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# ACRE and Other Program Crop Provisions

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Breimyer seminar: Unpacking  
the 2008 Farm Bill

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Food and Agricultural  
Policy Research Institute



University of Missouri

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# Agenda

- Everything but ACRE
- ACRE

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# 2008 farm bill changes in 2002 farm bill programs

- Target prices and loan rates for some crops
  - Base eligible for direct payments
  - Marketing loan program rules
  - Timing of payments
  - Payment limitations
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# Loan rates

(used in calculating marketing loan benefits)

	2002 farm bill	2008 farm bill for 2008/09-2009/10	2008 farm bill for 2010/11-2012/13
Corn/bu.	\$1.95	\$1.95	\$1.95
Soybeans/bu.	\$5.00	\$5.00	\$5.00
Wheat/bu.	\$2.75	\$2.75	<b>\$2.94</b>
Upland cotton/lb.	52.0¢	52.0¢	52.0¢
Rice/cwt.	\$6.50	\$6.50	\$6.50

Producers may take out a government loan at these rates, or they may earn marketing loan benefits if an indicator price (posted county price or adjusted world price) falls below the loan rate. Benefits are available on all production.

The 2008 farm bill says that **prices for the last 30 days** should be used to compute benefits. Previously, a daily price was used for some crops.

# Direct payment rates

(used in calculating direct payments)

	2002 farm bill	2008 farm bill for 2008/09-2009/10	2008 farm bill for 2010/11-2012/13
Corn/bu.	\$0.28	\$0.28	\$0.28
Soybeans/bu.	\$0.44	\$0.44	\$0.44
Wheat/bu.	\$0.52	\$0.52	\$0.52
Upland cotton/lb.	6.67¢	6.67¢	6.67¢
Rice/cwt.	\$2.35	\$2.35	\$2.35

Direct payments = Payment rate \* base area \* DP yield \* proportion of base eligible for DPs.

The 2008 farm bill reduces the proportion of base eligible for DPs from the current 85% to **83.3%** for the 2009/10, 2010/11, and 2011/12 crops. The proportion is restored to 85% in 2012/13. Base acreage and DP yields remain fixed at 2002 farm bill levels.

# Target prices

(used in calculating countercyclical payments)

	2002 farm bill	2008 farm bill for 2008/09-2009/10	2008 farm bill for 2010/11-2012/13
Corn/bu.	\$2.63	\$2.63	\$2.63
Soybeans/bu.	\$5.80	\$5.80	<b>\$6.00</b>
Wheat/bu.	\$3.92	\$3.92	<b>\$4.17</b>
Upland cotton/lb.	72.40¢	<b>71.25¢</b>	<b>71.25¢</b>
Rice/cwt.	\$10.50	\$10.50	\$10.50

Countercyclical payment rate = Greater of zero or  
Target price – direct payment rate – higher of (loan rate or season  
average farm price)

Payments = Payment rate \* base acreage \* CCP yield \* 0.85

2008 farm bill does not change these payment formulas, and base  
acres and CCP yields are fixed at 2002 farm bill levels.

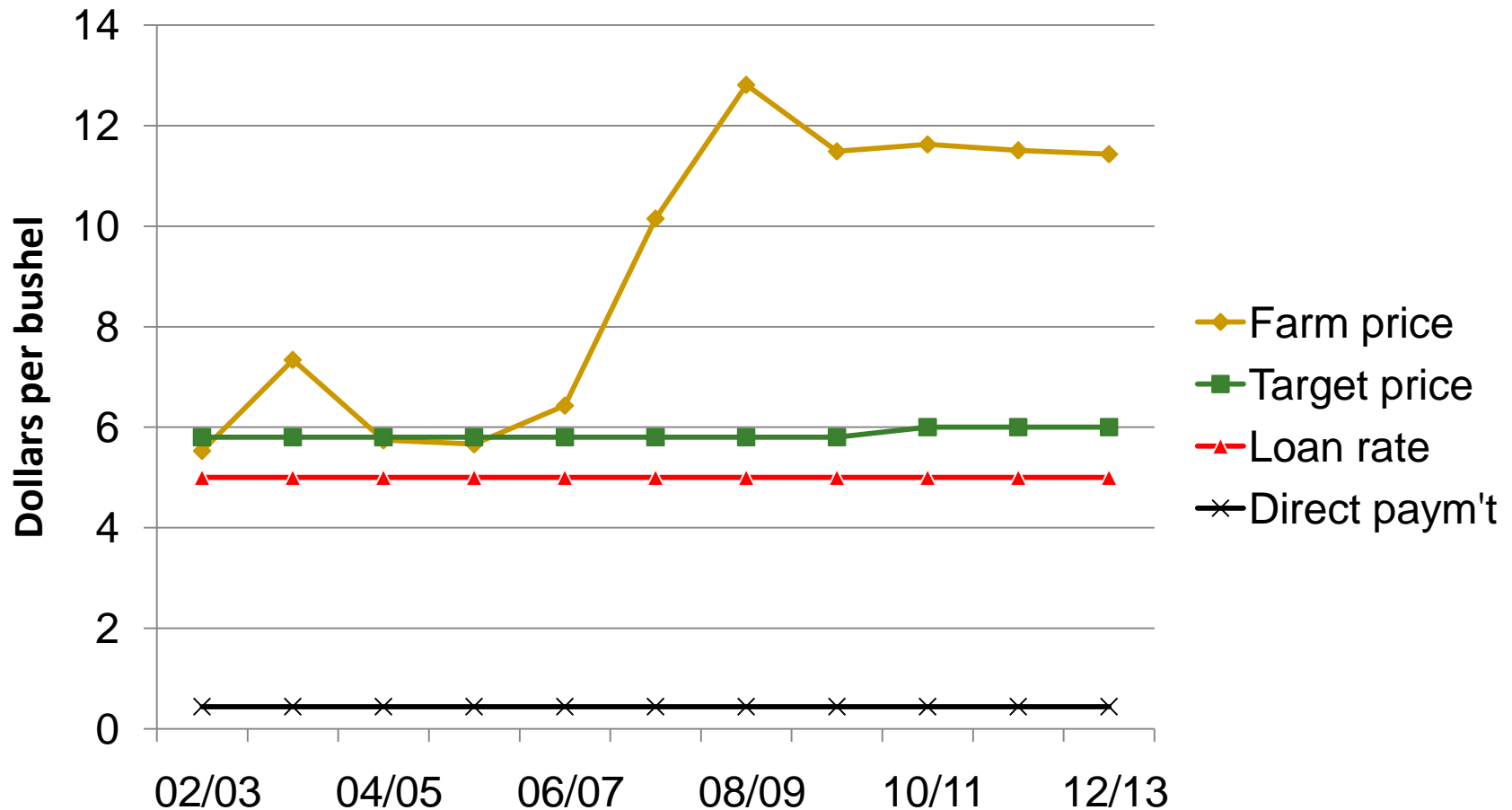
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# Implications of changes in target prices and loan rates

