Workshop on Modeling U.S. and EU Agricultural Policy

October 2004

Overview of the 2002 Farm Act and U.S. Program Payments:

Modeling Issues and Challenges

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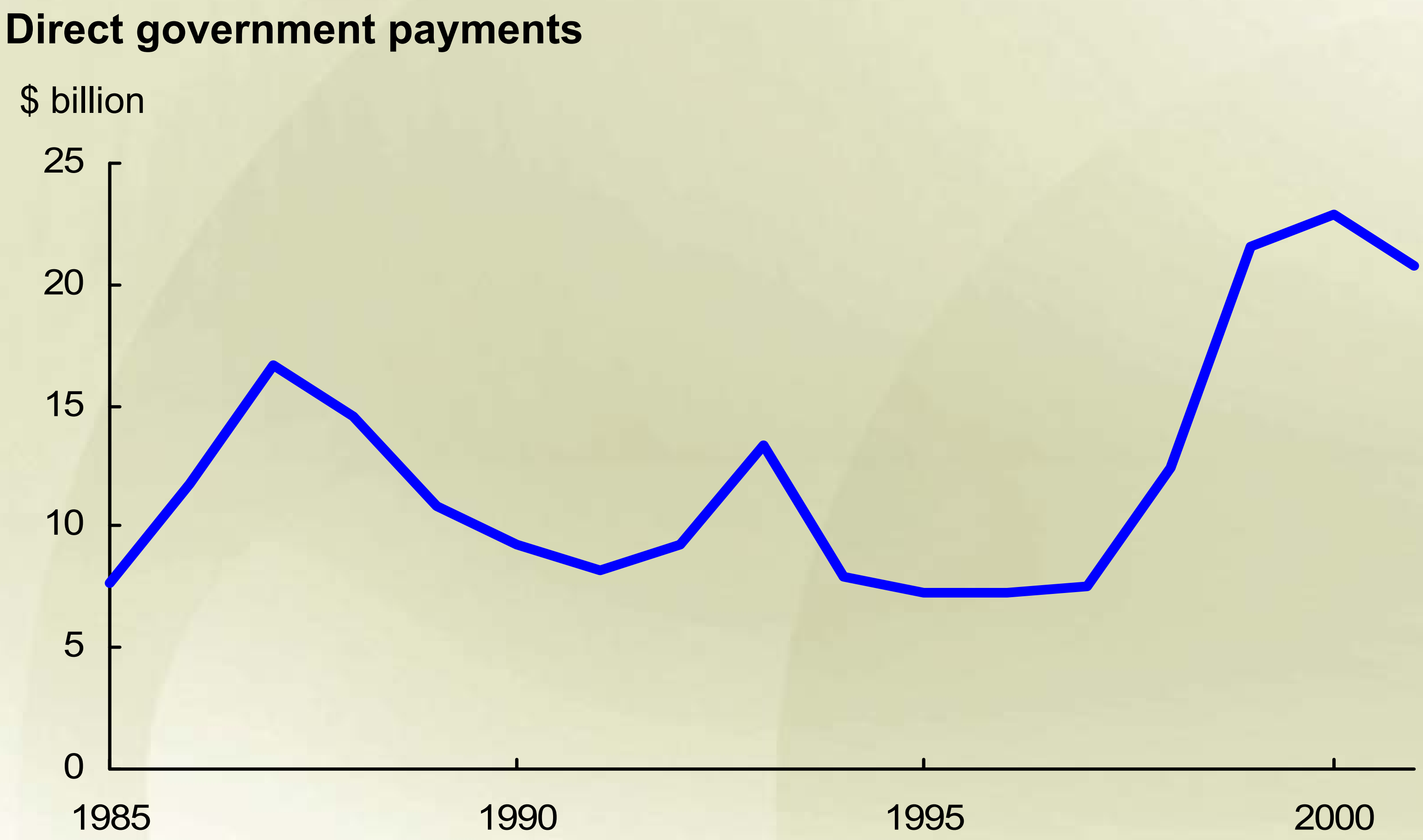
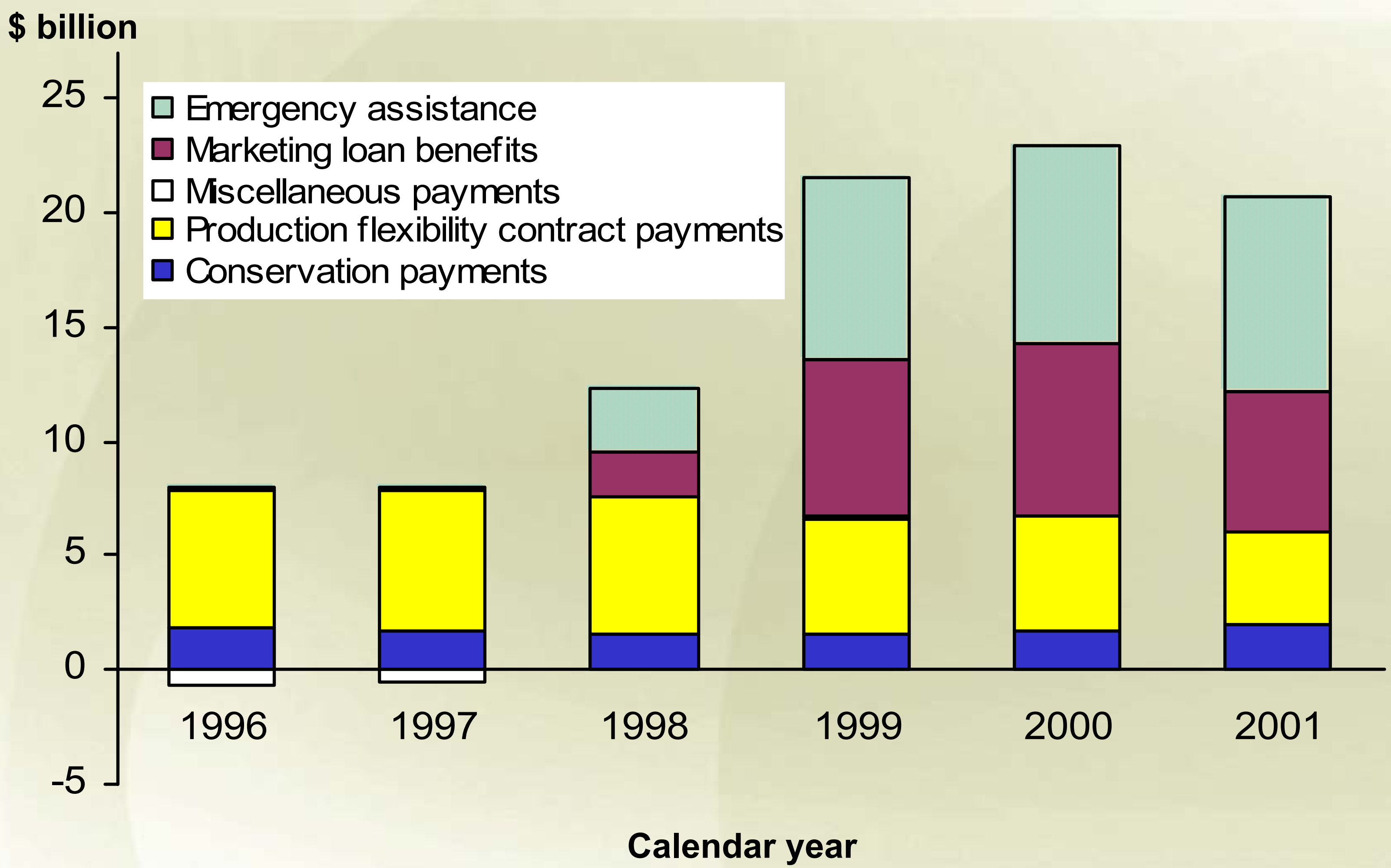
Government payments, 1985-2001

