Demand
Demand

Demand is NOT volume sold

Per capita consumption is NOT demand
Per capita consumption = (Domestic Production + Imports – Exports + Cold Storage Adjustments ) / Population
All quantity values; no prices in derivation!
Demand:
End Consumer (Retail + Food Service)
RETAIL ALL FRESH BEEF DEMAND INDEX
Second Quarter, Using CPI 2000=100

Data Source: Bureau of Labor Statistics, USDA-ERS, Compiled & Analysis by LMIC
Livestock Marketing Information Center
Index Value

RETAIL PORK DEMAND INDEX
Second Quarter, Using CPI 2000=100

Index Value

Data Source: Bureau of Labor Statistics, USDA-ERS, Compiled & Analysis by LMIC
Livestock Marketing Information Center
RETAIL PRICE COMPARISON

Monthly

Cents Per Pound

Data Source: Bureau of Labor Statistics & USDA-ERS
Livestock Marketing Information Center
Meat Demand Monitor (MDM)

*Tracks U.S. consumer preferences, views, and demand for meat*

<table>
<thead>
<tr>
<th>RETAIL</th>
<th>Ribeye Steak</th>
<th>Ground Beef</th>
<th>Pork Chop</th>
<th>Bacon</th>
<th>Chicken Breast</th>
<th>Plant-Based Patty</th>
<th>Shrimp</th>
<th>Beans and Rice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb-20</td>
<td>WTP ($/lb)</td>
<td>$16.35</td>
<td>$7.18</td>
<td>$6.11</td>
<td>$4.45</td>
<td>$7.43</td>
<td>$7.76</td>
<td>$8.94</td>
</tr>
<tr>
<td>Mar-20</td>
<td>WTP ($/lb)</td>
<td>$15.89</td>
<td>$6.90</td>
<td>$5.74</td>
<td>$4.49</td>
<td>$7.13</td>
<td>$7.98</td>
<td>$8.55</td>
</tr>
<tr>
<td>Apr-20</td>
<td>WTP ($/lb)</td>
<td>$16.44</td>
<td>$7.72</td>
<td>$6.33</td>
<td>$5.06</td>
<td>$7.58</td>
<td>$8.23</td>
<td>$8.98</td>
</tr>
<tr>
<td>May-20</td>
<td>WTP ($/lb)</td>
<td>$15.45</td>
<td>$6.94</td>
<td>$5.87</td>
<td>$4.41</td>
<td>$6.90</td>
<td>$7.57</td>
<td>$8.82</td>
</tr>
<tr>
<td>Jun-20</td>
<td>WTP ($/lb)</td>
<td>$15.92</td>
<td>$7.41</td>
<td>$5.71</td>
<td>$4.50</td>
<td>$7.20</td>
<td>$7.52</td>
<td>$8.22</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FOOD SERVICE</th>
<th>Ribeye Steak</th>
<th>Beef Hamburger</th>
<th>Pork Chop</th>
<th>Baby Back Ribs</th>
<th>Chicken Breast</th>
<th>Plant-Based Patty</th>
<th>Shrimp</th>
<th>Salmon</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb-20</td>
<td>WTP ($/meal)</td>
<td>$25.79</td>
<td>$18.88</td>
<td>$14.92</td>
<td>$17.69</td>
<td>$17.26</td>
<td>$13.31</td>
<td>$16.52</td>
</tr>
<tr>
<td>Mar-20</td>
<td>WTP ($/meal)</td>
<td>$24.90</td>
<td>$18.39</td>
<td>$14.58</td>
<td>$17.53</td>
<td>$16.79</td>
<td>$12.83</td>
<td>$17.38</td>
</tr>
<tr>
<td>Apr-20</td>
<td>WTP ($/meal)</td>
<td>$24.65</td>
<td>$17.58</td>
<td>$13.47</td>
<td>$17.01</td>
<td>$16.17</td>
<td>$11.57</td>
<td>$16.51</td>
</tr>
<tr>
<td>May-20</td>
<td>WTP ($/meal)</td>
<td>$25.30</td>
<td>$19.09</td>
<td>$15.34</td>
<td>$18.49</td>
<td>$17.57</td>
<td>$12.76</td>
<td>$17.06</td>
</tr>
<tr>
<td>Jun-20</td>
<td>WTP ($/meal)</td>
<td>$25.43</td>
<td>$18.69</td>
<td>$15.64</td>
<td>$18.35</td>
<td>$17.48</td>
<td>$12.63</td>
<td>$17.25</td>
</tr>
</tbody>
</table>

