Commodity Challenge

Section II: Basic Pricing Tools

Chapter 14: Margins

Learning objectives

- Learn about margins and the difference between initial and maintenance margins

Key terms

Futures Commission Merchant (FCM): Individuals or companies that solicit or accept orders for the purchase or sale of any commodity for future delivery. More commonly known as a broker.

Margin: The security deposit or performance bond needed to participate in the market.

Initial margin: The amount of margin required by the broker when a futures position is opened.

Maintenance margin: The minimum amount of equity that must be maintained in the account.

Mark-to-market: The daily process by which the clearinghouse values all open positions.

Capital: Money used for initial margin plus deposits or withdrawals.

Equity: Capital plus cumulative position gains or losses.

Margin call: A request from a brokerage firm to bring margin deposits back up to initial levels.

Leverage: The ability to control large dollar amounts of a commodity with a comparatively small amount of capital.

Understanding Margins

Everyone who trades futures or sells options must post margin. Margins are **not** down payments-they are performance guarantees.

Margin levels are set by exchanges and typically equal **5-15%** of contract value. The following figures used here have been made up for illustration purposes. Check the exchanges for the most recent margin requirements.

Example:

- Corn futures = $5.00/bu.
- Contract value = $25,000 ($5.00 * 5,000 bushels)
- Margin requirement = $2,000/contract

Margins include:

- **Initial margin** — the amount you must deposit to open a position.
- **Maintenance margin** — the minimum balance you must keep; if your account falls below this, you get a margin call.

Hedgers and speculators may face different margin requirements.

Margin Example: Elevator hedging the purchase of 10,000 bushels of corn.

Elevator sells **2 contracts** (10,000 bushels) of December corn at **$5.00**.

Initial margin: **$2,000/contract or $4,000 total for two contracts**
Maintenance margin: **$1,500/contract or $3,000 total for two contracts**

Day 1 The position is established

The original capital investment and account equity in the margin account are equal: $4,000

Day 2 Futures prices decrease to $4.90 per bushel.

Daily **Gain**/Loss: +$1,000 ($0.10 per bushel × 10,000 bushels)

Cumulative gain/loss: $1,000

Capital: $4,000

Equity: $5,000

Day 3 - Price rises to $4.93

Daily Gain/**Loss**: -$300 ($0.03 per bushel × 10,000 bushels)

Cumulative gain/loss: $700

Capital: $4,000

Equity: $4,700

Day 4 – Big news sends corn prices 25 cent higher

Daily Gain/**Loss**: -$2,500 ($0.25 per bushel × 10,000 bushels)

Cumulative gain/loss: $1,800

Capital: $4,000

Equity: $2,200 → below maintenance of $3,000 → margin call

Deposit of $1,800 required to restore equity to $4,000

Leverage

Margins allow traders to control large positions with relatively little capital.

Example:

- 6 corn futures contracts = 30,000 bushels
- value at $5.00/bu = **$150,000**
- initial margin = **$12,000** ($2,000 per contract * 6 contracts)

A 1% price increase (5¢/bu) → **$1,500 gain**, or **12.5% return** on margin.

Leverage magnifies both gains and losses.

Key points:

- Margins are not costs—they are refundable deposits.
- Losses and gains are settled daily (“mark-to-market”).
- Because margin is jus 5-15% of the underlying value, futures contracts are highly leveraged—a few cents can mean hundreds of dollars.
- Margin calls happen automatically when your balance drops below maintenance.

Exercise #14: Understanding margin calls in futures trading

Assume:

- Initial margin = **$2,500/contract**
- Maintenance margin = **$2,000/contract**
- You sell **2 May soybean futures contract** and deposit **$5,000**

Consider the following changes in soybean prices after posting your original $5,000 into a margin account. Ask yourself, “Is my equity now below my maintenance margin level?” In other words, “Will you have a margin call?”

Day 1: May soybean futures decrease by 8 cents per bushel.

Day 2: May soybean futures decrease another 3 cents per bushel.

Day 3: May soybean futures increase by 14 cents per bushel.

Day 4: May soybean futures increase another 9 cents per bushel.