- If commodity prices are low enough, the farm bill changes would result in
    - Increased marketing loan benefits for wheat, barley, oats and minor oilseeds
    - Increased countercyclical payments for soybeans, wheat, barley, oats and minor oilseeds
    - Reduced countercyclical payments for cotton
  - But if commodity prices are high enough, countercyclical payments and marketing loan benefits will be zero, even with the changes
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# Soybean prices and program provisions

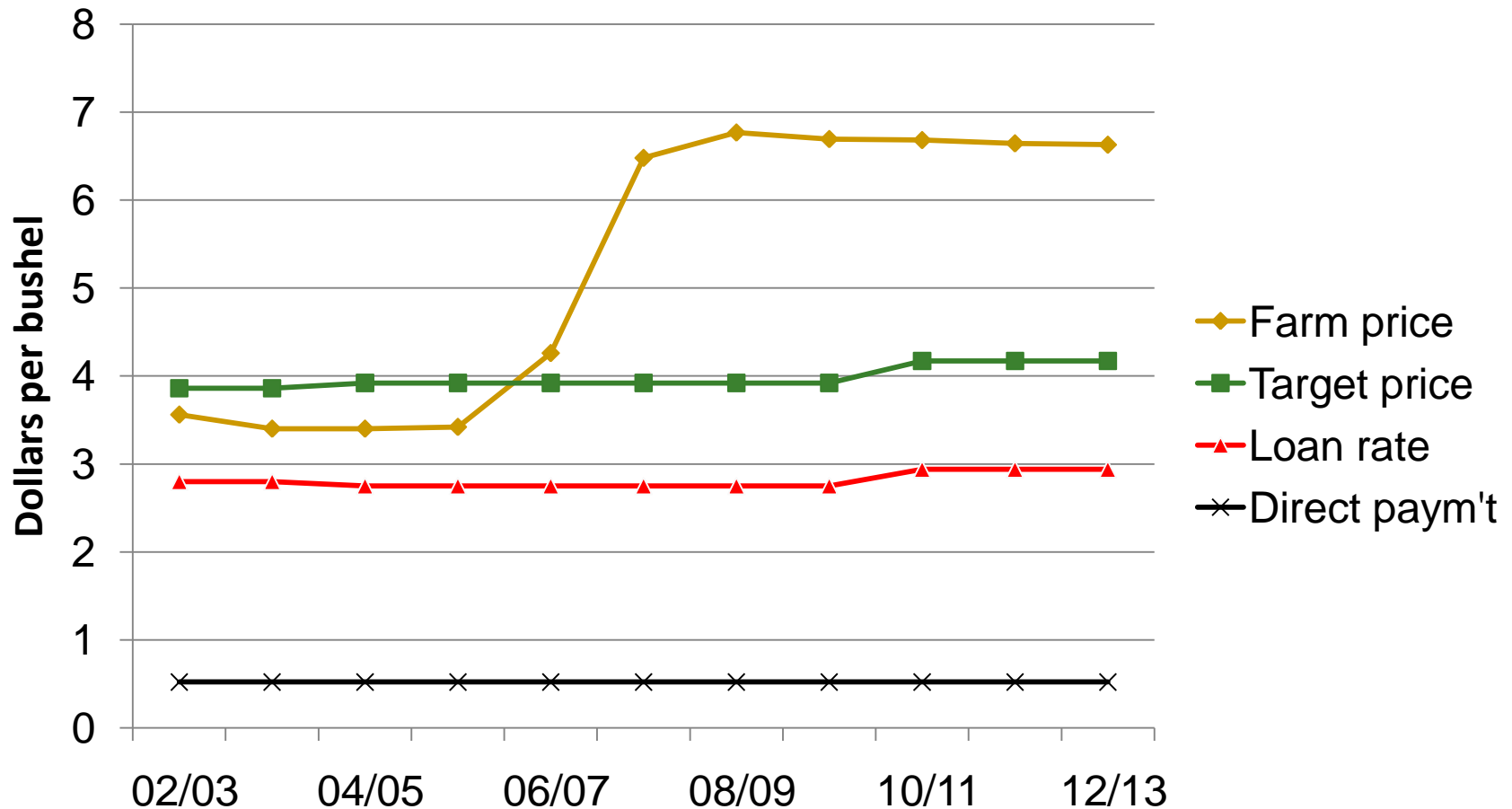
## FAPRI August 2008 baseline update



Source: Farm bill and FAPRI-MU estimates, August 2008.