Meat Demand Monitor (MDM)

Retail and Food Service Demand Indices

Demand: Exports
Export Markets Support Domestic Prices

<table>
<thead>
<tr>
<th>Product</th>
<th>Percentage Exported</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walnuts</td>
<td>79%</td>
</tr>
<tr>
<td>Cotton</td>
<td>76%</td>
</tr>
<tr>
<td>Almonds</td>
<td>67%</td>
</tr>
<tr>
<td>Pistachios</td>
<td>62%</td>
</tr>
<tr>
<td>Sorghum</td>
<td>59%</td>
</tr>
<tr>
<td>Rice</td>
<td>55%</td>
</tr>
<tr>
<td>Soybeans</td>
<td>50%</td>
</tr>
<tr>
<td>Wheat</td>
<td>46%</td>
</tr>
<tr>
<td>Grapes</td>
<td>36%</td>
</tr>
<tr>
<td>Pork</td>
<td>21%</td>
</tr>
<tr>
<td>Corn*</td>
<td>21%</td>
</tr>
<tr>
<td>Cherries</td>
<td>19%</td>
</tr>
<tr>
<td>Apples</td>
<td>18%</td>
</tr>
<tr>
<td>Poultry</td>
<td>16%</td>
</tr>
<tr>
<td>Dairy</td>
<td>15%</td>
</tr>
<tr>
<td>Beef</td>
<td>10%</td>
</tr>
</tbody>
</table>

> 20%
Overall, U.S. farmers export more than 20% of what they produce.

*Including wheat, DDG, and HFCS exports.
Source: USDA Foreign Agricultural Service, Production, Supply, and Distribution System.
Beef Export Demand

Monthly U.S. Beef, Export Demand Index, Jan. 2010 (base) - present

Data Source: https://www.agmanager.info/livestock-meat/meat-demand/monthly-export-meat-demand-indices-usdabls-data
US BEEF AND VEAL EXPORTS
Carcass Weight, Monthly

Data Source: USDA-ERS & USDA-FAS
Livestock Marketing Information Center
Pork Export Demand

Data Source: https://www.agmanager.info/livestock-meat/meat-demand/monthly-export-meat-demand-indices-usdabls-data
US PORK EXPORTS
Carcass Weight, Monthly

![Graph showing US pork exports carcass weight from January to December, with data for 2014-18, 2019, and 2020. The graph indicates a general trend of increasing export volume over the years, with peaks and troughs during specific months.](Graph.png)

Data Source: USDA-ERS & USDA-FAS
Livestock Marketing Information Center
Chicken Export Demand

Data Source: https://www.agmanager.info/livestock-meat/meat-demand/monthly-export-meat-demand-indices-usdabls-data
Supply
Key Difference Between Supply and Demand

Are we capable of making it? (SUPPLY)

Do consumers/customers want us to make (DEMAND)
Prices Transmit Supply Signals

Changes in cattle/beef prices
Comparing Events

*Not all market shocks are equal – Live Cattle*
Supply: Cattle (Backup)
COMMERCIAL BEEF PRODUCTION
Weekly Average, By Month

Data Source: USDA-NASS, Compiled by LMIC
FEDERALLY INSPECTED CATTLE SLAUGHTER
Daily Average, By Month

Thou. Head

JAN MAR MAY JUL SEP NOV

Avg. 2014-18 2019 2020

Data Source: USDA-NASS, Compiled by LMIC
Livestock Marketing Information Center
STEER SLAUGHTER
Federally Inspected, Monthly

Thou. Head

Data Source: USDA-NASS
Livestock Marketing Information Center
COW SLAUGHTER
Federally Inspected, Monthly

Thou. Head

Data Source: USDA-NASS
Livestock Marketing Information Center
AVERAGE DRESSED WEIGHT -- STEERS
Federally Inspected, Monthly

Data Source: USDA-NASS
Livestock Marketing Information Center
AVERAGE DRESSED WEIGHT -- COWS
Federally Inspected, Monthly

Data Source: USDA-NASS
Livestock Marketing Information Center
FED CATTLE MARKETINGS
US Total, Monthly

