

ESTIMATION OR GUESTIMATION: ARE THERE ANY TAKERS?

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Exchange Integrated (EI), a multinational conglomerate that trades grains, agricultural, and other commodities, is an adopter of fair value accounting ASC815, ASC820, and ASC825. The company is diversified with many assets and liabilities that qualify for fair value accounting. The financial securities vary from those traded frequently on active markets to exotic derivatives used to hedge financial and market risk. Decision and recommendations need to be made about the application of Fair Value Accounting and about the challenges of fair value judgments and required fair value disclosures.

EXCHANGE INTEGRATED

Exchange Integrated (EI) was founded in the late 1800's and has headquarters in DeKalb, Illinois. The company is a large international conglomerate that primarily produces and trades grains and other agricultural commodities. However, in recent years it has gotten into logistics, currency hedging, and financial risk management for commodities markets. The company is truly diversified. At one end of the spectrum it has divisions in mass production farming, as well as divisions that manage green energy resources. At the other end of the spectrum, EI manages a hedge fund with \$2 billion dollars of assets and liabilities.

EI reported revenues in excess of \$100 billion and earnings of \$4 billion in fiscal year 2010. Employing over 120,000 employees at 980 locations in 68 countries, the company is responsible for over 20 percent of all United States grain exports. The company also supplies about 25 percent of the United States' domestic meat market, exporting more products from South America than any other company. EI is the largest poultry producer in Asia. The majority of the hamburger used in the fast food industry in the United States passes through EI's plants. In the late 1990's,

the company shifted its strategy from agricultural commodities to higher margin endeavors such as bio fuels and research and development of advanced processing technologies. The company currently provides consulting services relating to new ingredients and new food processing methods to many customers.

Despite its large domestic presence, EI is active in countries and markets around the world. Currently, the Company is lobbying for China's membership in the World Trade Organization. In addition, efforts are being made to eliminate trade embargos with Cuba and to increase trading with Brazil. The company has invested in developing countries with the expectation that as these countries grow and per capita income increases, the company's profits will increase substantially. In the meantime, EI is trying to hedge its commodities and risk factors with international investments in futures, swaps, and other derivatives.

When the Financial Accounting Standards Board (FASB) began to shift from historical cost accounting to a fair value accounting model, EI hired valuation experts and faculty from Northern Illinois University to train its accounting staff on the use of fair value. This university team developed a diagram/ flowchart to explain the fair value hierarchy. Training sessions were immediately organized for the finance and accounting staff from divisions within EI.

THE SITUATION

On Tuesday morning after one of the training sessions, two division managers who joined the company at approximately the same time were walking toward the cafeteria while discussing the daunting tasks that they are facing relative to certain new accounting regulations.

"I believe I could eat a truck-load for lunch today," Cedric said softly to Maurette while looking over the menu. Maurette wasn't sure about the circumstances that led to Cedric's alleged furious appetite. They had just come from a meeting of divisional managers, the second in a series of three training sessions. Without asking she took for granted that the meeting they had just left was the guilty culprit. "Yes, Cedric, I am with you on that one. That last meeting laid it on the line. We have got to get busy and start investigating the valuation of the financial products we manage in our various divisions." Cedric began to select what really would turn out to be the lunch of a starving manager. "I hope we can get together soon and discuss this fair value accounting. We have to implement these new standards in our units by the end of this quarter. I have always heard that two heads are better than one, and with these kinds of deadlines, that statement is definitely true for me, I don't know about you, Maurette." "Yes, Cedric," Maurette replied. "I think we can get more done and reach better conclusions together. We may even want to bring in another colleague or two."

Cedric and Maurette selected their lunches and sat down at a table. As they began to eat, Maurette looked up and noticed Mary and Torrence entering the cafeteria. “There are Mary and Torrence. They are just getting here after that meeting?” commented Maurette. “It has been 20 minutes since we left,” said Cedric. “I would love to hear their comments about the meeting and about our charge from Darien Justice, the Vice-President of Finance and Reporting.” Torrence and Cedric’s eyes met at the same time and Cedric motioned for Mary and Torrence to join him and Maurette at the table.