# Wheat prices and program provisions

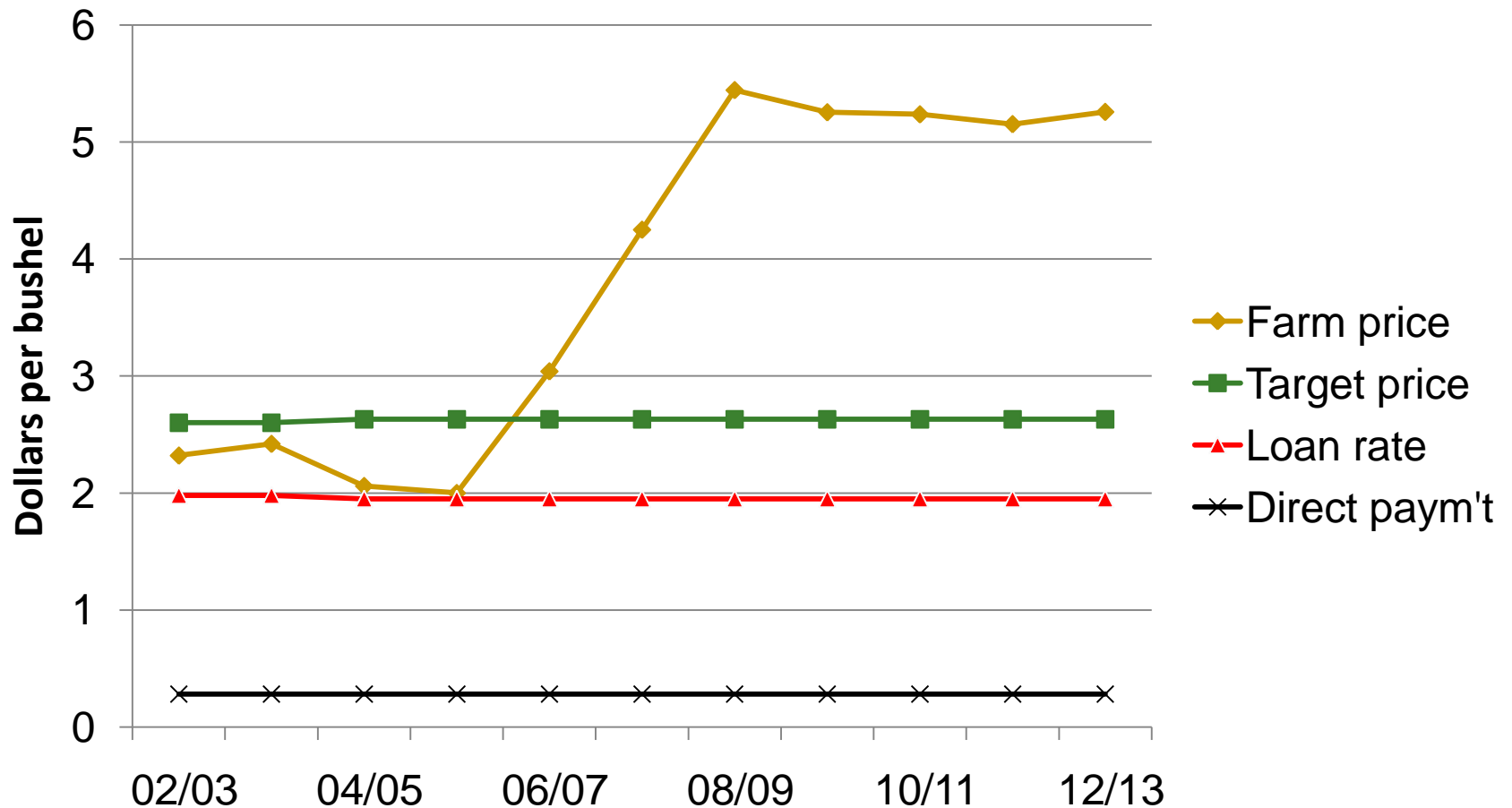
## FAPRI August 2008 baseline update



Source: Farm bill and FAPRI-MU estimates, August 2008.