Mil. Head

2.2
2.1
2.0
1.9
1.8
1.7
1.6
1.5
1.4

JAN  FEB  MAR  APR  MAY  JUN  JUL  AUG  SEP  OCT  NOV  DEC

Avg. 2013/17  2019  2020

Data Source: USDA-NASS
Livestock Marketing Information Center
CATTLE ON FEED OVER 90 DAYS
US Total, Monthly

Mil. Head

Data Source: USDA-NASS, Compiled by LMIC
Livestock Marketing Information Center
CATTLE ON FEED OVER 120 DAYS
US Total, Monthly

Mil. Head

Data Source: USDA-NASS, Compiled by LMIC
Livestock Marketing Information Center

C-N-12
10/23/20
Supply: Hog (Backup)
COMMERCIAL PORK PRODUCTION
Weekly Average, By Month

Mil. Pounds

Data Source: USDA-NASS, Compiled by LMIC
Livestock Marketing Information Center
SOW SLAUGHTER
Federally Inspected, Monthly

Data Source: USDA-NASS
Livestock Marketing Information Center
AVG DRESSED WEIGHT – HOGS
Federally Inspected, Monthly

Data Source: USDA-NASS
Livestock Marketing Information Center
AVG DRESSED WEIGHT – SOWS
Federally Inspected, Monthly

Data Source: USDA-NASS
Livestock Marketing Information Center
Supply: Poultry (Backup)
BROILER PRODUCTION
Federally Inspected, Weekly

Data Source: USDA-AMS & USDA-NASS
Livestock Marketing Information Center
BROILER SLAUGHTER
Federally Inspected, Weekly

Mil. Birds

Data Source: USDA-AMS & USDA-NASS
Livestock Marketing Information Center
BROILER EGGS SET
Weekly

Mil. Eggs

- Avg. 2014-18
- 2019
- 2020

Data Source: USDA-NASS
Livestock Marketing Information Center
BROILER CHICKS PLACED
Weekly

Mil. Birds

JAN  APR  JUL  OCT

Avg. 2014-18  2019  2020

Data Source: USDA-NASS
Livestock Marketing Information Center
Supply: economically feasible to hold production?
US RANGE AND PASTURE CONDITION
Percent Poor and Very Poor, Weekly

Percent

May  Jul  Sep

Avg. 2014-18  2019  2020

Data Source: USDA-NASS, Compiled & Analysis by LMIC
Livestock Marketing Information Center
CORNBELT REGION
RANGE AND PASTURE CONDITION
Percent Poor and Very Poor, Weekly

Data Source: USDA-NASS, Compiled & Analysis by LMIC
Livestock Marketing Information Center
OMAHA CORN PRICES
Weekly

$ Per Bu.

JAN | APR | JUL | OCT

Data Source: USDA-AMS
Livestock Marketing Information Center
CENTRAL ILLINOIS SOYBEAN MEAL (48%) PRICES
Weekly

$ Per Ton

Data Source: USDA-AMS
Livestock Marketing Information Center

G-P-07
10/22/20
DISTILLERS GRAIN PRICES
Nebraska, Weekly

$ Per Ton

Data Source: USDA-AMS
Livestock Marketing Information Center
IOWA ETHANOL PRICE
Weekly

$ Per Gallon

Data Source: USDA-AMS
Livestock Marketing Information Center
Future Market Shocks: Changing Global Consumer
ADM “5 Market Shakers” Poll

4 of 5 directly apply to livestock/protein products

1. A More Proactive Approach to Nourishing the Body and Mind
   31% of consumers are purchasing more items tailored for their health

2. Sustainability Takes Center Stage
   65% of consumers want positive impact on environment through everyday actions. Key reason why 32% of consumers buy sustainably produced items

3. Plant-Based Food Boom Expands Beyond the Bun
   56% of plant consumers are trying to eat more plant-based foods and beverages

4. Transparency Builds Consumer Trust
   Consumers expect food labels to provide greater transparency around the entire product life cycle. 26% of global consumers look for the country of origin on food and drink labels (re-emergence of COOL in US?)