“Hi, Maurette. A little hungry there I see, Cedric,” said Mary, with a chuckle. “If you are like me, I sacrificed my usual breakfast this morning and have only eaten a granola bar with a cup of coffee.” “How are you guys doing today?” asked Torrence. “We saw you two in the meeting this morning. Darien is a fantastic VP and EI is very fortunate that he is in charge of Finance and Reporting.” Everyone at the same time nodded in agreement. They all knew, however, that Darien’s charge was critical to the company and that strict, precise measurement was not an option, but a mandate.

As the four managers were completing their lunches, Cedric couldn’t let Mary and Torrence get away. Torrence has been a manager of the Steel Services Division for about nine of his sixteen years with EI. Mary has 22 years management experience with EI. She is currently manager of the Risk Management Division and has been in that position for the last 14 years. Torrence worked in a previous unit while Mary was the manager of that unit. “We were talking earlier and commented that we would like to discuss the change to Fair Value Accounting with other managers. We hope that through this discussion, we can all leave with a good working knowledge of the accounting method we need to carry forth. Are you all comfortable with that strategy?” Cedric asked with a glimmer of hope. “Oh, yes,” stated Mary. “I thought you would never ask,” was Torrence’s reply. “Great!” Maurette shouted softly and expressively. “When is a good time for us all?” asked Mary. “How about this Friday morning? Let’s say 9:30 a.m. That will give us time to get the day started before our meeting.” “Ok”, replied Cedric, Maurette, and Torrence at the same time. “We can meet in my conference room,” said Mary. “I will be sure to have morning snacks for us,” she said while directing a nod to Cedric.

On Friday morning, the group met and started with descriptions of the various divisions that they manage and the situations that require revaluation.

“I have those snacks for you, Cedric,” Mary announces while placing a basket of assorted fruit, fruit bars, and pastries in the center of the conference table. “You

remembered,” Cedric replies and gives a thumbs-up response. Tapping on the table in a judge-like, courtroom-like manner, Torrence says “I believe we all know the real reason why we are gathered here today. I will begin the discussion.”

STEEL SERVICE CENTERS

“As you know our choppy economy has really affected our Steel Service Centers in the US. The slowdown in construction, automobile production, and production of other consumer products has made a noticeable dent in our profit margin,” Torrence announced. “Yes, and I’ve read that the future still looks gloomy for the steel industry” Cedric reluctantly comments. “That’s true but I have also heard that the economy is expected to gradually recover” Maurette excitedly adds. “Correct,” Torrence replies, “the near future doesn’t look good. But, in the long-term I believe that as the economy gets stronger, the industry will rebound, and profits will increase. In fact, Darien believes that since steel production in Brazil soared 40.5% during the first eight months in 2010, this is an excellent time to invest in a medium size steel operation there. Darien did mention that he would like to know the best way to account for this investment. My response was ‘well, that’s your area of expertise!’” “I bet he didn’t like that,” responded Cedric. “You’re right. He reminded me that I have been with the company for 16 years and have expressed a desire to move up to a VP position. He hinted that the sooner I get involved and understand these types of decisions the better. He mentioned something about the fair-value option.” “Oh, I’m somewhat familiar with that. I believe the FASB recently introduced that concept,” Mary chimed in. “Doesn’t that have to do with the measurement of certain financial assets and liabilities?” said Cedric as he scratched his head. “That’s right, and it is a controversial subject,” replied Mary. “Well I’m glad someone knows what’s going on with this. I guess I need to do some research,” sighed Torrence. “Don’t worry,” assured Mary, “let me know if I can help you as you research this area.”

NATURAL GAS AND ENERGY DIVISION

Maurette jumped into the conversation. “My division trades units of natural gas and other energy related products. We are moving toward the purchase of a solar panel manufacturer, but that is another story. I am sure you all know there are active markets of natural gas, natural resources, and agricultural products. The gas futures and trades are not my central problem. If anything, we have too much information about those type of commodity prices. Several of the items that I deal with are complicated by the fact that my division has operations in multiple countries and we have to use foreign currency. Currently, we have several exchange futures contracts.”

