



Accounting for Your Marketing Results

FBS 2017 USER CONFERENCE

Course Outline

- Types of hedges
- Tax and GAAP reporting differences
- Definitions
- Recommended accounts/centers
- Hand's on case studies (using FBS software)
 - Crop farm
 - Livestock feeding
- Incorporating cost analysis by period

Purpose of a Hedge

- *Provide a change in value of the hedging instrument in the opposite direction of the hedged item.*
- For tax purposes, the gains or losses on from hedging activities are recognized when hedges are lifted
- For accounting purposes, hedging gains/losses are recognized in the period the gains or losses occur
 - Hedging is consider normal business operation so should be matched to gross revenue and expense

Hedging Types and Treatment

- Three types of hedges
 - Fair value
 - Cash flow
 - Net investment hedge/Foreign currency transactions
- Financial Statement treatment
 - Income Statement -- depends on the hedging type. May be included in net income or may be excluded from net income.
 - Balance Sheet -- No difference in presentation between the two methods.

Definitions

- **Realized gains or losses from hedging** – are computed based on closed hedging transactions.
 - Realized gains and losses appear in a brokerage statement's closed equity position.
- **Recognized gains or losses from hedging** – are the amounts that flow through the income statement or statement of comprehensive income whether resulting from realized or unrealized gains or losses.

Definitions (Continued)

- **Unrealized gains or losses from hedging** – are based on the **mark-to-market** rules and value hedging transactions as of the date of the financial statement.
 - Appear in a brokerage statement's open equity position
 - May be **recognized** as Other Comprehensive Income but not Net Income in respect to Cash Flow Hedges

Definitions (Continued)

- **Other comprehensive income (OCI)** – is **unrecognized** income that falls outside the scope of net income, and is considered part of an entity's total comprehensive income.
 - Includes the **unrealized** gains or losses from cash flow hedges that will at some point in the future be reclassified into net income.

Definitions (Continued)

- **Accumulated other comprehensive income (AOCI)** – is the accumulated amount of OCI until reclassified into retained earnings (via the income statement).
 - Unrealized gains and losses are accumulated here for cash flow hedges until the hedged commodity is either sold or priced (and/or the hedge is lifted).

Types of Hedges

- Fair Value Hedge
 - Used to offset changes in the fair value of items with fixed prices
- Cash Flow Hedge
 - Used to establish a fixed price when future cash flows could vary due to changes in prices

Hedge Flow Chart

Fair Value Hedge

- All gains or losses, whether realized or unrealized flow through net income.

Cash Flow Hedge

- Unrealized gains or losses flow into OCI.
- When hedge is lifted or converted to fair value, realized gain/loss is reflected in net income.
- Accumulated unrealized gain or loss is reclassified to net income

Rule of Thumb

- If inventories are valued at market, treat as **Fair Value Hedge**
 - (“Finished goods” inventory)
- If inventories valued at cost, treat as **Cash Flow Hedge**
 - (“Work In Process” inventory)
 - However, you can elect to treat all “Cash Flow Hedges” as Fair Value Hedges

Applications to Agriculture

Fair Value Hedges

- Stored crop inventories
- Newly-weaned animals
- “Finished Goods @ Market”
- Gain & Loss goes straight through Income Statement

Cash Flow Hedges

- Growing crop inventories
- Growing animals
- “WIP @ Cost”
- Gain & Loss goes to “Other Comprehensive Income”
- Then moved to Income Statement when items are sold

Accounts Required

- Hedging Asset
 - One account for **each** segregated brokerage account
- Inventory Asset
 - One account for crops; one for livestock
- Hedging Gain/Loss Income
 - One account for **each** product or commodity
- Unrealized Gain/Loss Income
 - One account for **all** products or commodities
- Inventory Market Value Gain/Loss Income
 - One account for **each** product or commodity

