Market Consequences of Commodity Support

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Results so far . . .

• Theoretical results from Floyd-type model
  – Decoupled payments
  – Input subsidies
  – Output subsidies

• Review of results from econometric studies
  – Decoupled payments
  – Land rents and land prices

• U.S. and State-level data, land rents vs subsidies
Results to come . . .

• New econometrics using
  – state-level data on land rents and subsidies, 1949-2005
  – cross-border comparisons with Canada

• Results from simulations of omnibus reforms
  – ABARE
  – Peatsim
  – FAPRI

• Synthesis of results from other papers
## “Floyd Model” Results

<table>
<thead>
<tr>
<th>Elasticity</th>
<th>Economic Surplus Change as a Share of Subsidy Expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Input Subsidy</td>
</tr>
<tr>
<td>ε₁</td>
<td>σ</td>
</tr>
<tr>
<td>0.0</td>
<td>0.2</td>
</tr>
<tr>
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<td></td>
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<td></td>
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<td>0.5</td>
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</tbody>
</table>
Econometric Estimates

• “Decoupled” payments and production
  – Mostly modest effects on inputs and outputs
  – Mostly fairly consistent with simple models

• Land rents and land values
  – Program payments have “surprisingly” small effects
  – Not consistent with simple model
  – Results withstand exhaustive efforts to address potential econometric causes

• Can we reconcile these results?
  – Market institutions?
  – Other sources of dynamics?
  – Unresolved econometric problems?
## Commodity Program Payments

<table>
<thead>
<tr>
<th>Program Crop</th>
<th>2005 Subsidy Payments ($ millions)</th>
<th>Subsidy Rate (%)</th>
<th>Subsidy/Acre (TS/A)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DP</td>
<td>CCP</td>
<td>LPP</td>
</tr>
<tr>
<td>Corn</td>
<td>2,109</td>
<td>2,948</td>
<td>4,600</td>
</tr>
<tr>
<td>Soybeans</td>
<td>598</td>
<td>0</td>
<td>19</td>
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<tr>
<td>Upland Cotton</td>
<td>611</td>
<td>1,376</td>
<td>371</td>
</tr>
<tr>
<td>Wheat</td>
<td>1,136</td>
<td>0</td>
<td>1,036</td>
</tr>
<tr>
<td>Rice</td>
<td>425</td>
<td>87</td>
<td>130</td>
</tr>
<tr>
<td>Other(^3)</td>
<td>375</td>
<td>414</td>
<td>288</td>
</tr>
<tr>
<td>Total(^4, 5)</td>
<td>5,254</td>
<td>4,824</td>
<td>6,444</td>
</tr>
</tbody>
</table>
Cash Rent vs Subsidies, by State, 2005

- Payments per acre
- Cash rents per acre
- Unweighted sum of subsidies per acre
- Weighted sum of subsidies per acre

Legend:
- ▲ Unweighted sum of subsidies per acre
- ● Weighted sum of subsidies per acre
- - Linear trend line
Conclusion . . . for now

• Benefits from farm programs shared
  – Consumers
  – Farm operators
  – Landowners

• Shares depend in predictable ways on subsidy forms
  – Decoupling favors landowners

• Measures depend on methods and assumptions
  – Econometric vs synthetic, truth is probably in-between

• More to come
  – Refine synthetic estimates
  – Further analyze state-level data, compare with Canada
  – Evaluate omnibus reforms with three larger simulation models, informed by small simulation model and econometrics
  – Interpret results from other chapters