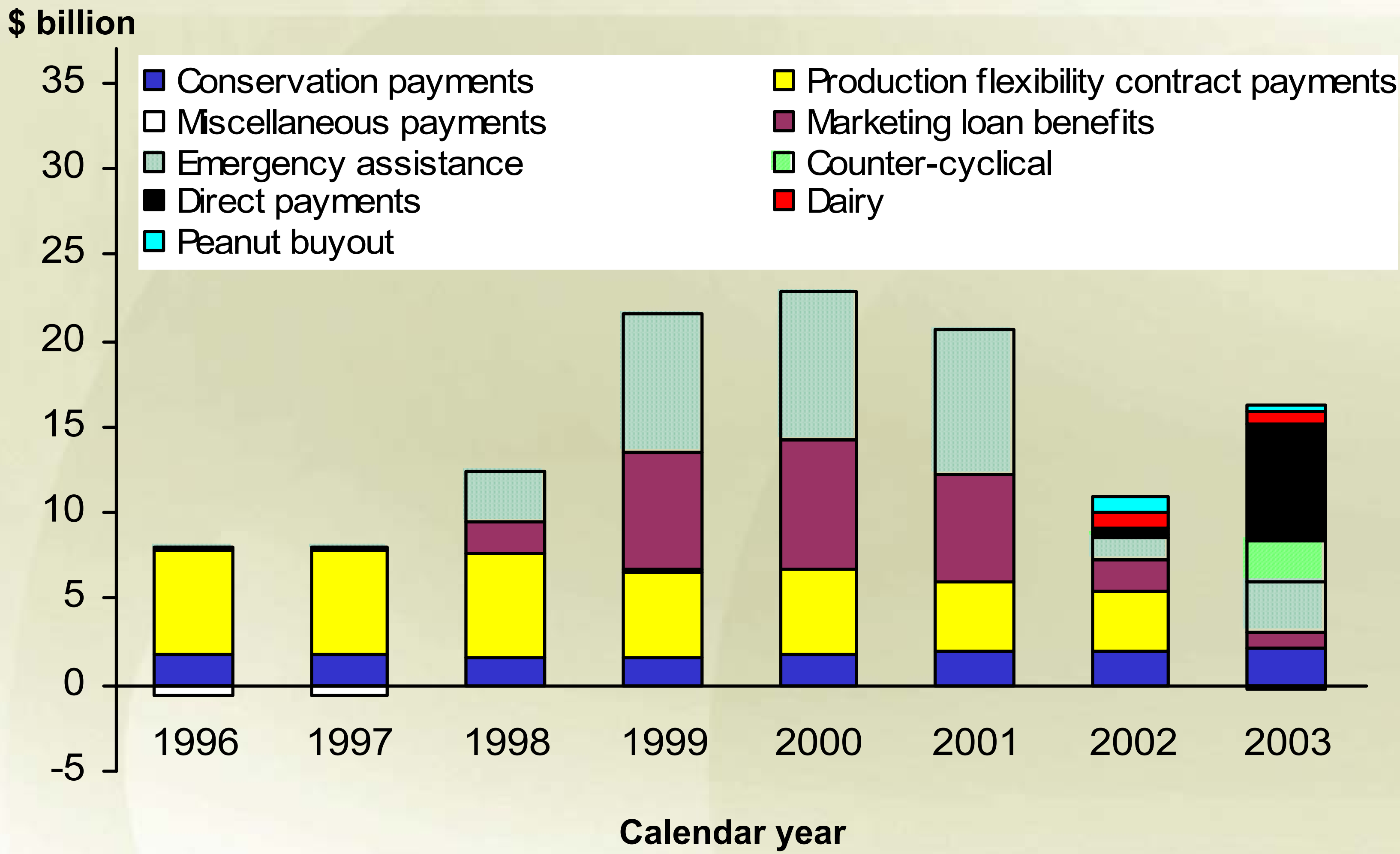


Direct government payments, 1996-2001



Source: Economic Research Service, USDA.

Direct government payments, 1996-2003



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Presentation Overview

- Background
- 2002 U.S. Farm Act commodity programs
  - Marketing loans
  - Counter-cyclical payments
  - Direct payments
  - Other provisions
- Income support illustrations
- Modeling issues and challenges

2002 U.S. Farm Act
Major commodity programs

- Marketing loan program
  - Most loan rates raised, except soybeans, rice
  - Loan rates fixed
  - Additional commodities added
- New counter-cyclical payments
  - Price dependent payments
- Direct payments
  - Replace Production Flexibility Contract payments
  - Soybeans, minor oilseeds, peanuts added

2002 U.S. Farm Act
Commodity program properties

- Marketing loans coupled
  - Paid on current production
  - Depend on market prices
- Counter-cyclical payments mostly decoupled
  - Do not depend on current production (fixed acreage base and payment yield)
  - But depend on market prices
- Direct payments fixed and decoupled
  - Do not depend on current production or market prices

Other 2002 Farm Act Provisions: Updating base acres & program payment yields