Additional Cash Flow Hedge Accounts

- Other Comprehensive Income
 - For recording unrecognized income
 - One account for **each** product or commodity
- Accumulated Other Comprehensive Income
 - **Equity** account for **each** product or commodity
 - In farmer terms, “unrealized gain”
 - Use Quantity field to track balance

Account Recap

Account Name	Type	Comments
Hedging Equity	Asset	One account for each trading fund
Inventory Asset	Asset	One account for crops/livestock <ul style="list-style-type: none">• Stored Crop Inventories• Feeder Livestock Inventories
Hedging G/L	Income	One account for each commodity <ul style="list-style-type: none">• Lean Hog G&L• Corn G&L• Soybean Meal G&L
Unrealized Hedging G/L	Income	Only one account required
Inventory Market Value G/L	Income	Only one account required
Commissions	Expense	Only one account required

Cash Flow Hedge Account Recap

Account Name	Type	Comments
Other Comprehensive Income (OCI)	Income	One account for each commodity <ul style="list-style-type: none">• Lean Hog OCI• Corn OCI• Soybean Meal OCI
Accumulated Other Comprehensive Income (AOCI)	Equity	One account for each commodity <ul style="list-style-type: none">• Lean Hog AOCI• Corn AOCI• Soybean Meal AOCI

Centers Required

- **Profit Center**
 - Type F/C
 - Farm Financial Standards Managerial Accounting concept
 - Used to post “final” G&L
 - Alternative to allocating G&L to specific production centers or groups
- **Or Crop Marketing (M) Center for Crops**
- **“Delivery Period” Centers for Livestock**
 - Type F
 - By Year / Quarter or Month
 - Used to segregate and “park” G&L on the balance sheet by delivery period

Delivery Period Centers

- Fair Value Hedges
 - Post **directly** to the product's Profit or Marketing Center
- Cash Flow Hedges
 - Post to F Centers corresponding to delivery period
 - Center can be used for all commodities matched to sales in delivery period
 - Examples (single flow):

Delivery Period	Examples
By Year	"HH18" for hog hedges in 2018
By Quarter	"20181" for first quarter of 2018
By Month	"201901" for January 2019

Delivery Period Centers

- Cash Flow Hedges
 - Examples (multiple flows):

Delivery Period	Examples
By Quarter (Cattle)	“C191” for first quarter of 2019
By Quarter (Hogs)	“H191” for first quarter of 2019
By Month (Cattle)	“C1901” for January 2019
By Month (Hogs)	“H1901” for January 2019

Marked-To-Market

- Fair Value Hedges—Hedging Gains
- (Auto-reversing) Accrual (or MV) journal entry

Fair Value Hedging Gains

Category	Debit	Credit
Hedge	Hedging Asset	Unrealized Hedging G/L Income
Inventories	Inventory Market Value G/L Income	Crop Inventory Asset

Marked-To-Market

- Fair Value Hedges—Hedging Losses
- (Auto-reversing) Accrual (or MV) journal entry

Fair Value Hedging Losses

Category	Debit	Credit
Hedge	Hedging Gain/Loss Income	Hedging Asset
Inventories	Crop Inventory Asset	Inventory Market Value G/L Income

Accruing Closed Cash Trades

- Should be done monthly
- **Management** journal entries
- Reverse cash/tax entries for closed positions
- Record **positive** quantity* in Other Comprehensive Income account

*Optional

Center	Debit	Credit
Delivery Period	Hedging Gain	Other Comprehensive Income
Delivery Period	Other Comprehensive Income	Hedging Loss

Matching Hedging Gain With Animals Sold

- Should be done monthly
- Management journal entries
- Record **negative** quantity* in “Accumulated Other Comprehensive Income” account

* Optional

Center	Debit	Credit
Delivery Period	Accumulated Other Comprehensive Income	
Profit Center		Other Comprehensive Income

Matching Hedging Loss With Animals Sold

- Should be done monthly
- Management journal entries
- Record **negative** quantity in “Accumulated Other Comprehensive Income” account