# Corn prices and program provisions

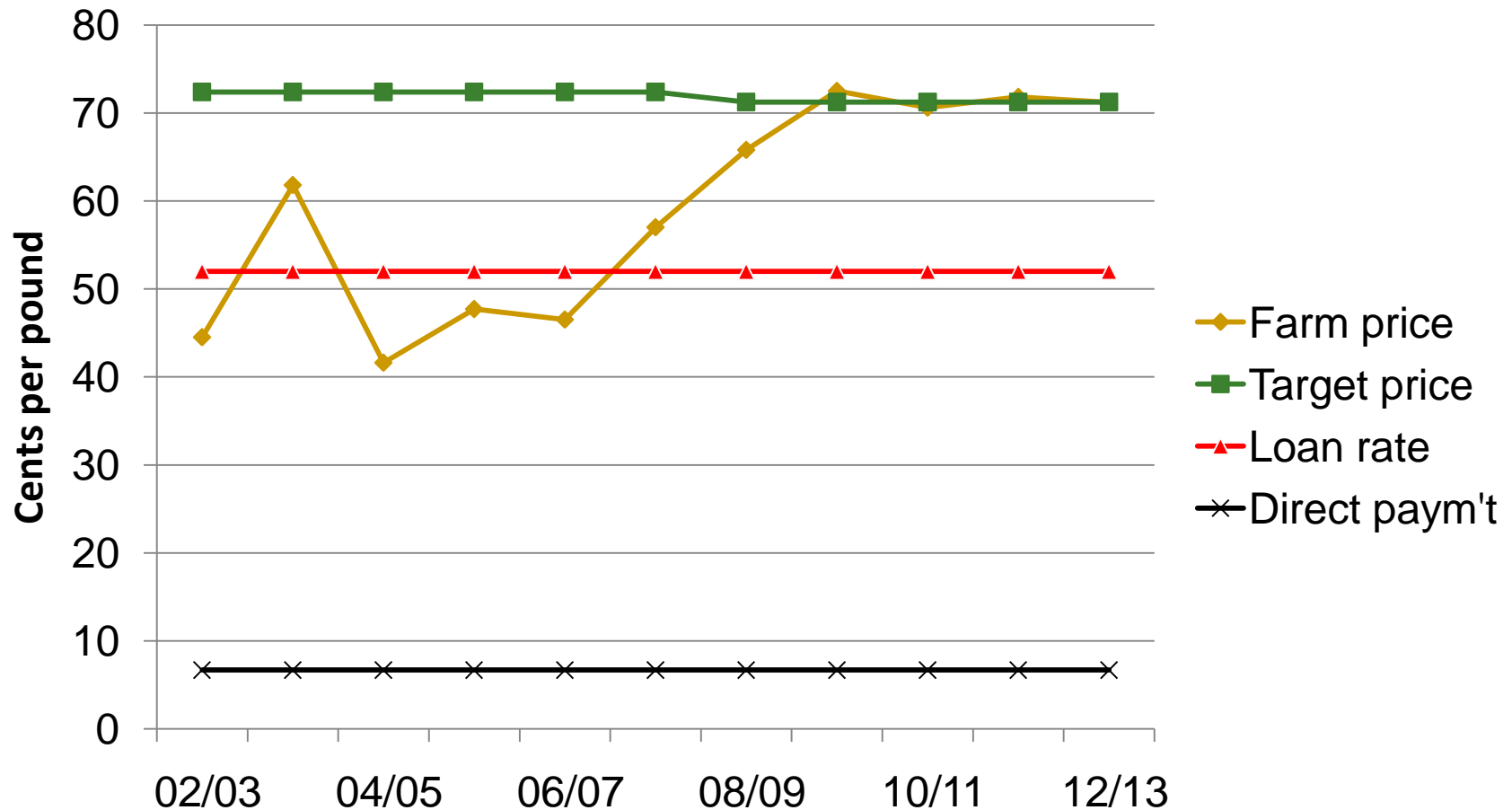
## FAPRI August 2008 baseline update



Source: Farm bill and FAPRI-MU estimates, August 2008.

# Cotton prices and program provisions

## FAPRI August 2008 baseline update



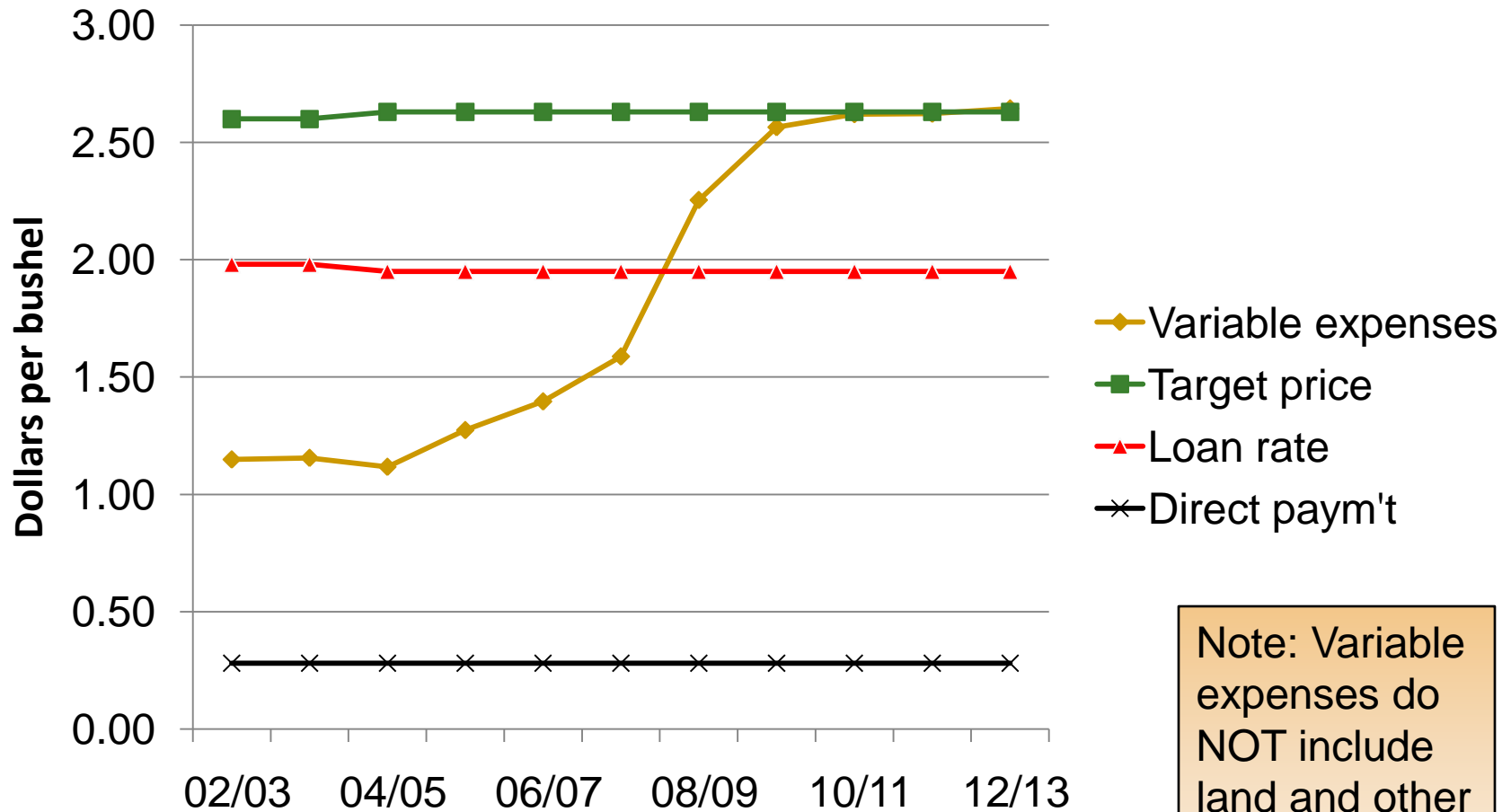
Source: Farm bill and FAPRI-MU estimates, August 2008.

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# Implications of changes in target prices and loan rates revisited

- At projected prices, appears loan benefits for most crops are unlikely
  - Possible exception: cotton, where the lower target price may reduce payments
  - Thus a farm bill that raises target prices and loan rates for several commodities may have little effect on CCPs and loan benefits
  - In fact, reduced CCPs for cotton may result in lower payments than under 2002 farm bill
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# Corn program provisions and variable production expenses



Source: Farm bill and FAPRI-MU estimates, August 2008.

Note: Variable expenses do NOT include land and other fixed costs.