- Base acreage designation options
  - Keep PFC acreage as base acres
  - Options to add oilseeds to PFC acreage
  - Update to reflect 1998-2001 plantings
- Payment yield designation options
  - Only for counter-cyclical payments
  - Only if updated base acres
  - PFC payment yields or 2 options using 1998-2001 yields
- Payments made on 85 percent of base acres times program-specific payment yield

Direct payments: Fixed rates

Commodity	Direct payment rate
Wheat	0.52
Corn	0.28
Sorghum	0.35
Barley	0.24
Oats	0.024
Soybeans	0.44
Other oilseeds	0.008
Upland cotton	0.0667
Rice	2.35
Peanuts	36

Rates are dollars per bushel except for other oilseeds & upland cotton (per lb), rice (per cwt), and peanuts (per ton).

Counter-cyclical payments: Legislative formulas, corn

- CCP payment rate $_{\text{corn}}$ =

  (Target price) $_{\text{corn}}$

  – (Effective price) $_{\text{corn}}$

- Effective price $_{\text{corn}}$ =

  (Higher of commodity price or loan rate) $_{\text{corn}}$

  + Direct payment rate) $_{\text{corn}}$

Counter-cyclical payments: Formula for corn

- CCP payment rate $_{corn}$ =

  (Target price) $_{corn}$

  – (Direct payment rate) $_{corn}$

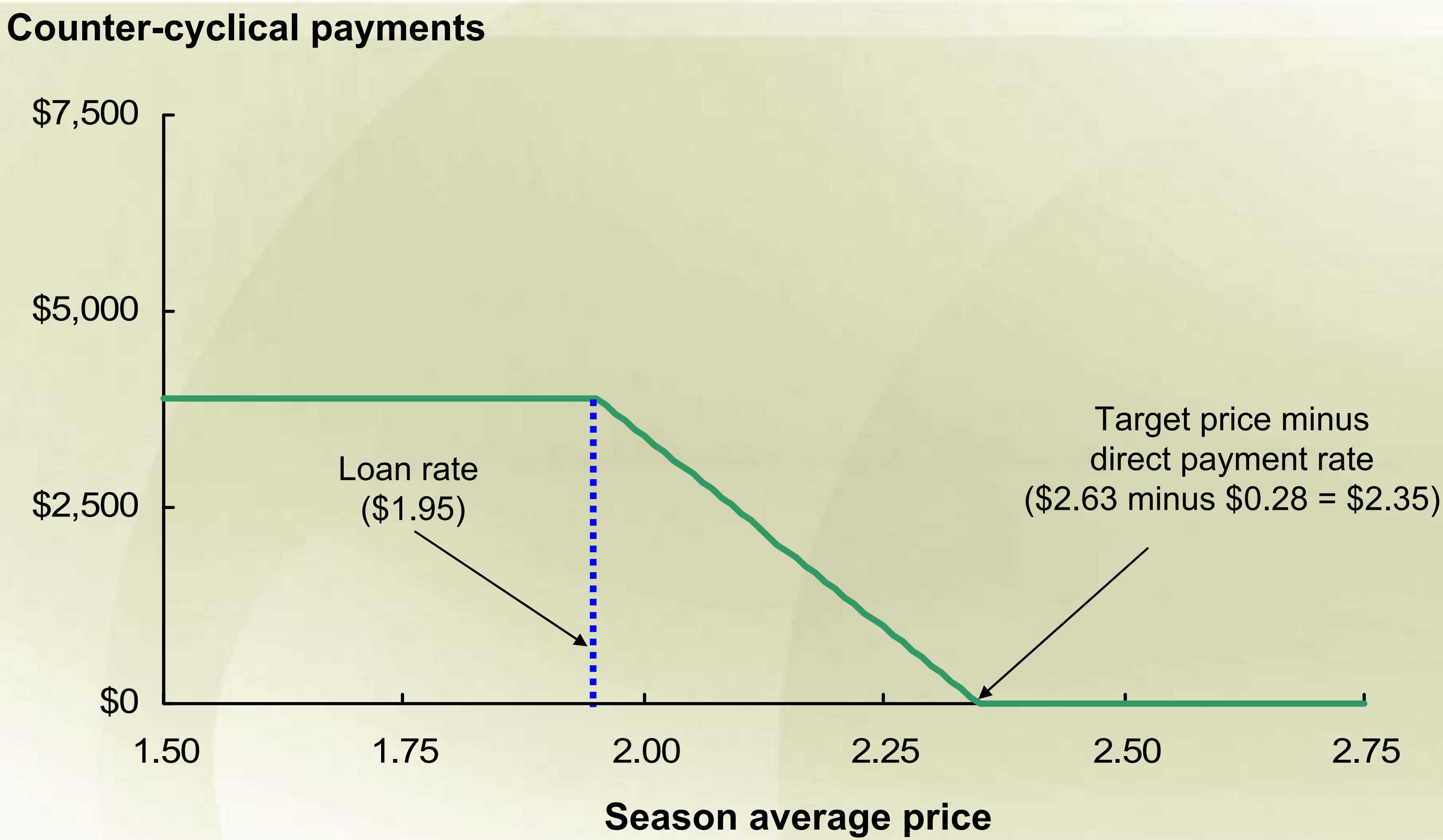
  – (Higher of commodity price or loan rate) $_{corn}$

