

Changes with observed prices and quantities with added costs.

Table 1: Percentage change in price of fed cattle

Year	percentChange_ps_obs	percentChange_ps_model
2010	-5.913	2.353
2011	-13.635	2.135
2012	-2.024	1.812
2013	1.276	1.672
2014	-15.625	1.614
2015	7.426	1.291
2016	27.201	1.304

Table 2: Percentage change in quantity of fed cattle

Year	percentChange_sl_obs	percentChange_sl_model
2010	-1.749	-2.249
2011	-0.547	-0.890
2012	-3.257	-0.531
2013	-1.152	-1.446
2014	-3.352	-0.872
2015	-3.064	-2.283
2016	-0.660	-1.895

Table 3: Percentage change in price of cull cows

Year	percentChange_pc_obs	percentChange_pc_model
2010	-21.130	5.102
2011	-22.009	3.938
2012	-10.757	3.022
2013	-0.537	2.639
2014	-23.130	2.550
2015	2.532	1.953
2016	37.817	1.968

Table 4: Percentage change in quantity of cull cows

Year	percentChange_cl_obs	percentChange_cl_model
2010	16.893	17.571
2011	16.423	6.657
2012	12.124	3.673
2013	1.868	11.126
2014	21.826	6.253
2015	30.512	15.588
2016	26.235	13.214

Table 5: Aggregate producer surplus

Year	diffRevCost_t_obs	diffRevCost_t_model
2010	-2.4758	-0.4655
2011	-4.6500	-0.3373
2012	-2.2253	-0.2975
2013	-0.6869	-0.3515
2014	-7.0593	-0.3099
2015	1.5133	-0.4581
2016	7.2943	-0.4254

Here I adjust the prices and quantities to get the long-run producer surplus estimates

Table 6: Aggregate producer surplus

Year	diffRevCost_t_model
2010	-0.4655
2011	-0.2690
2012	-0.1076
2013	-0.1077
2014	-0.0459
2015	-0.0171
2016	0.0022