Center	Debit	Credit
Delivery Period		Accumulated Other Comprehensive Income
Profit Center	Other Comprehensive Income	

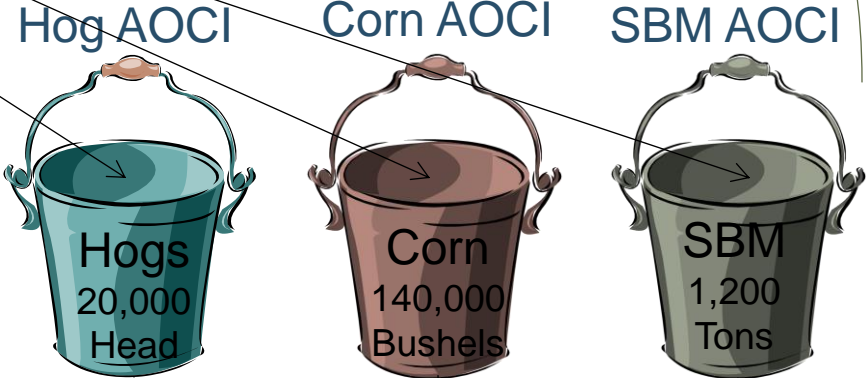
December 2019

July 2020

Reverse Tax Hedging G&L

July 2020 Delivery Period Center

Accumulated Other Comprehensive Income Equity Accounts



Close Out to Other Comprehensive Income Accounts

Hog OCI

Corn OCI

SBM OCI

Feed OCI Entries

- Closing position
 - Zeroes out hedged feed balance
 - Realizes hedging G/L
 - Parks G/L in Delivery Period Center

(GSF13) Change Journal Entry

Entry Number: 112916
Date: 06/27 /2013
Vendor: ADM Investor Services
Amt. to Balance: 0.00

Select Macro and/or Vendor
Report type: 2 = Accrual
 Save entry as macro

Line	Acct.	Con.	Div.	Amount	Description	Quantity				Ration	Locat.
1	36012	H01306	0	-157,900.00	HOG CORN HEDGES	370,000.000			Don't Feed	CORN LH	
2	10410	0	0	-157,900.00		0.000					

10410 Hedge Acct LV-O TE Ho 0 Unallocated/Offset 0 GSC Livestock

Save Cancel Print Insert Line Delete Line F2 Add Division Delete Entire Entry

Feed OCI Entries

- “Reversing” entry
 - Management level (one level higher than last entry)
 - Reverse Hedging Realized G/L account
 - Record to OCI Unrealized G/L account

(GSF13) Add Journal Entry

Reversing Entry

Entry Number

Date

Vendor

Amt. to Balance

Select Macro and/or Vendor

Report type

Save entry as macro

Line	Acct.	Con.	Div.	Amount	Description	Quantity													
1	36023	H01306	0	157,900.00	REVERSE	-370,000.000													
2	36112	H01306	0	-157,900.00	REVERSE	370,000.000													

36112 OCI-Corn-Hogs H01306 Hogs June 13 Hedges 0 GSC Livestock

Save Cancel Print Insert Line Delete Line Toggle Scanner

Cash Flow Hedge OCI Entries

- For trades to be recognized/allocated to another time period
 - **User-Defined Accounting Report** for G/L Account
 - Recap by Center
 - Accrual level
 - Note balance for each combination of AOCI Account/Delivery Period Center not in the current month

Cen.	Description	Unit Price	Ave. Wt.	Price/Wt.	Quantity	Weight	Amount
H01306	Hogs June 13 Hedges	0.0000	0.00	0.000	0.000	0.000	-241,660.00
H01307	Hogs July 13 Hedges	0.0000	0.00	0.000	0.000	0.000	-313,820.00
		0.0000	0.00	0.000	0.000	0.000	-555,480.00