Counter-cyclical payment illustrations

Corn	**2004 program provisions**
	$/bushel
Target price	2.63
Direct payment rate	0.28
Implicit "effective target price"	2.35
Loan rate	1.95

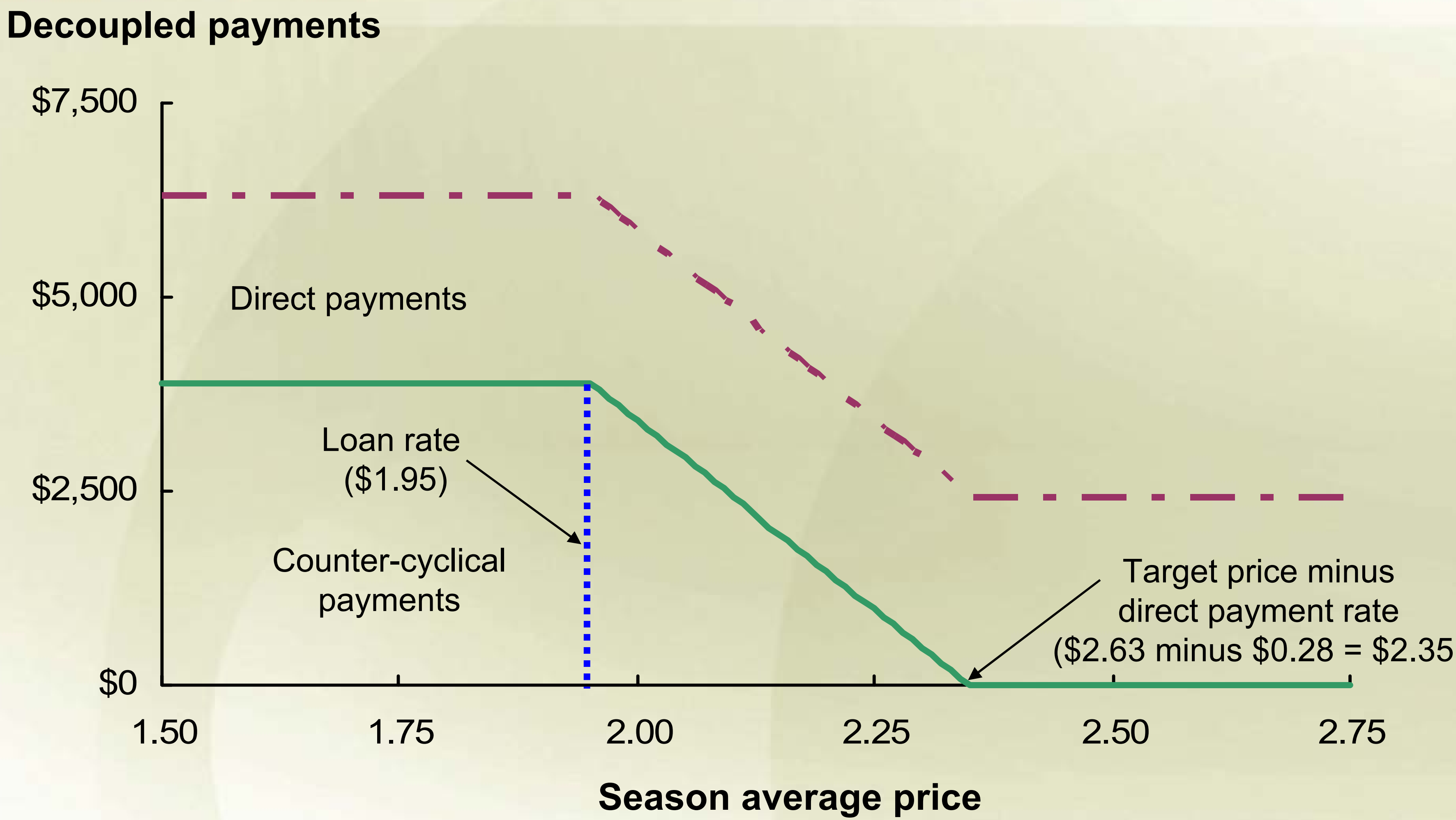
"Effective target price" (for counter-cyclical payments) equals target price minus direct payment rate; $2.63 - $0.28 = $2.35 for corn.