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# Timing of payments

- Farm bills specify when payments can be made
  - 2008 farm bill delays some payments
  - These delays are intended to shift government spending from one fiscal year to another to achieve budgetary targets
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# Timing of payments

	2008/09-2010/11	2011/12	2012/13
Direct payment advance (available Dec. of yr. before harvest)	22%	22%	0%
Final direct payment (available Oct. of harvest year)	78%	78%	100%
Countercyclical payment advance (available 180 days into market year)	40%	0%	0%
Final countercyclical payment (available Oct. of harvest year)	60%	100%	100%

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# Average Crop Revenue Election (ACRE) program

- Short version: make payment if state per-acre revenues fall below a trigger level
  - Trigger (“benchmark” revenue)
    - 2-year average national price, multiplied by
    - 5-year Olympic average (throw out high and low) of state yields per planted acre, multiplied by
    - 0.9
    - Cannot adjust more than 10%/year
  - Payments made on 83.3% of planted acreage from 2009-2011 (85% in 2012)
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# ACRE program provisions, continued

- Farm must have a loss to get a payment (double hurdle—state and farm loss)
  - Farm level benchmark = Farm 5-year Olympic yield times 2-year average US price plus crop insurance premiums paid
  - In contrast, state benchmark multiplies by 0.9 and does not add crop insurance premiums
  - Higher farm benchmark makes the farm-level loss rule less likely to cut off payments
  - Payments don't depend on **size** of farm level loss—but must have **some** loss to qualify for payments if state benefits triggered
- Farm level payment is adjusted for average yields
  - State level payment rate \* ratio of farm to state Olympic yields

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# ACRE program provisions, continued

- Trade-off: to enter program, farmers must give up
    - 20% of direct payments
    - All countercyclical payments
    - And must accept 30% lower loan rate
  - Farmers must choose whether or not to enroll
    - First available in 2009
    - Once enroll, must stay in program through 2012
    - If enroll, must enroll all crops on farm
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# ACRE program: an example

	2004	2005	2006	2007	2008	Average
MO corn yield/pltd a.	158.2	106.3	134.4	133.8	135.6	
w/o high, low			134.4	133.8	135.6	134.6
US price per bushel				\$4.25	\$5.44	\$4.85
Revenue benchmark						\$587.53
Farm yield	170	130	100	140	135	
w/o high, low		130		140	135	135.0

Payments would be made to MO corn farmers if the 2009 state yield/acre multiplied by 2009/10 US corn price is less than 587.53

If 2009 yield = 135 and 2009/10 US price = \$4.00: revenue = \$540  
State average payment rate: \$587.53 - \$540.00 = \$47.53

Farm payment, if farm has loss: 0.833 times planted acres times \$47.53  
times 135.0/134.6 = \$39.71 per planted acre

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# Deciding whether to participate in ACRE

- Like insurance purchase decision:
    - Is expected ACRE payment worth the “premium” of payments foregone?
  - If prices and yields are steady or increase
    - No ACRE payments,
    - But still give up 20% of direct payment
  - But if US prices or state yields drop
    - Potential payments could be quite large
    - Likely to be larger than other payments the producer would forego
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# A big question about ACRE

- USDA still has to write rules
  - One critical question: which two years' prices are used in calculating revenue guarantee?
  - Previous example: 2007/08 and 2008/09 determine 2009/10 guarantee
  - But some suggest USDA will use 2006/07 and 2007/08
  - Who cares? Latter could result in MUCH lower revenue guarantee in 2009/10
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# If 2009/10 benchmark depends on 2007/08 and 2008/09 US market prices

