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

Elasticity			Economic Surplus Change as a Share of Subsidy Expenditure						
	, and the second s		Input S	Subsidy	Output Subsidy				
ε ₁	σ	η	Consumers	Landowners	Consumers	Landowners			
				Per	Percent				
0.0	0.2	0.5	0	100	44	33			
		1.0	0	100	29	43			
		1.5	0	100	21	47			
	0.4	0.5	0	100	52	23			
		1.0	0	100	35	30			
		1.5	0	100	26	34			
0.1	0.2	0.5	24	71	52	24			
0.1	0.2	1.0	16	75	35	32			
		1.5	12	77	27	37			
	0.4	0.5	18	81	56	18			
		1.0	13	83	39	25			
		1.5	10	84	30	29			
0.2	0.2	0.5	37	56	57	19			
		1.0	26	60	40	26			
		1.5	20	63	30	30			
	0.4	0.5	31	68	59	15			
		1.0	22	71	41	22			
		1.5	17	73	32	25			

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

Program Crop		2005 Subsidy Payments (\$ millions)					Subsidy/Acre	
_	DP	ССР	LPP	TS_1	TS_2	- (/0)	(TS ₁ /A)	(TS_2/A)
Corn	2,109	2,948	4,600	9,657	5,608	45.9	128.58	74.66
Soybeans	598	0	19	617	604	3.6	8.67	8.48
Upland Cotton	611	1,376	371	2,358	1,652	45.3	174.20	122.05
Wheat	1,136	0	1,036	2,172	1,481	30.4	43.34	29.56
Rice	425	87	130	642	526	35.9	190.84	156.46
Other ³	375	414	288	1,077	747	18.9	10.31	7.15
Total ^{4, 5}	5,254	4,824	6,444	16,522	10,618	28.6	51.99	33.41

Cash Rent vs Subsidies, by State, 2005



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