Counter-cyclical payments for corn under the 2002 Farm Act, 2004 program provisions



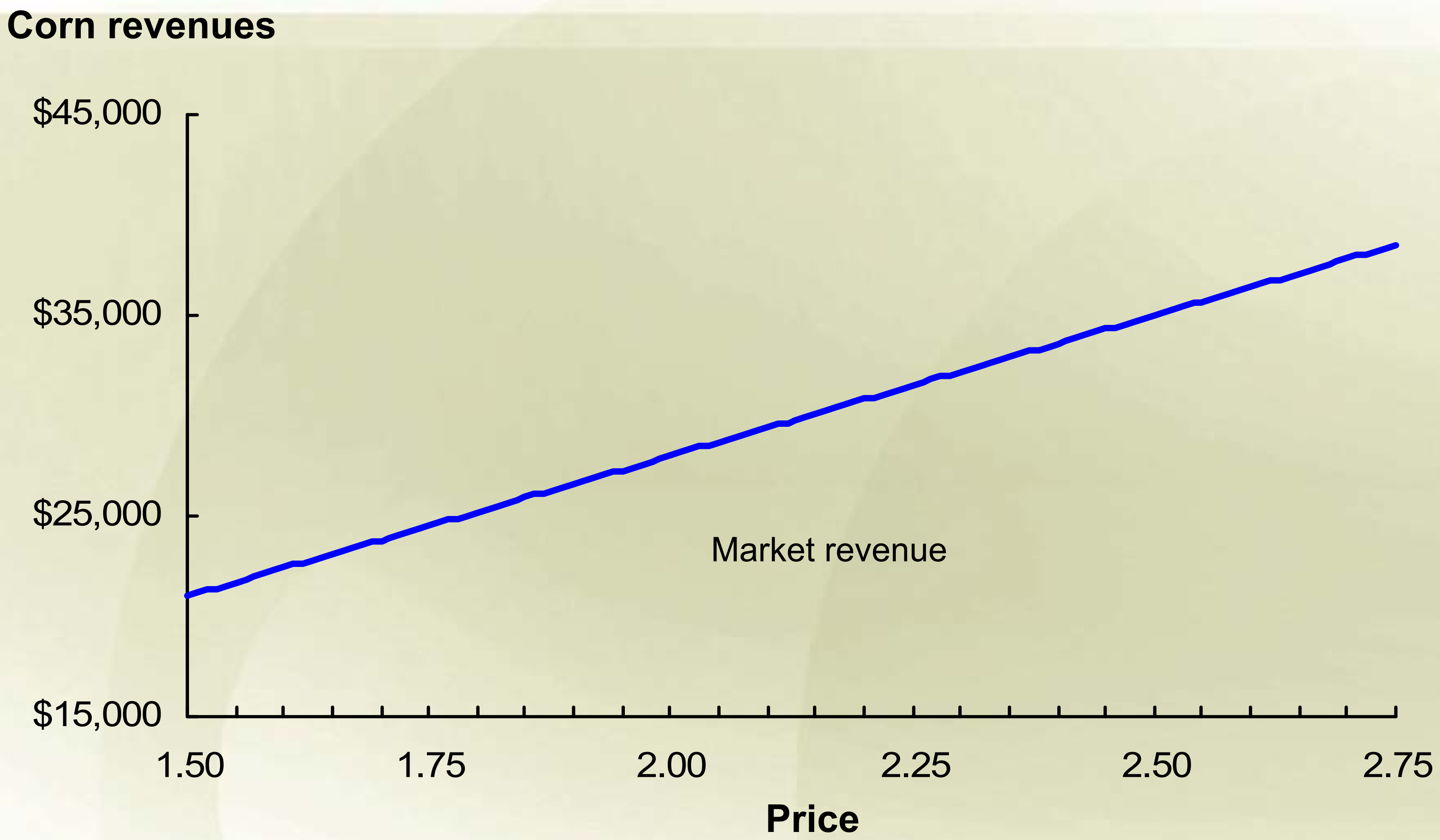
Assumes 100 acres corn base, 114.4 bushels/acre counter-cyclical payment yield.