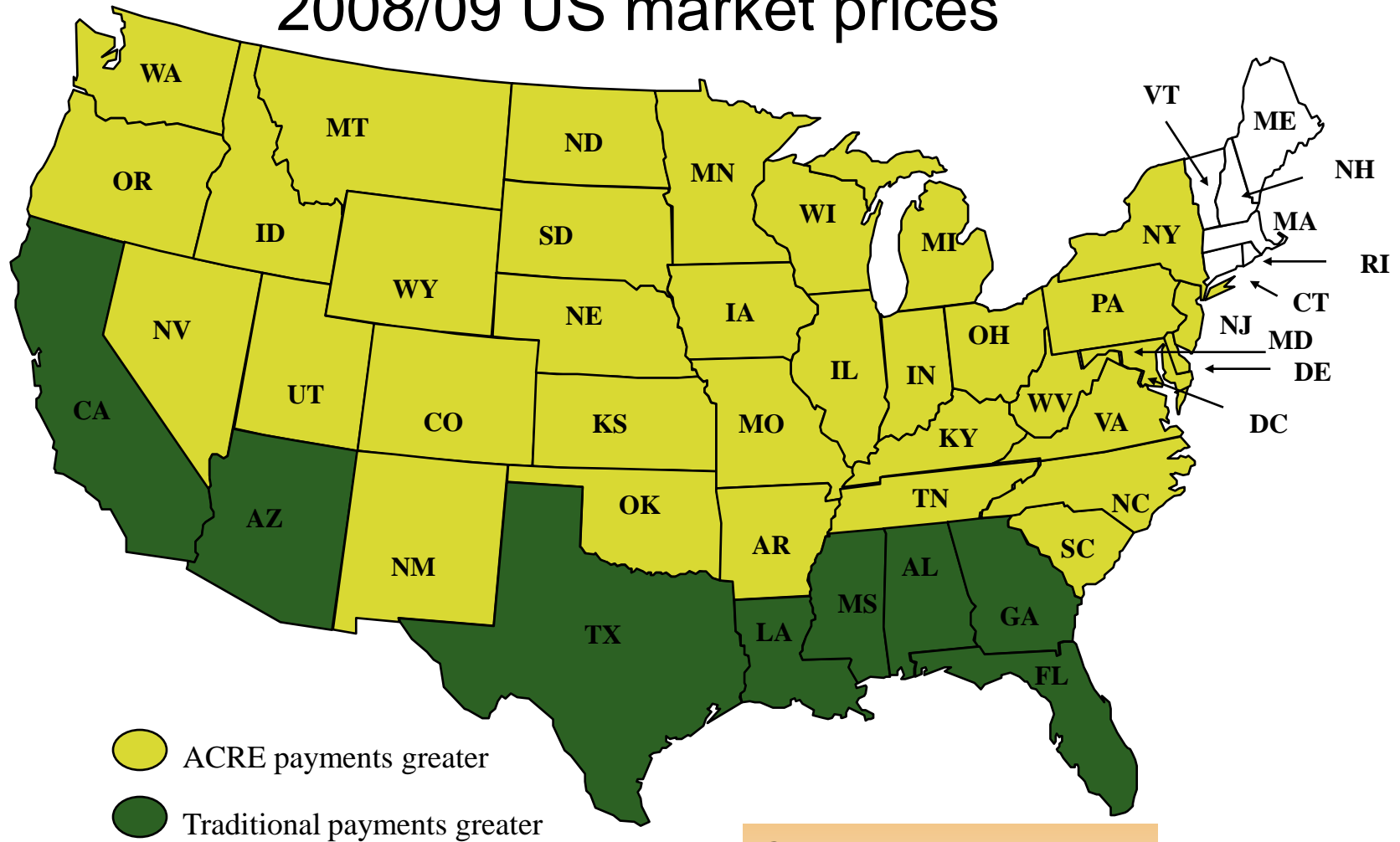


Chart reflects average results over 2009/10-2012/13

# If 2009/10 benchmark depends on 2006/07 and 2007/08 US market prices

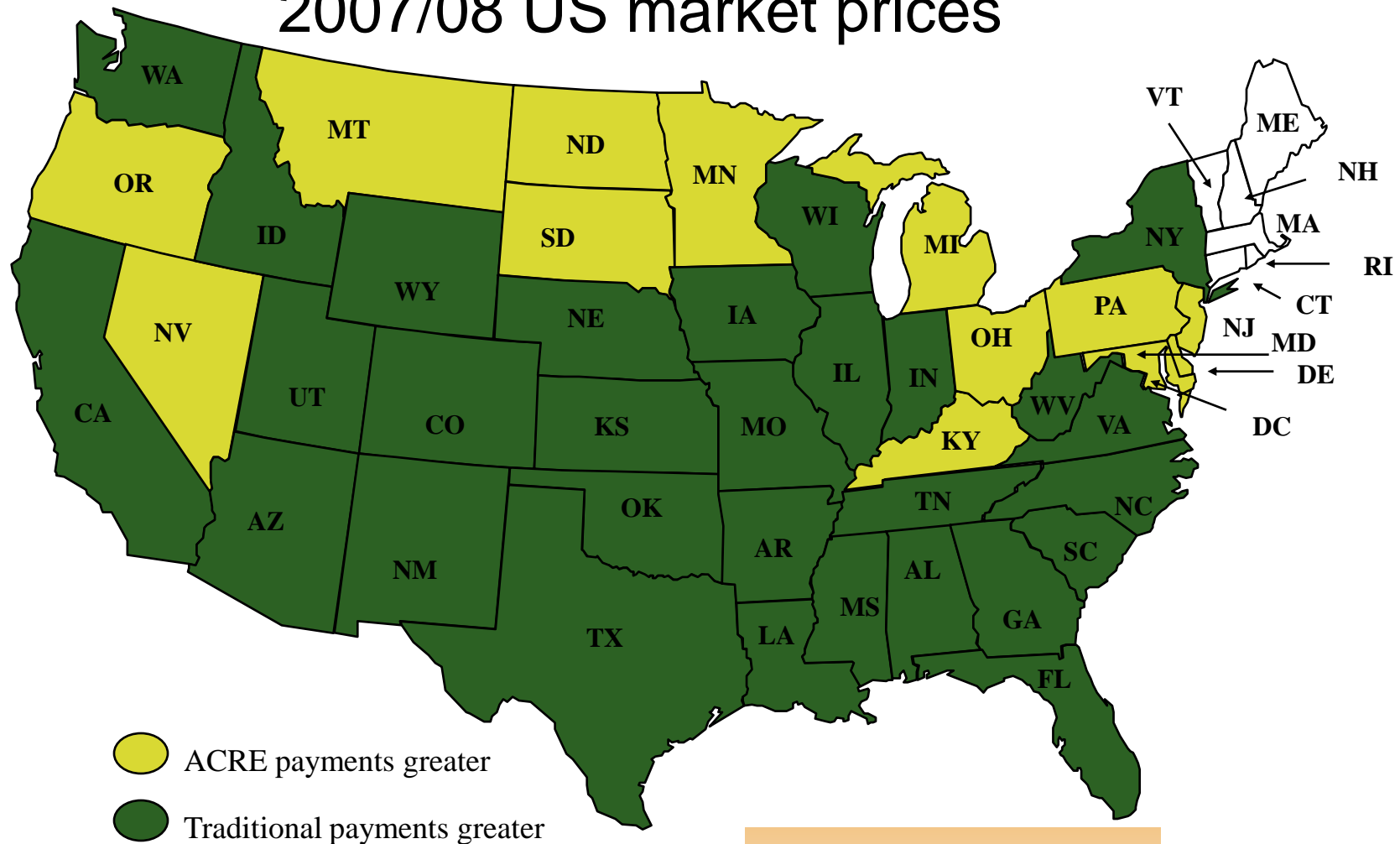


Chart reflects average results over 2009/10-2012/13



# National results for 2009/10-2012/13

(assumes 2007/08 and 2008/09 prices determine 2009/10 benchmark)

	Corn	Wheat	Soybeans	Cotton
Average ACRE payment/acre	\$10.86	\$6.45	\$15.54	\$12.61
Payments foregone/acre	\$4.44	\$3.77	\$1.61	\$46.74
Net benefit of ACRE/acre	\$6.42	\$2.68	\$12.93	-\$34.13
Assumed participation rate	75%	65%	75%	10%

Results reflect average of 500 stochastic outcomes. In any given year for any given commodity in any given state, ACRE payments are zero in most of these 500 outcomes. These figures are an average of these outcomes, which include many cases of no payments and some instances of very large payments.