Cedric interrupts, “Maurette, are exchange futures anything like exchange options.” “I am not sure. Let me describe them for you,” Maurette continues. You know

futures contracts are a type of derivative or financial contract where two parties agree to exchange a set of financial instruments or commodities for future delivery at a particular price. The exchange futures (FOREX) are contracts purchased to buy or sell a specific amount of a foreign currency at a particular price on a predetermined date. Our purpose for trading in these contracts is strictly to hedge against exchange rate risk. We have operations in a lot of countries around the world and we usually pay salaries and local expenses in the local currency. If we do not purchase exchange futures, we are exposed to losses when the US dollar falls in relation to other currencies.”

Mary asks, “What if the dollar rises in relation to the other currencies? Would you recognize a gain using the spot exchange rate?” Maurette responds, “We can realize cost decreases as long as we do not have to exercise the contract. However, when the contract date arrives we have to buy the currency regardless of what the spot rate is.” Cedric nods and says, “The exchange futures are different than the exchange options then. With options, we pay for the right to do something in the future but we do not have to exercise the right.”

Maurette continues. “Usually my division’s analysts do not have a problem establishing a historical cost or a fair market value for these contracts. But because of our business strategy to establish operations in developing countries, we have contracts that relate to underlying currencies that are volatile or slow trading. The contracts are mainly traded over the counter (OTC) through the Chicago Merchantile Exchange (CME). Many have common terms but the specifics of the contracts are unique to the agreement between the two parties involved. We get these reports from our brokers. I am not sure how to use this information to value the derivative or exactly what information needs to be disclosed. This one is pretty benign. However, I have some contracts where the underlying currency does not trade for days or weeks and others where the currency is volatile because of the speculators in the market.” Maurette hands out the currency futures report shown in Exhibit 1. She continues her explanation, “Specifically, we have operations in Venezuela (Bolivar), Zambia (Kwacha), and in some small African nations that require on-site negotiations and exchanges.”

SOYBEAN DIVISION

“Ok, so this fair value requirement really is a venture for all of us,” says Cedric. “But, I am up for the challenge. You all are familiar with the Soybean Division (SBD). SBD is responsible for the production of the company’s various soybean-based products. Products manufactured range from baby formula to tofu to soymilk to soy yogurt.” “Yes, and I hear that plans are being discussed for the addition of livestock feed to the product line,” Torrence adds with a look of enthusiasm. “You are absolutely correct,” Cedric replies. He continues,

“Consequently, it is imperative that the supply of soybeans is adequate in quantity, high in quality, on-time relative to delivery, and cost controlled so that target profit can be achieved.”

“I don’t know very much about soybeans,” says Maurette. “Well,” says Cedric, “soybeans are produced in large quantities in the southern and northern hemispheres. Weather information and news about crops are sought after for virtually the entire year. There is about an 80 to 120-day sowing-to-harvesting cycle. The colors of soybeans range from black and brown to gray and yellow. Beans in the United States are typically yellow.”

“So, the SBD anticipates the purchase of soybeans throughout the year?” asks Torrence. Cedric shakes his head in agreement. He continues by informing his colleagues that with target profits in view, there is always concern that the price of soybeans will increase prior to the time of required purchase. For example, adverse weather conditions, that may at times be unexpected, can result in significant disruptions in the growth cycle and reduce soybean harvest.”

“Hmm, that sounds like some risk is involved here,” Mary comments. “You got it,” says Cedric. “And, to help mitigate that risk, the company is constantly implementing hedging strategies which include entering into futures contracts.”

Cedric reveals that the SBD has entered into soybean futures contracts for the past several years. The Division must be sure that contracts and trading are appropriately timed for maximum risk reduction and cost savings. By the end of the quarter, several contracts are outstanding. He passed around a sheet that provides facts about one such contract (Exhibit 2).

RISK MANAGEMENT DIVISION

“I have been sitting and listening for a while and I feel blessed that my situations are so much less complicated than yours.” Mary says with a sigh of relief. “My division invested a lot of time and effort in developing models and information sources for our swaps, options, and futures. We deal with those types of investments all the time. They are normal situations for my managers. As a matter of fact, I am sure that I can put each of you in touch with one of our specialists. It is interesting that I am the one sitting here with questions related to what is supposed to be the simplest investment type, stocks and bonds. My division has quite a few marketable securities. As you know, these are investments that trade regularly or have maturities of less than year. Most of them trade on one of the major exchanges like NYSE or Nasdaq. However, we have a couple of special cases that have me stumped.”