Counter-cyclical and direct payments for corn under the 2002 Farm Act, 2004 program provisions



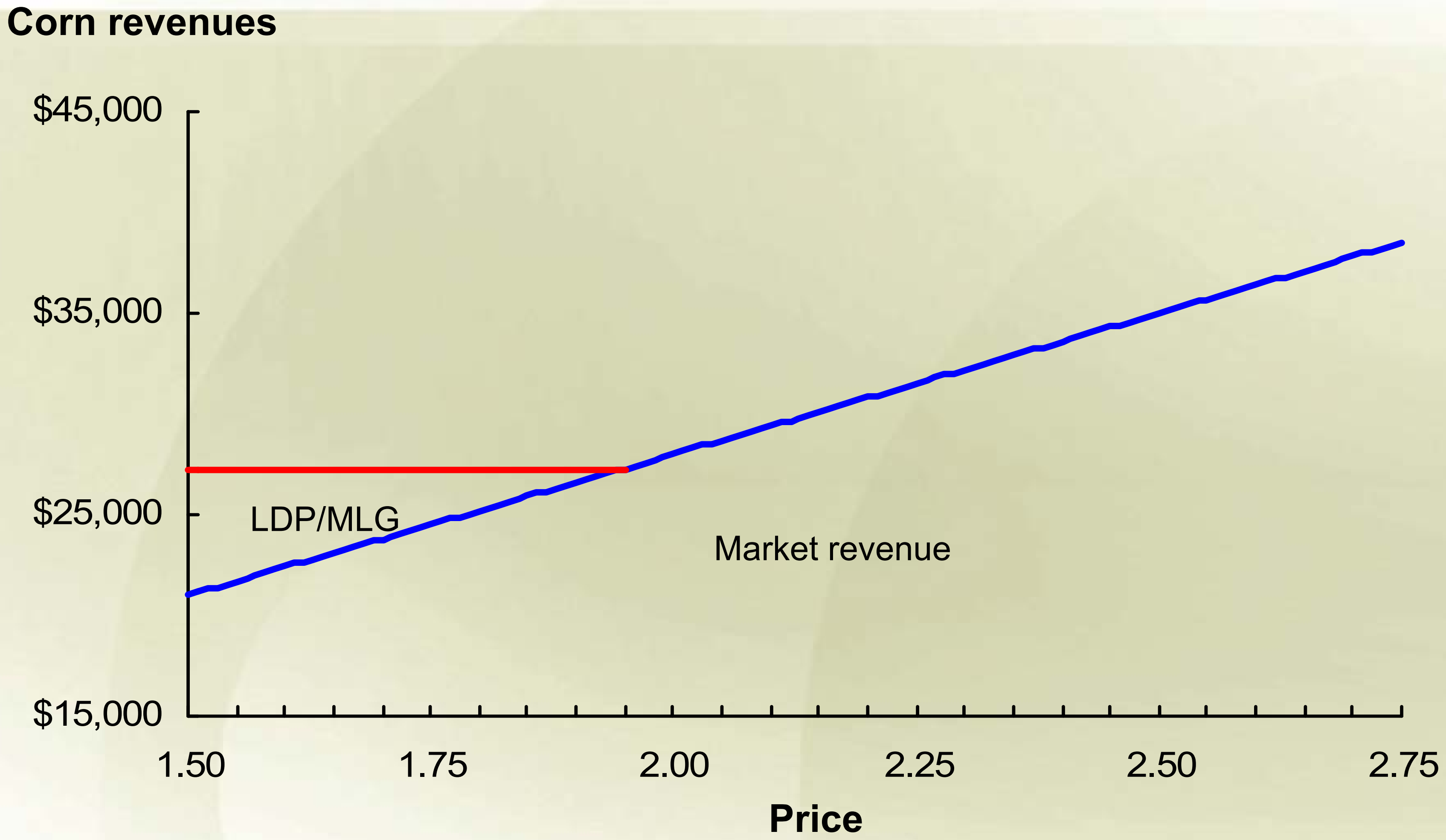
Assumes 100 acres corn base, 114.4 bushels/acre counter-cyclical payment yield, 102.4 bushels/acre direct payment yield.

Corn revenues under the 2002 Farm Act



Assumes 100 acres corn, 140 bushels/acre yield.