Cash Flow Hedge OCI Entries

– Reverse to Accumulated OCI

- Management level
- Reverse accumulated amount original G/L Income account to the Unrealized G/L Income account
- Use the Delivery Period Center from original entry
- Offset to AOCI Equity account

(GSF13) Add Journal Entry

Reversing Entry

Entry Number

Date

Vendor

Amt. to Balance

Select Macro and/or Vendor

Report type

Save entry as macro

Line	Acct.	Cent.	Div.	Amount	Description	Quantity													
1	36023	H01307	0	313,820.00	REVERSE	0.000													
2	28111	H01307	0	-313,820.00	REVERSE	0.000													

28111 AOCI-Lean Hogs H01307 Hogs July 13 Hedges 0 GSC Livestock

Save Cancel Print Insert Line Delete Line Toggle Scanner

Cash Flow Hedge OCI Entries

– Transaction Recap

Date	Acct.	Acct Desc.	Cen.	Cen. Desc.	Debit Amt.	Amount	Credit Amt.	Description	Entry Type
06/27/2013	36011	Gain/Loss Hedging-L	H01307	Hogs July 13 Hedges	313,820.00	-313,820.00	0.00		Journal - Financial
06/27/2013	36023	Unrealized G/L Hogs	H01307	Hogs July 13 Hedges	0.00	313,820.00	313,820.00	REVERSE	Journal - Mngt.
06/27/2013	28111	AOCI-Lean Hogs	H01307	Hogs July 13 Hedges	313,820.00	-313,820.00	0.00	REVERSE	Journal - Mngt.
07/31/2013	28111	AOCI-Lean Hogs	H01307	Hogs July 13 Hedges	0.00	313,820.00	313,820.00	APPLY	Journal - Mngt.
07/31/2013	36111	OCI-Lean Hogs	H01307	Hogs July 13 Hedges	313,820.00	-313,820.00	0.00	APPLY	Journal - Mngt.
					941,460.00		627,640.00		
						-313,820.00			

Cost Analysis Example

	ACTUAL	% of	ACTUAL	ACTUAL
	VALUE	TOTAL	PER CWT	PER HEAD
NET SALES				
Market Hog Sales	5,903,114.48	98.34	50.92	142.67
Sort Adjustment	147,110.74	2.45	1.28	3.60
Hedging Gain/Loss	605,331.48	10.08	5.15	14.37
Low Value Hogs	1,163.15	0.02	48.77	145.39
No Value Hogs	26,295.91	0.44	21.41	46.13
Dead On Arrival	23,299.93	0.39	51.49	145.62
Freight & Trucking	-122,066.82	-2.03	-1.04	-2.90
Insurance	-27,830.11	-0.46	-0.24	-0.66
Marketing Sales Exp.	-30,467.12	-0.51	-0.26	-0.72
Futures Commissions	-113,879.93	-1.90	-0.97	-2.70
Options Premiums	-409,212.50	-6.82	-3.48	-9.72
Total NET SALES	6,002,859.21	100.00	51.03	142.53
COST OF SALES				
Purchased Pigs	1,749,967.44	95.86	286.20	38.81
Inv. Adjustment	75,547.04	4.14	0.64	1.79
Total COST OF SALES	1,825,514.48	100.00	15.52	43.35
FEED				
Corn-Energy	1,262,018.03	45.05	10.73	29.97
Protein	998,103.72	35.63	8.49	23.70
Base Mix/Other	259,443.63	9.26	2.21	6.16
Complete	181,509.62	6.48	1.54	4.31
Medication	127,856.55	4.56	1.09	3.04
Feed GMD	191,985.32	6.85	1.63	4.56
Feed Adjustment	63,305.98	2.26	0.54	1.50
Feed Hedge	-282,918.42	-10.10	-2.41	-6.72
Total FEED	2,801,304.43	100.00	23.81	66.52

Analysis Alternatives

- By ledger account/delivery period center
- Through contracts / delivery period center
- Through contracts / specific group/project
- Through contracts / specific ingredient/input
- Through contracts / specific ingredient / input / DTN
- Flow feed hedges through cost of goods
- Flow feed hedges & livestock hedges through closeouts