# Missouri results for 2009/10-2012/13

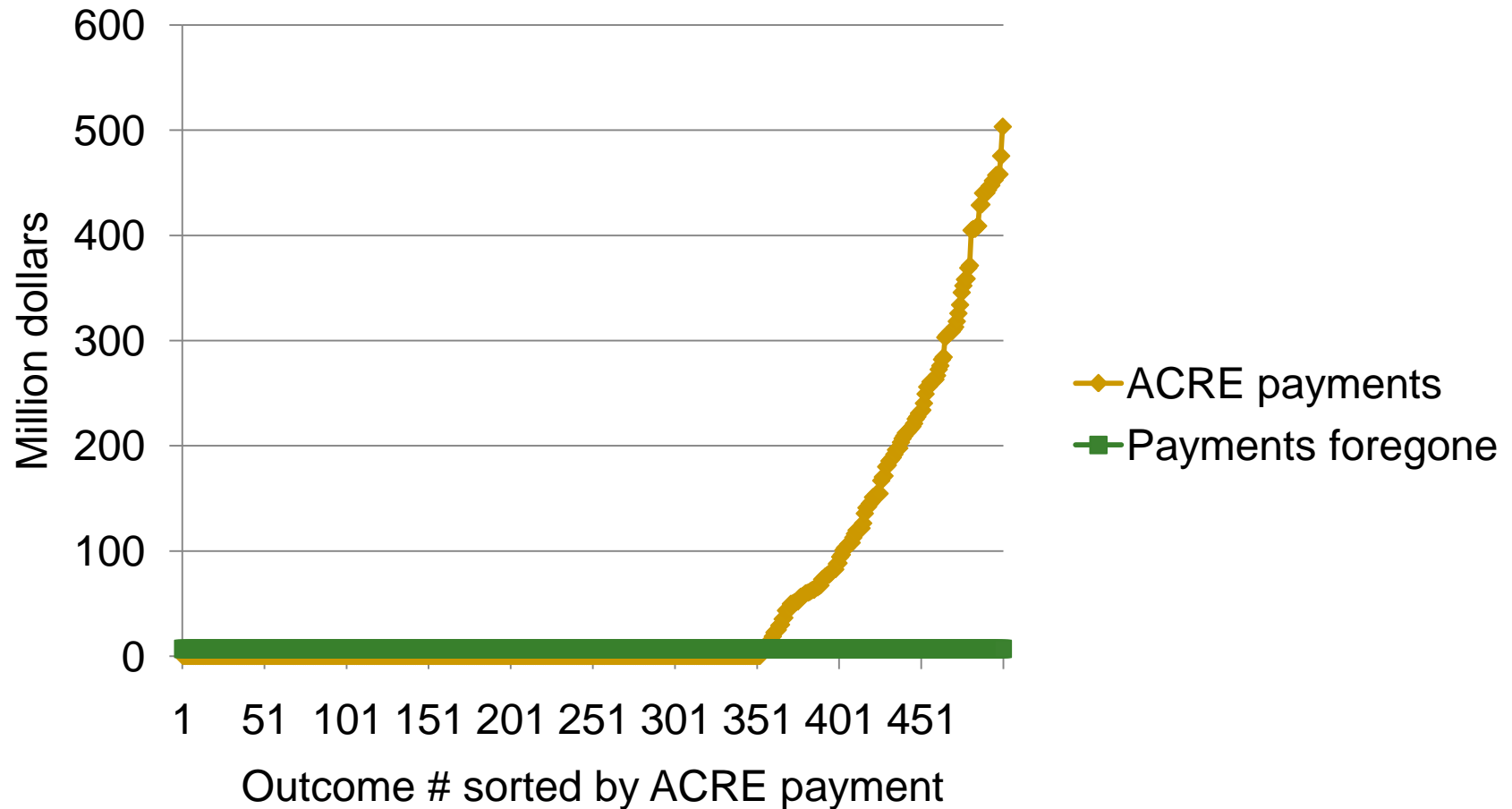
(assumes 2007/08 and 2008/09 prices determine 2009/10 benchmark)

	<b>Corn</b>	<b>Wheat</b>	<b>Soybeans</b>	<b>Cotton</b>
Average ACRE payment/acre	\$11.95	\$7.13	\$12.31	\$12.15
Payments foregone/acre	\$3.83	\$6.61	\$1.34	\$39.28
Net benefit of ACRE/acre	\$8.12	\$0.52	\$10.97	-\$27.13
Annual share of outcomes with ACRE payments	20.7%	25.0%	31.3%	20.3%

Results reflect average of 500 stochastic outcomes.