Future/Current Market Shocks: African Swine Fever and Chinese Purchases
African Swine Fever Potential and Threat

*Long-term production shock*

ASF outbreaks in Asia

Production shocks
  - Shift both short and long run production
  - Ex. Estimated 40-70% of hog breeding herd in China has been eliminated

Similar example of PEDv
  - Positive PEDV Accessions by State
  - Can the U.S. keep out ASF? Depends!
2020 ASF Disease Outbreak Map (OIE)

January 1, 2020 to August 29, 2020

Source: OIE (2020), Compiled by Author
Trade Deals and Self-sufficiency

Current markets and future direction

Trade Deal
“During the two-year period from January 1, 2020 through December 31, 2021, China shall ensure that purchases and imports into China from the United States of ... agricultural goods... by no less than $200 billion.” (Article 6.2, paragraph 1 of US-China Trade Deal)
- China is lagging some in purchases and Phase 2 is in question

Recent Chinese Cabinet Document
- produce 95% of its pork at home
  - has been almost fully self-sufficient in pork in the past; imports ~1% of production 2000-2018.
- aiming to supply about:
  - 85% of its beef and lamb
  - > 70% of its milk
  - remain fully self-sufficient in eggs and poultry
US BEEF EXPORTS TO CHINA (MAINLAND)
Carcass Weight, Monthly

Mil. Pounds

Data Source: USDA-ERS & USDA-FAS
Livestock Marketing Information Center
Future (Policy) Shocks: Cattle Marketings
Negotiated Cash Trade

Nebraska, Weekly

National, Weekly
Potential Remedy: Government Proposal #1

Grassley Bill

Proposed Senate Bill
May 13, 2020
https://mcusercontent.com/c35966bef9b816acff772766f/files/2ab016be-8492-49db-a86d-bf6e87548f4a/Mandatory_Negotiated_Cash_Trade_FINAL.pdf

“the covered packer shall slaughter not less than 50% of the quantity through spot market sales from nonaffiliated producers.” (pg. 4)
Potential Remedy: Government Proposal #2

Fisher Bill

A BILL

To amend the Packers and Stockyards Act, 1921, to establish a cattle contract library, and for other purposes.

Proposed Senate Bill
September 22, 2020
https://www.fischer.senate.gov/public/_cache/files/bf98d4e6-4546-494a-8744-0a1d089a4da2/elt20632.pdf

“establish and maintain a library or catalog of each type of contract offered by packers to producers for the purchase of all or part of the production of the producers of fed cattle.” (p. 6)

“shall establish regional mandatory minimums for the purpose of enhancing price discovery and transparency for cattle market participants.” (p. 11)

“Packer purchase commitments, which shall be equal to the number of cattle, organized by cattle type, scheduled for delivery to a packer for slaughter for each of the next 14 calendar days” (pp. 12-13)
Potential Remedy: Industry Proposal #1

“set aside” and “bid the grid”

CattleFax Proposed “Set aside” Program

Advisory committee makes a weekly recommendation on the number of fed cattle to slaughter in 75-day window

Similarities with Canada?

“Additional feed and operating costs incurred are roughly offset by program payments” (pg. 4)

Who pays the difference?
Potential Remedy: Industry Proposal #2

Self regulation packer + feeder program

NCBA organization voluntary effort

8 minor triggers
- 4 regional negotiated trade
- 4 packer participation

Packer participation uncertain

Negotiated trade
- Must have 75% of robust trade in 75% of weeks in at least 3 of 4 rolling quarters
- 3 minor triggers = 1 major trigger

Source: NCBA (2020)
Risk Management:
LRP Option for Smaller Producers
Current Coverage Levels and Subsidy Rates
Fed Cattle, Feeder Cattle, Swine

<table>
<thead>
<tr>
<th>Coverage Level</th>
<th>Subsidy (Previous)</th>
</tr>
</thead>
<tbody>
<tr>
<td>95-100</td>
<td>35 (25): +10</td>
</tr>
<tr>
<td>90-94</td>
<td>40 (30): +10</td>
</tr>
<tr>
<td>85-89.99</td>
<td>45 (35): +10</td>
</tr>
<tr>
<td>80-84.99</td>
<td>35 (50): +15</td>
</tr>
<tr>
<td>70-79</td>
<td>50 (35): +15</td>
</tr>
</tbody>
</table>

• Increase head limits to:
  • Feeder Cattle – 6,000 head per endorsement/12,000 head annually
  • Fed Cattle – 6,000 head per endorsement/12,000 head annually
  • Swine – 40,000 head per endorsement/150,000 head annually

• Modify the livestock ownership requirement to 60 days
• Pay premium after endorsement period ended
"Premium Gap": LRP and CME Options

![Graphs showing the difference between option premiums and percent of CME premiums.]
Market Shocks and Risk Management

Elliott Dennis
Dept. of Agricultural Economics
University of Nebraska – Lincoln
October 2020

https://farm.unl.edu/contributors/elliott-dennis