are efficient or not can depend not on whether they're making money as we think of it here but on the availability of operating funds from the government And once these enterprises exist they can be enormously difficult to eliminate. Bankruptcy does not exist for state-run industry.

The following annual statistics were calculated a report of the Ministry of Internal Trade of the Peoples' Republic of China:

Domestic stock of cotton as a percent of domestic sale: 101%
Domestic stock of fabric as a percent of domestic sale: 81%
Domestic stock of apparel as a percent of domestic sale: 42%
Domestic stock of knitted underwear as a percent of domestic sale: 88%

If the U.S. pipeline holds a year of cotton consumption, China's may well hold several years worth. I suspect that's the normal legacy of a centrally planned economy. China's situation now is a hybrid one between the market and government direction.

Recall that I said for the profit-motivated industry of the United States, the ratio of sale to production over time is necessarily 1.

The average sale to production ratio for cotton yarn for most of 1997 in China was 96 percent. By historical standards, this is pretty good; at the point of yarn production, sale is only four percent less than production. For fabric production, the sale to production ratio has been running about 94 percent. For garments, it's about 97 percent.

It's been less than 1 for year after year after year. Stockpiles accumulate. What the Chinese call "triple debt", where no one can pay each other ensues. The government injects funds to clear debt chains and production resumes. This has been the recurring pattern for the last ten years.

Each point in industry represents a separate account and therefore an opportunity for inefficiency to exist. There are about 25,000 cotton mills in China. In the United States, there are about 500, and each is a prospective profit center if its future is to be assured.

The Chinese have come to understand this and have chosen to make the reform of the textile industry a top priority for 1998. Fifty-three percent of textile enterprises are losing money. The state-owned industry has been losing money for the last five years in a row. Forty percent of state-run enterprises are said to be on the verge of bankruptcy, whatever that means for a business owned by government.

It has been said that given enough operating funds, China could easily consume 5 million tons of cotton every year.

A research associate from the Chinese Academy of Social Sciences wrote a couple of years ago,

"Today, China's textile industry has around 42 million spindles, and it needs more than 100 million dan [5 million tons] each year. Although cotton production exceeded 90 million dan [4.5 million tons] in 1995, we still fall short by about 10 million dan [500 thousand tons]; cotton supply is still tight."
["An Analysis of China's Cotton Production and Policy Suggestions Based on the Supply-Demand Situation", Interview with Xu Fengxian, Research Associate, CASS Economics Institute, *Nongmin Ribao*, April 10, 1996, FBIS, July 3, 1996]

This concept of demand as a function of production capacity is a foreign one here, but in the Chinese system where lines between government and business are blurred, it is often a reality.

Once you understand the fundamental differences between the two systems, many of the strange and bizarre tales that emanate from China so often begin to make sense. I can paraphrase the following analysis of the Chinese textile industry, also from a translation of the Chinese press:

Statistics show that in 1992, China had 42 million spindles, 3.4 times as many as in 1980, for an average increase of 7.4 percent per year. during the same period, cotton textile consumption grew by only 3.3 percent per year. Production capacity grew by 1.3 times faster than demand.

The way that some Chinese academics look at this is to say that textiles became over-stocked, while raw cotton demand was ever-growing. Meanwhile, many enterprises operated way below capacity, which they consider poor efficiency.

As I said earlier, the Chinese government understands the problem. It has initiated this year as a major priority the reform of the textile industry and is said to be conducting a program in spindle reduction. Recall that they have 42 million spindles. It is the objective of the government to scrap 10 million spindles over the next three years, beginning with 4.8 million spindles in the coastal provinces in 1998.

It is impossible to know how many of the spindles have been active, nor how often, but to me the result of this is clear: There will be less capacity, and they will use less cotton.

This will not necessarily cause a surplus, because the Chinese cotton problem has as much to do with the purchase and distribution of raw cotton as it does with "excess demand", in the Chinese sense of that phrase.

The fundamental problem is simply that the purpose of business has not been about one thing and one thing only: to make money. This contradiction between the essential purposes of a government and of a business is at the heart of many Chinese problems, where government and business is so often commingled. These problems exist, too, in the handling of their crops, where government entities and business entities are often just two accounts held by the same unit.

As China moves forward with reform, there will be a tendency for the major problems in distribution of cotton to be resolved. And instead of swinging from conditions of chronic cotton shortage to chronic cotton surplus, somewhat less cotton will be demanded to satisfy the country's more stable needs than would otherwise be required. A move toward the market is a move toward efficiency.

Conclusion

A year or so ago a colleague of mine and I were talking on the phone and the conversation turned to some topical material for an upcoming speech he was scheduled to give in one of today's troubled Asian nations. Like most prospective speakers, he was open to ideas and material that would interest his audience.

I offered up some of my favorite material, which has to do with the underpinnings of efficient economic systems - principles that I talked about today with respect to the current Asian cotton situation.
Actual business models around the world vary so much from what we assume here in the west that we are surprised and perplexed when events do not conform with what we expect.

It's also because our knowledge of the present is often so poor that we become so easily confused.

Confusing, too, is how we tend to look at demand in a commodity economy in terms of an apparent consumption identity- production plus imports less export- when in reality there is a lot of waste in distribution, especially when consumption is not directed by the profit motive. This is one of the big mistakes the Malthusians make, especially the ones who don't realize how the research professionals use a lot of such identities to interpolate what the numbers are.

There is a beat and a drum that goes with the phrase "market-oriented". I truly do believe that nothing is more efficient at directing resources than the profit motive. Sure, if you could predict the future, maybe government direction or the commingling of government and business as in some of the Asian models could work better. But you can't. We barely understand the present, and can only recognize the turning points. Too many events, both big and small, can change things.

To continue on a market oriented path, whether in today's troubled Asian economies or in China, one thing is sure: commodity economies will become more efficient, and that means where there were shortages there will more frequently be abundance.

The new Asian cotton situation, at least for awhile, is one where they need less cotton.