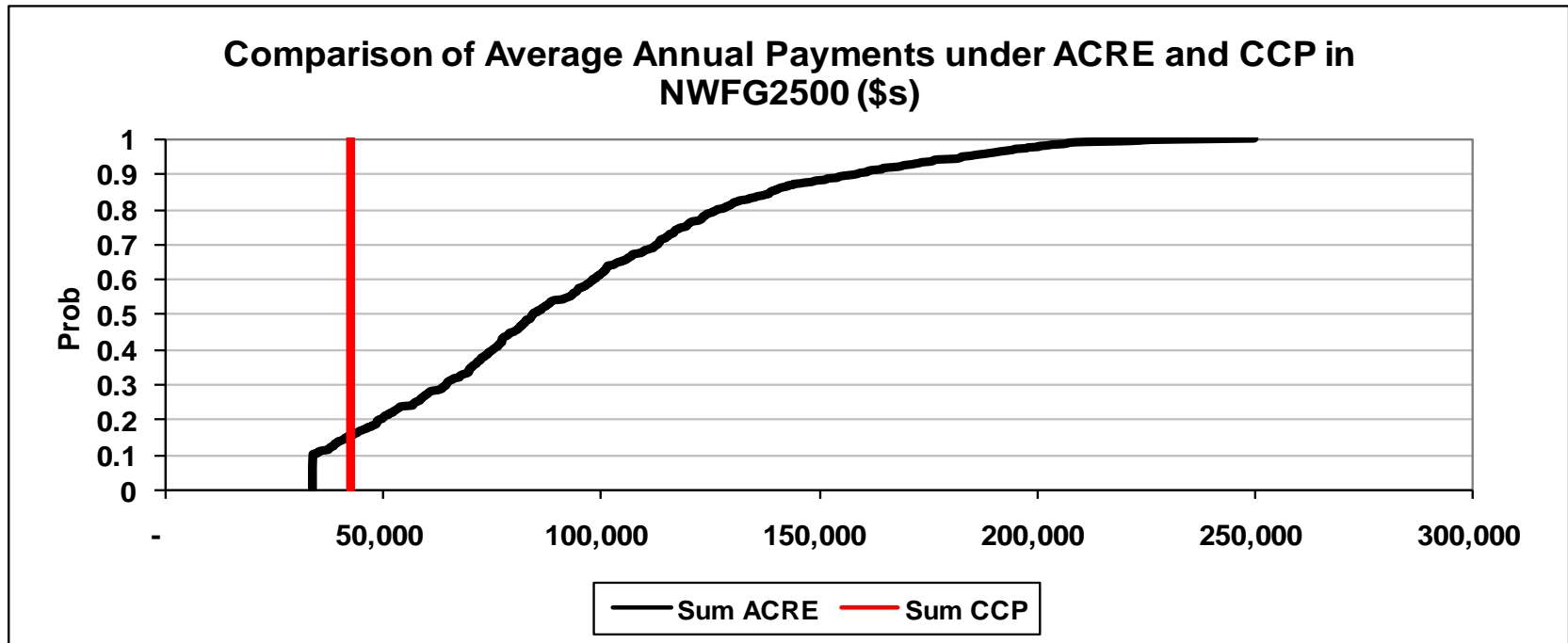
# Missouri soybean results for 2009/10

(assumes 2007/08 and 2008/09 prices determine 2009/10 benchmark)



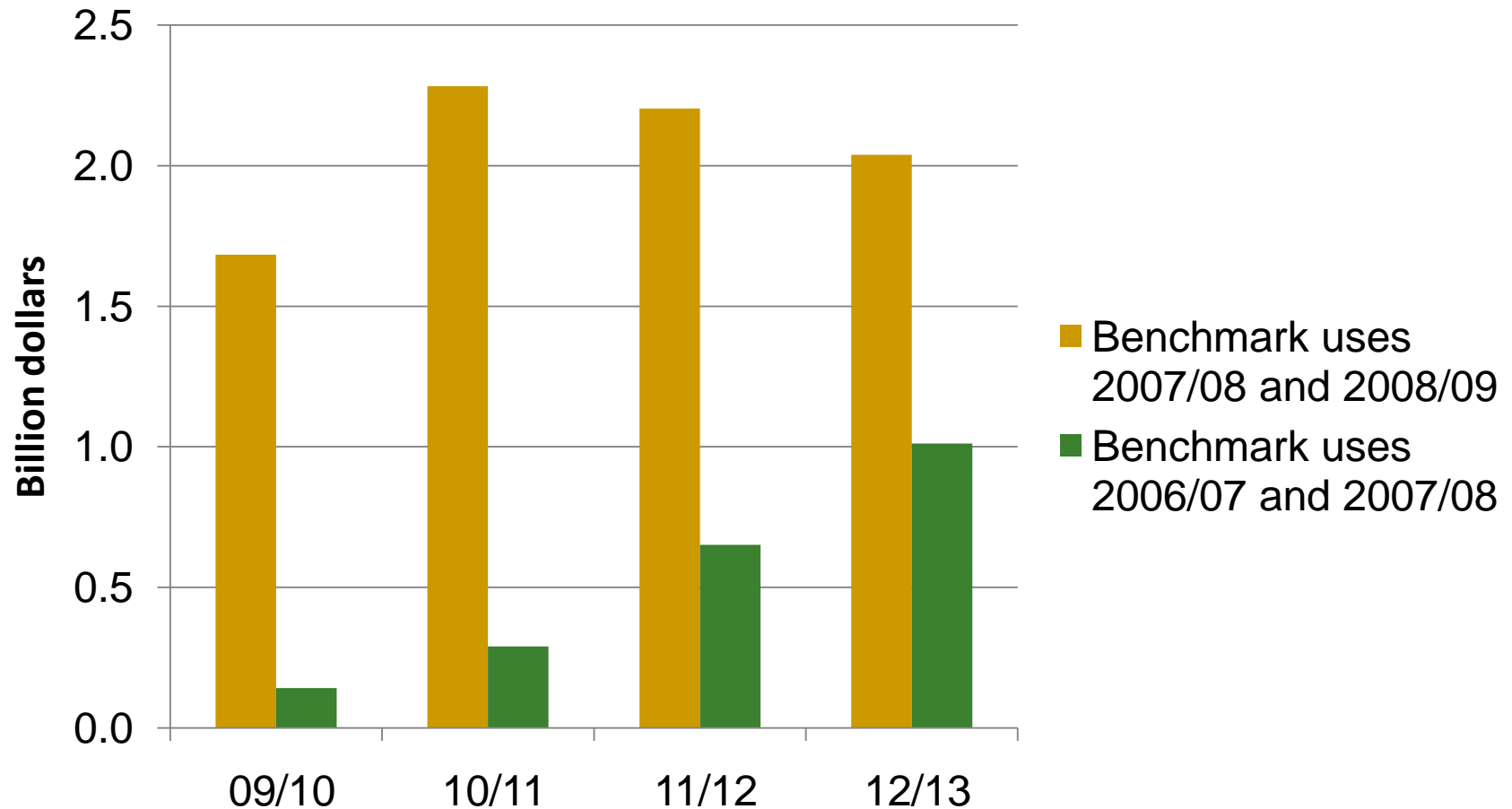
# Results for a NW Missouri farm

(assumes 2007/08 and 2008/09 prices determine 2009/10 benchmark)



# Total ACRE payments

Assuming no difference in participation rates



Source: FAPRI-MU estimates, August 2008.

# Factors affecting ACRE participation

## **More likely to participate**

- 2009 benchmark uses 2007 and 2008 prices
- Expect prices to decline
- More planted acreage than base
- Program yields low relative to harvest yields
- Plant a lot of soybeans or corn
- State Olympic average yield unusually high

## **Less likely to participate**

- 2009 benchmark uses 2006 and 2007 prices
- Expect prices to rise
- More base acreage than planted
- Program yields high relative to harvest yields
- Have a lot of cotton or peanut base
- State Olympic yield unusually low

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# Watch for more from us

- We'll be developing decision aids for ACRE
- But do not expect it right away
  - It will take a lot of work
  - Important program decisions have yet to be made

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# Thanks!

- Contact me at [westhoffp@missouri.edu](mailto:westhoffp@missouri.edu) or 573-882-4647
  - Visit FAPRI-MU web page at [www.fapri.missouri.edu](http://www.fapri.missouri.edu)
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