### Price determination
- is the broad forces of supply and demand establishing a market clearing price for a commodity.

### Price Discovery
- is the process by which buyers and sellers arrive at a specific price for a given lot of produce at a given location for a specific time period.

### Price Discovery
- A human process, subject to relative bargaining power of the buyer and seller.
- Two stage process
  - Evaluate S&D and Pe
  - Estimate the price for the specific trade.
Price Determination and Price Discovery

![Graph showing supply and demand curves]

Price Discovery Concerns Under Alternative Price Determination Conditions

<table>
<thead>
<tr>
<th>Demand</th>
<th>Supply</th>
<th>Strong</th>
<th>Weak</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large</td>
<td>Potential</td>
<td>Probable</td>
<td></td>
</tr>
<tr>
<td>Small</td>
<td>Unlikely</td>
<td>Potential</td>
<td></td>
</tr>
</tbody>
</table>

Price discovery systems

- Individual negotiations
  » Also called private treaty sales or direct trade
  » Fed cattle, hogs, grain
- Organized central markets
  » Auctions, terminal, electronic
- Formula pricing
  » Transaction price base on a related price
  » Eggs, wholesale meat, feeder pigs, hogs and cattle
Price discovery systems

- Bargained prices
  - Fruits, vegetables, milk
- Administered pricing
  - Government programs

Centralized pricing

- All buyers and sellers in one place at one time.
  - Full and immediate information
  - Competitive bidding
  - Equalizes market power
  - Transaction cost
  - Physical movement of product

Decentralized Pricing

- One-to-one negotiations
  - Reduced transportation cost
  - Reduced transaction cost
  - Depends on skills and information
  - Higher search cost
## Hybrid markets

- **Electronic markets**
  - Centralized pricing
  - Decentralized product movement
- **Examples**
  - Satellite auctions
  - Electronic auctions
  - Tel-o-auction
  - E-commerce

## Electronic markets

- **Marketing agency**
  - Lends credibility
  - Settle disputes
  - Aids collection and payment
- **Examples**

## Performance issues

- “Least cost” method of price discovery
- Effect of the mechanism on price behavior
- Marketing v. pricing efficiency
Information and markets

> Price reporting
  » Role of the government
  » Collection and dissemination and timely reporting of prices that were discovered.
  » Other private treaty buyers and sellers incorporate new information into their negotiation.
  » Facilitates formula pricing

Price reporting

Iowa Dept of Ag and Land Stewardship

> Regional cash grain prices
> Auction market prices

Price reporting

USDA Agricultural Marketing Service

Terminal and large auctions

> Farmer to packer trade
  » IA-S. MN Hogs
  » Western Cornbelt pork carcass
  » Iowa Direct Trade Cattle

> Meat trade
  » Boxed beef
  » Carlot pork prices
Market Regulation

➢ Grain Inspection, Packers and Stockyards Administration
  » GIPSA
  » Division of USDA
  » Regulation of markets and trade
  » Not price reporting

Mandatory Price Reporting

➢ Passed Congress October 1999
➢ Scheduled to start January 30, 2001
  » Delayed due technical difficulties
➢ Started April 2, 2001
  » Little or no beta test
  » Technical difficulties
  » One report – no backup plan
➢ Was scheduled to end Oct 2004, but was extended and is being reviewed in 2005.

91 reports

➢ Time, region, commodity, and type of purchase
➢ Hogs, 15 reports
➢ Cattle, 43 reports
➢ Lamb, 8 reports
➢ Boxed-Beef and Lamb, 25 reports
➢ NOT wholesale pork
Procurement Method, MPR

- IA/MN Daily Prior Day PURCHASE SWINE
  - Negotiated, Packer Owned, Packer Sold
  - Market Formulas (Swine or Pork, Other)
  - Other Purchase Agreement

- National Daily Prior Day SLAUGHTERED SWINE

- National Weekly Direct Slaughter
  - Cattle - Formulated and Forward Contract - Domestic
  - Formulated and Forward Contract - Import
  - Packer Owned Cattle
  - Negotiated Purchases


Packer Procurement Method, 1999

<table>
<thead>
<tr>
<th></th>
<th>Hogs</th>
<th>Cattle</th>
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<tbody>
<tr>
<td>Cash market</td>
<td>27%</td>
<td>65%</td>
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<tr>
<td>Formula</td>
<td>32</td>
<td>20</td>
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<tr>
<td>Futures-based</td>
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<td>4</td>
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<tr>
<td>Risk share</td>
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<td>3</td>
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<tr>
<td>Packer owned</td>
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<td>5</td>
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<tr>
<td>Other</td>
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Percent of US Hogs Sold Through Various Pricing Arrangements, January

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<tr>
<th></th>
<th>1999</th>
<th>2000</th>
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<tbody>
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<td>41.4</td>
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<td>8.5</td>
<td>5.7</td>
<td>11.8</td>
<td>5.7</td>
<td>7.2</td>
<td>10.3</td>
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<tr>
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<td>22.8</td>
<td>8.6</td>
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<td>Packer-sold</td>
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<td>2.2</td>
<td>2.1</td>
<td>2.1</td>
<td>2.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Packer-owned</td>
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<td>18.1</td>
<td>17.1</td>
<td>21.4</td>
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<tr>
<td>Negotiated/spot</td>
<td>35.8</td>
<td>25.7</td>
<td>17.3</td>
<td>16.7</td>
<td>13.5</td>
<td>11.6</td>
<td>10.6</td>
</tr>
</tbody>
</table>
Summary

- Price discovery methods
  » Centralized v. decentralized
  » Pricing v. marketing efficiency
- Price reporting
- Trends in methods