BASIS: GENERALITIES

• Spot and futures tend to move together.
• Futures price converges to spot price (at delivery location) as maturity gets closer.
contract month

implicitly calculated using "nearby"
contracts and for each location

- Futures Price - Futures Price - Futures Price - Futures Price - Futures Price

Basis = Local Spot Price

FUTURES: DEFINITIONS
+ Storage Cost
Current Futures Price > Current Spot Price

Location:
For storable commodities at delivery

Basis: Generalizes
Riskless Profit = \$2.50/\text{bu} - \$2.00/\text{bu} - \$0.20/\text{bu} = \$0.30/\text{bu}

Strategy to make riskless profits:
- Deliver commodity and get paid \$2.50/\text{bu} according to futures contract.
- July:
  - Buy spot at \$2.00 and store
  - Sell July futures for \$2.50/\text{bu}
- Now:
  - Storage cost = \$0.20/\text{bu}
  - Spot = \$2.00/\text{bu}

Suppose: July Futures = \$2.50/\text{bu}

Why Futures > Spot + Storage Cost?

BASIS: GENERALITIES
Hence:

Basis converges to zero (at delivery)

Futures price converges to spot price

Basis: Generalities
- Basis > Storage Cost
  - Hence:

  + Storage Cost
  
  Current Futures Price > Current Spot Price

  For storable commodities at delivery location:

  **Basis: Generalities**
BASIS: GENERALITIES

- Basis reflects factors that affect local cash price relative to futures price at delivery point
  - Local supply and demand factors
    - Yield
    - Quality
    - Storage availability
    - Processing capacity
    - Railcar availability
    - Consumption
Conversion at expiration
Seasonal spot price
- Livestock varies, but follows the tendencies
- Narrow until the next harvest
- Grains typically widen at harvest then patterns
- Basis generally follows seasonal

BASIS: GENERALITIES
It's easy to predict futures prices alone, but it's much harder to predict spot prices. Hence, spot prices and futures prices tend to move up and down together.

**Basis Generalizes**
Difference from the Average, 1995-2004
Distribution of Spot Price and Basis for ISM Lean Hogs.