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# Federal Crop Insurance and Farm Programs — Will WTO or Budget Concerns Shape the Debate?

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# WTO Implications

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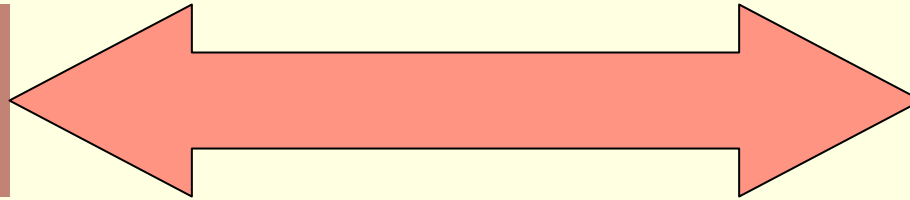
- Assuming there are no breakthroughs:
  - we deal with the current agreement
- Decoupling – breaking the incentive to produce for the program
  - Reducing the distortions in the market signals
  - **“it shall not relate to the type or volume of production** (including livestock units) undertaken by the producer; **or to the prices, ....”**
- Creates a government risk management policy dilemma

# WTO Implications

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The Policy Trade-Off We Face

WTO  
Decoupling



Risk  
Management



# The Two Best Bets for WTO Compliance

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- The current direct payment program without the fruit and vegetable provision.
  - Does not help with risk
- A whole farm revenue guarantee with a 70% trigger that subsumes crop and livestock revenue.
  - Simple in theory
  - Complicated in practice
  - Not very attractive

# Budget Dilemma

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- Good prices are reducing the baseline
- Similar to 1996?
- I will be a contrarian
  - As long as corn is a commodity – we will find a way to produce more
  - and low prices will return.



# The Nature of Agricultural Risk

- Crop price – homogeneous
  - Across regions and crops
  - Most program crop producers face fairly similar price risk and commodity program effects on a per unit basis

<b>Price Variability Across Crops</b>					
	<b>Cotton</b>	<b>Corn</b>	<b>Soybeans</b>	<b>Wheat</b>	<b>Sorghum</b>
<b>Coefficient of Variation</b>	<b>0.173</b>	<b>0.172</b>	<b>0.158</b>	<b>0.176</b>	<b>0.180</b>

Source: 1975-2005 NASS Annual Prices

# The Nature of Agricultural Risk

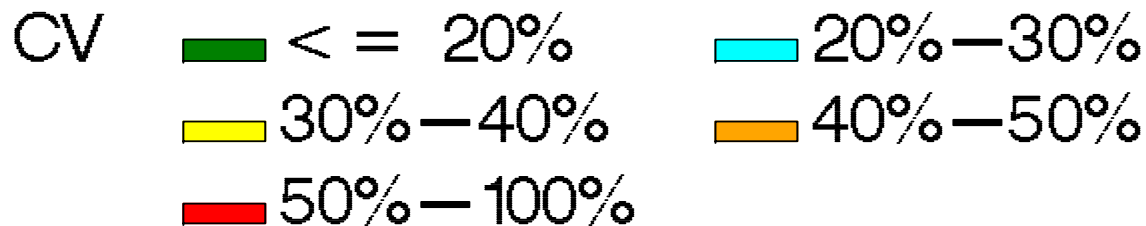
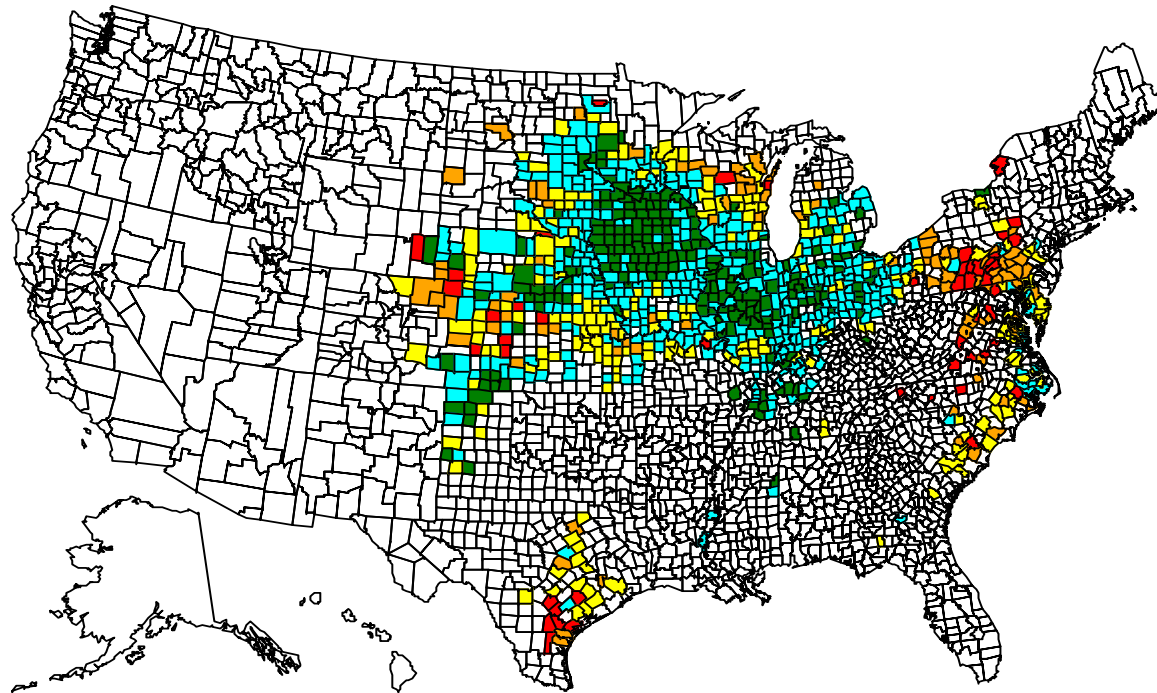
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- Crop yield risk – heterogeneous
  - Varies by crop
  - Varies by region
  - Varies by production practice
- Crop revenue risk – dominated by yield risk
- Because yield and revenue risk are heterogeneous
  - diminish with aggregation