Corn revenues under the 2002 Farm Act



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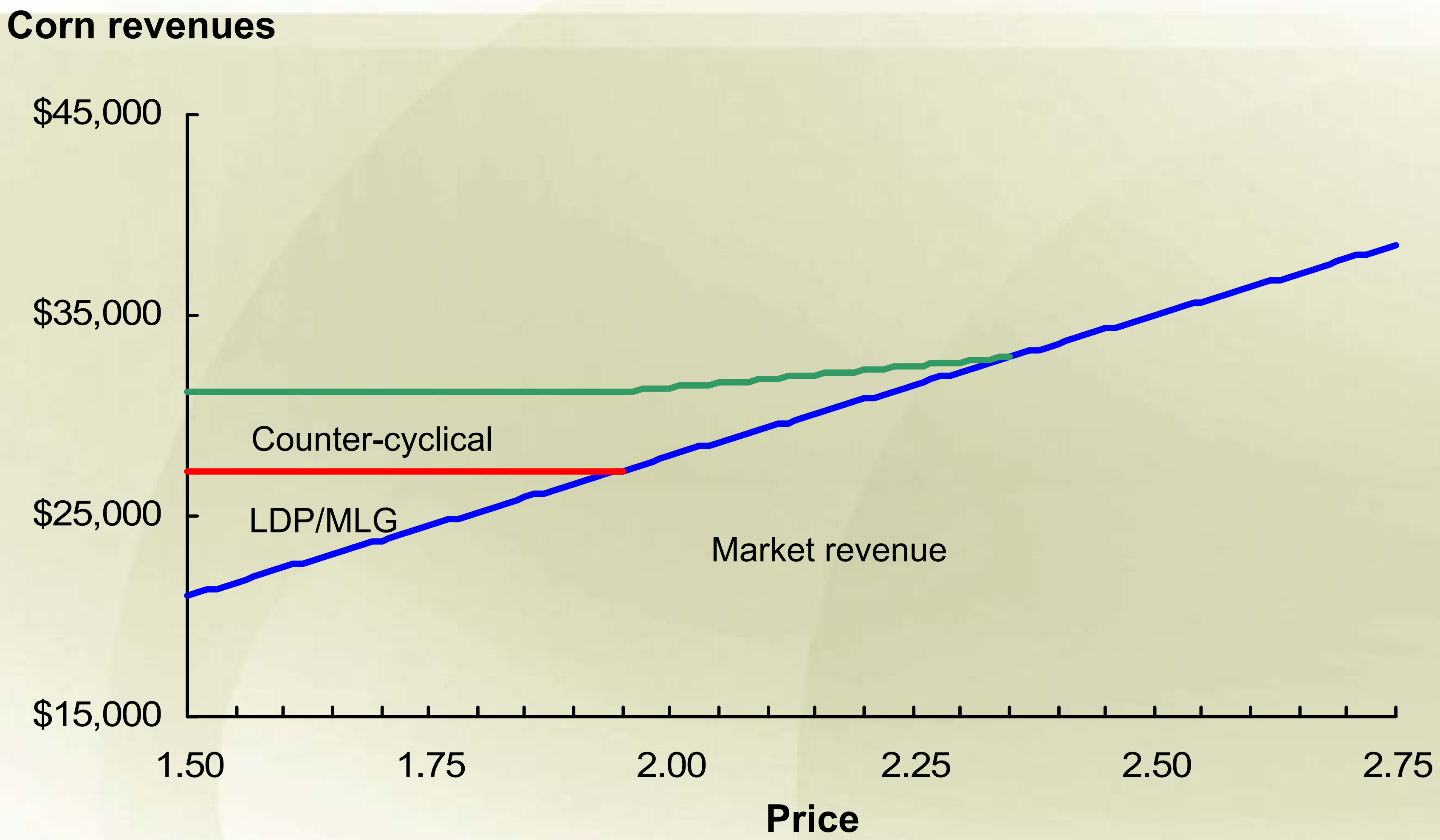

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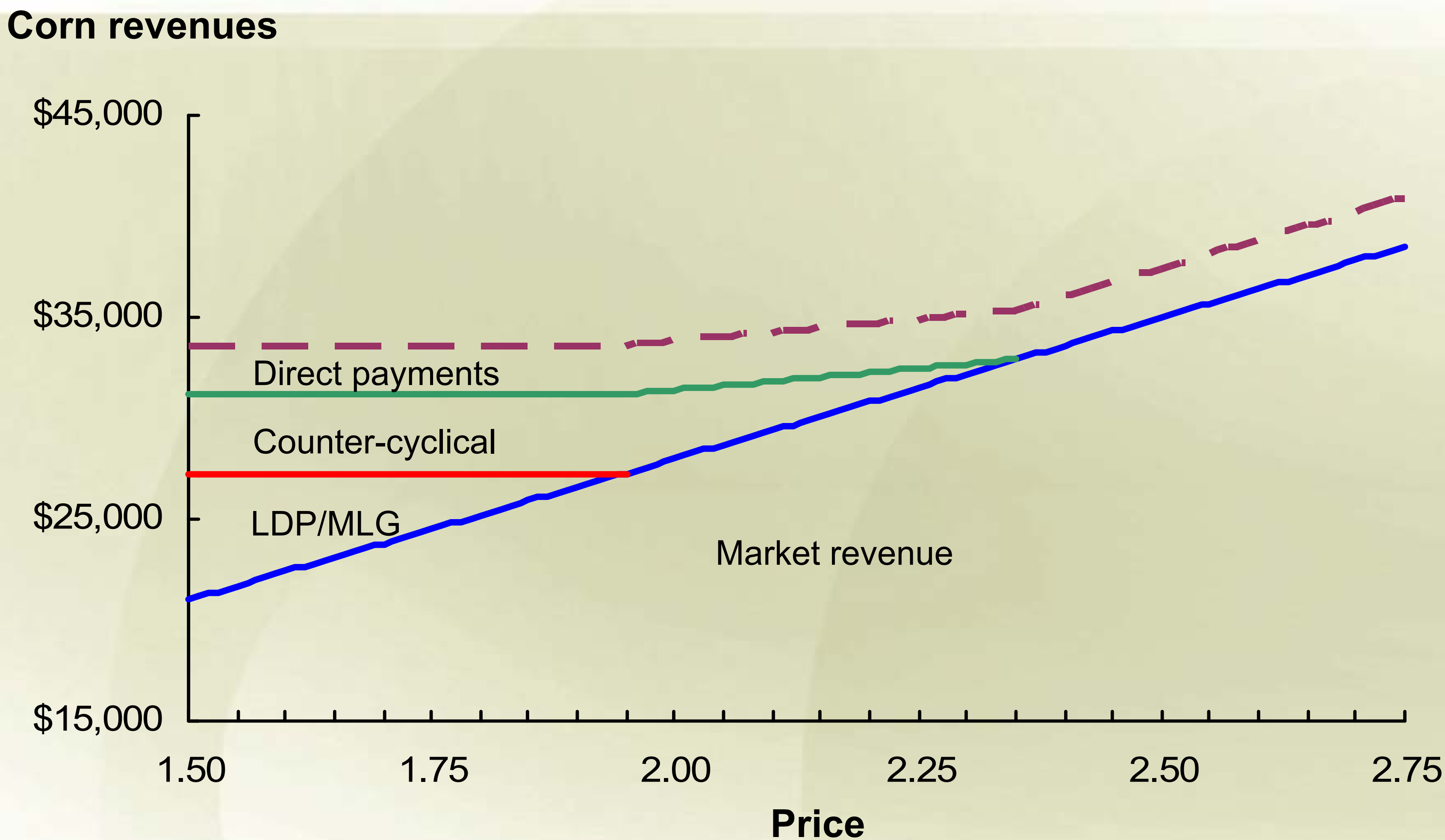