Mary took a deep breath and started to describe the issues with her investments. “We own two investments in nonpublic companies. We invested in Glenco, a private owned food and beverage producer. Quoted prices are not available for Glenco and most of its direct competitors are divisions of larger conglomerates or privately held companies. However, Glenco is similar to another company traded on Nasdaq. The competitor does not trade very often. We have some data on the competitor. But, if we use the competitor’s price data, we have to make some black-box adjustments to account for some of the unique characteristics of Glenco. We contacted Glenco to see if they could assist us. The VP of Finance tries to help without giving too much proprietary information. He sent us some general forecast and prospective information. If we use this information, we would have to make entity-specific assumptions and adjustments to formulate cash flows projections.”

Torrence smiled and said, “Mary, you are right. That sounds like an interesting case that is going to require a lot of estimation. But I am sure you and your experts can handle it.” Mary replied, “You may be right, but there are a lot of choices and decisions to be made before we decide on a valuation. Darien wants to know ‘the best’ way to account for each of these investments.”

Mary continues, “The other investment I am having trouble with is an unsecured “high yield” bond held in Hasbether Transportation Company. We do a lot of business with Habethere. The bond rate is a floating rate determined by making some risk adjustments to the Moody’s Aaa rates. Interest is paid semiannually and the bond has a call option. When we bought the bond, the company was doing well and the bond was actively traded. Lately, the trading volume has decreased significantly. Hasbether is becoming more and more dependent on our business units for its survival, and I think the markets are becoming concerned.”

Cedric has the last word, “By the time all this fair value conversion is over, I think we are going to long for the days of old, reliable historical costs!”

EXHIBIT 1

Currency Futures Report

Futures	Foreign Exchange
Ticker Symbol	Clearing = EC; Ticker = EC; GLOBEX = 6E; (100 Threshold)
Sample Quote	U.S. Dollar per Euro. Sample quote = 1.1345
Contract Size	175,000 Euro
Minimum Price Fluctuation (Tick)	Floor: Regular – 0.0001 = \$14.50; Calendar Spread – 0.00005 = \$7.25; All or None – 0.00005 = \$7.25 GLOBEX; Regular – 0.0001 = \$15.50; Calendar Spread – 0.00005 = \$7.75;
Price Limit	Floor: No limits GLOBEX; No limits
Contract Listing	Month Six months in the March Quarterly Cycle. Mar, Jun, Sep, Dec.
Trading Hours	Floor: 7:20 am – 2:00 pm LTC (9:16 am) GLOBEX: Mon – Thurs 5:00pm – 4:00 pm
Last Trading Day	Trading ceases at 9:16 am Central Time on the second business day immediately preceding the third Wednesday of the contract month (usually Monday)
Final Settlement Rule	Final settlement price is determined by the Trading Floor Pit Committee. Contract is physically delivered.
Position Limits/Accountability	A person owing or controlling more than 10,000 contracts net long or net short in all contract months combined will provide, upon request, information regarding the nature of the position, trading strategy, and hedging information. For options, the option position accountability rule applies.
Trading Venue	Floor, GLOBEX

EXHIBIT 2

**Soybean Product Division
Facts Related to Soybean Futures**

- Contract months are January, March, May, July, September, and November.
- Trading can be implemented via open auction or electronically.
- The Division anticipates the purchase of 1,000,000 bushels of soybeans during mid-January to early February of the next year.
- In anticipation of increasing soybean prices, the Division entered into a standard futures contract on November 1 of the current year.
- The contract expires February 28 of the following year.
- The spot price and the contract price per bushel is \$9.98.
- Economists' predictions of soybean prices for early next year range from \$9.76 to \$11.00 per bushel.
- FYE is December 31.

ADDITIONAL READINGS

Levisohn, B. (September 11, 2010). How to Play the Volatile Currency Markets.
The Wall Street Journal,
<http://online.wsj.com/article/SB10001424052748704362404575479671544455764.html>