Feed / Fuel Contracts

- Ignore center
- Match on product

(BFH12) Change Contract

Active

Number

Description

Contract type

Product

DTN Contract

TA+ Quantity

Number of Contracts

Quantity per Contract LBS

Total Contract Quantity LBS

Conversion factor

Price/Initial payment

Elevator/Vendor

Feed

Project

Delivery date

Creation date

Quarter Used

Quantity Delivered LBS

Setup Contract Types

OK Cancel

Crop Hedges

- Placed through crop marketing center
- Can be matched against crop project

(BFH12) Change Contract

Active

Number: 40548

Description: Soybean April 11

Contract type: 2 Contract

Product: 2 Soybeans

DTN Contract: SOYBEANS May 2011

TA+ Quantity: 1 Quantity

Number of Contracts: 1.00

Quantity per Contract: 2,500.00 BU

Total Contract Quantity: 2,500.00 BU

Conversion factor: 1.00

Price/Initial payment: 10.0800 0.00

Elevator/Vendor: GOLD STAR FS, INC.

Crop center: 2 Soybean Inventory

Project: 0 10 Soybean Marketing (102_SI)

Delivery date: 04/15/2011

Creation date: 08/19/2010

Quarter Used: 2nd Quarter 2011

Quantity Delivered: 0.00 BU

OK Cancel

Setup Contract Types

Livestock Hedges

- Placed through “delivery center” or profit center

(GSF12) Change Contract

Active

Number

Description

Contract type

Product

DTN Contract

TA+ Quantity

Number of Contracts

Quantity per Contract Pounds

Total Contract Quantity Pounds

Conversion factor

Price/Initial payment

Elevator/Vendor

Livestock center

Project

Delivery date

Creation date

Quarter Used

Quantity Delivered Pounds

Setup Contract Types

OK Cancel

Account Settings for Contracts

- Note Integration types

Number	Description	Active	Type	Inc/Bal	Int. Type
36011	Gain/Loss Hedging-Lean Hogs	A	C	Y	J-1
36012	Gain/Loss Hedging-Corn-Hogs	A	A	Y	H-1
36013	Gain/Loss Hedging-Corn-Basis	A	A	Y	H-1
36014	Gain/Loss Hedging-Soybean Meal	A	A	Y	H-1
36015	Gain/Loss Hedging-Other	A	A	Y	
36016	Gain/Loss Hedging-Live Cattle	A	C	Y	J-1
36017	Gain/Loss Hedging-Corn-Cattle	A	A	Y	H-1
36018	Gain/Loss Hedging-Other-Cattle	A	A	Y	
36019	Gain/Loss Hedging-Fuel	A	A	Y	F-1
36020	Corn Marketing Contract	A	J	Y	E-1

Options

- On open or close of position?
- For long puts and calls use positive quantity
- For short puts and calls use negative quantity

Short Options Entry

(GSF12) Add Contract

Active

Number

Description

Contract type

Product

DTN Contract

TA+ Quantity

Number of Contracts

Quantity per Contract BU

Total Contract Quantity BU

Conversion factor

Price/Initial payment

Elevator/Vendor

Feed

Project

Delivery date

Creation date

Quarter Used

Quantity Delivered BU

OK Cancel

Entry Number

Date /

Vendor

Amount to Balance

Line	Acct	Cen.	Div.	Amount	Description	Quantity
1	36012	H01212	0	46,375.00	98814 c puts 7/24	-300,000.00
2	65030	H01212	0	699.60		0.000
3	10410		0	45,675.40		0.000