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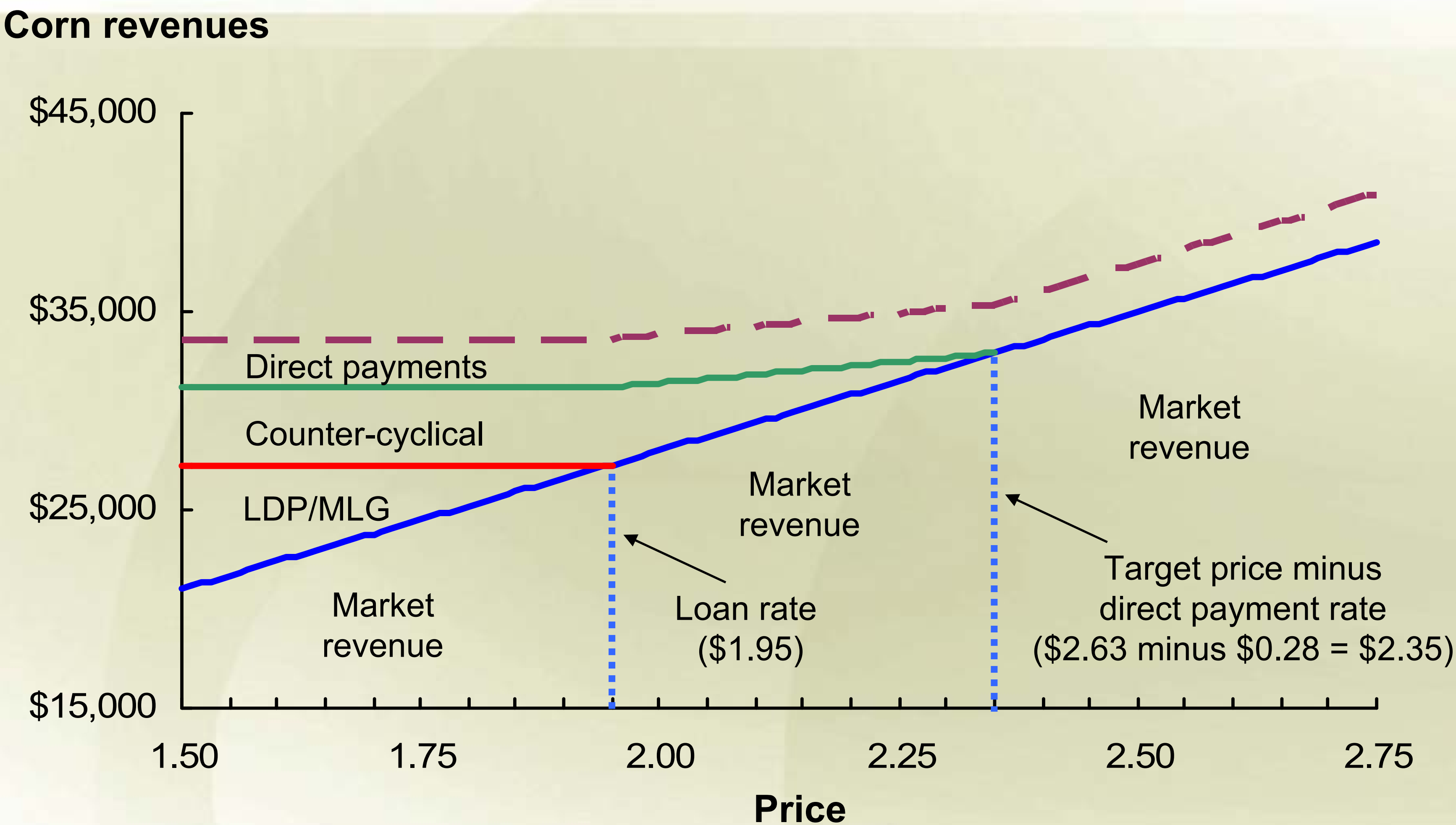

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Modeling Issues:
Decoupled & Partly Decoupled Payments

Decoupled payment issues

- U.S. experience with Production Flexibility Contract payments (PFCs)
  - Decoupled payments do not affect net returns of production alternatives
  - Fixed income transfers to farm households
    - Wealth effects
  - Role of risk attitudes of farmers
  - Effects on investment
  - Farmland leases
    - Pass through of benefits to landlords
  - Short-run vs. longer term adjustments

Counter-cyclical payment issues

- Paid on a fixed, pre-determined quantity
  - Decoupled from actual production
- CCPs are price dependent
  - CCPs linked to market prices in range from loan rate to "effective target price"
- Not part of net returns, but . . .
- . . . Price dependence implies CCPs correlated with net returns in that price range
  - Negative correlation between expected net returns & counter-cyclical payments

Counter-cyclical payment questions

- CCPs affect price-related revenue risk
  - Role of risk attitudes and level of risk aversion
  - What if plant much different quantity than associated with base acres?
  - What if plant another crop?
  - What if plant no crop or one with little price correlation to the base acreage crop?
- Interaction with other programs