(GSF12) Change Contract

Active

Number

Description

Contract type

Product

DTN Contract

TA+ Quantity

Number of Contracts

Quantity per Contract Bu

Total Contract Quantity Bu

Conversion factor

Price/Initial payment

Elevator/Vendor

Feed

Project

Delivery date

Creation date

Quarter Used

Quantity Delivered Bu

OK Cancel

Number	Date	Vendor	Contract	Contract Desc.	Quantity	Amount	Balance	Unit Price
	02/28/2012	ADM Investor Services	CHP13001	Mar 12 corn 580 pu	-300,000.00	-60,000.00	-300,000.00	0.2000
1594	07/24/2012	ADM Investor Services	CHP13001	Mar 12 corn 580 pu	-300,000.00	46,375.00	0.00	
				Current Position	0.00	0.00		

- Contract option
- Matching against feed

Set Preferences

Description	Value
OPT: Contract Centers	

Current Row: 53 of 128

Valid values: 5 - Y/N (Default = N) Used by: TA+ Input
Desc: Yes = match contract on vendor only. 5 values: corn/soybeans/wheat/cotton/hogs

Print

Lower of Cost/Market Entries

– Updates from DTN

Market Price by Center				Market Price by Project				
Center	Date	Market	Cost	Inventory	Unit	Inv. @Market	Inv. @Cost	Difference
1 Corn Inventory	01/31/2010	3.50	3.35	78,298.32	BU	274,044.12	262,444.48	11,599.64
	02/28/2010	3.50	3.35	78,298.32	BU	274,044.12	262,444.48	11,599.64
	03/31/2010	3.50	3.35	78,298.32	BU	274,044.12	262,444.48	11,599.64
	04/30/2010	3.60	3.35	78,298.32	BU	281,873.94	262,444.48	19,429.46
	05/31/2010	3.70	3.35	78,298.32	BU	289,703.79	262,444.48	27,259.31
	06/30/2010	3.70	3.35	78,298.32	BU	289,703.79	262,444.48	27,259.31
	07/31/2010	3.80	3.35	78,298.32	BU	297,533.61	262,444.48	35,089.13
	08/31/2010	3.70	3.35	78,298.32	BU	289,703.79	262,444.48	27,259.31
	09/30/2010	3.60	3.35	78,298.32	BU	281,873.94	262,444.48	19,429.46
	10/31/2010	3.60	3.35	78,298.32	BU	281,873.94	262,444.48	19,429.46
	11/30/2010	3.60	3.35	78,298.32	BU	281,873.94	262,444.48	19,429.46
	12/31/2010	3.80	3.35	78,298.32	BU	297,533.61	262,444.48	35,089.13
2 Soybean Inventory	01/31/2010	9.40	4.90	15,026.32	BU	141,247.40	73,622.63	67,624.77
	02/28/2010	9.40	4.90	15,026.32	BU	141,247.40	73,622.63	67,624.77
	03/31/2010	9.40	4.90	15,026.32	BU	141,247.40	73,622.63	67,624.77
	04/30/2010	9.40	4.90	15,026.32	BU	141,247.40	73,622.63	67,624.77
	05/31/2010	9.40	4.90	15,026.32	BU	141,247.40	73,622.63	67,624.77
	06/30/2010	9.40	4.90	15,026.32	BU	141,247.40	73,622.63	67,624.77
	07/31/2010	9.40	4.90	15,026.32	BU	141,247.40	73,622.63	67,624.77
	08/31/2010	9.40	4.90	15,026.32	BU	141,247.40	73,622.63	67,624.77
	09/30/2010	9.40	4.90	15,026.32	BU	141,247.40	73,622.63	67,624.77
	10/31/2010	9.40	4.90	15,026.32	BU	141,247.40	73,622.63	67,624.77
	11/30/2010	9.40	4.90	15,026.32	BU	141,247.40	73,622.63	67,624.77
	12/31/2010	9.40	4.90	15,026.32	BU	141,247.40	73,622.63	67,624.77

Update
from DTN

What's Missing?

- Groups / Projects
- Automated managerial accounting/WIP adjustments and overhead allocations
- Commissions
- Reversing MTM journal entries?
- Contract module
- Integrated inventories