# Yield Risk Varies Dramatically by Region

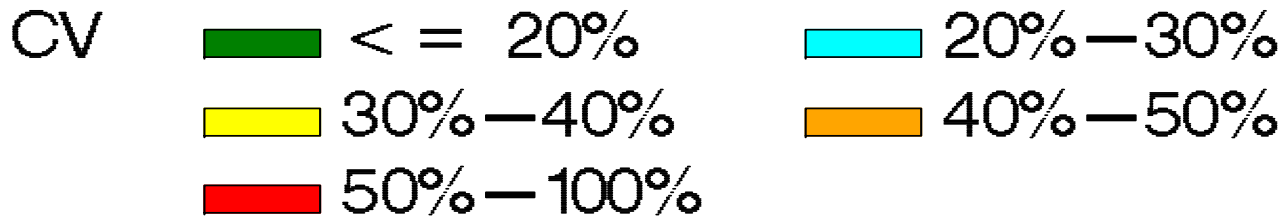
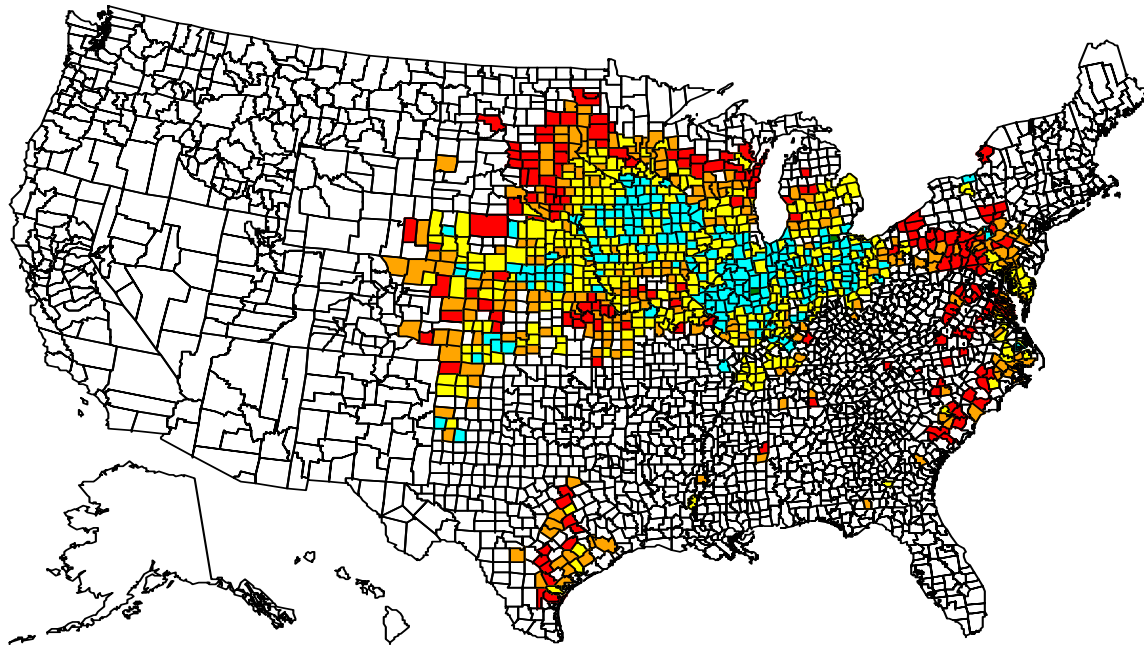
Corn Yield Coefficient of Variation





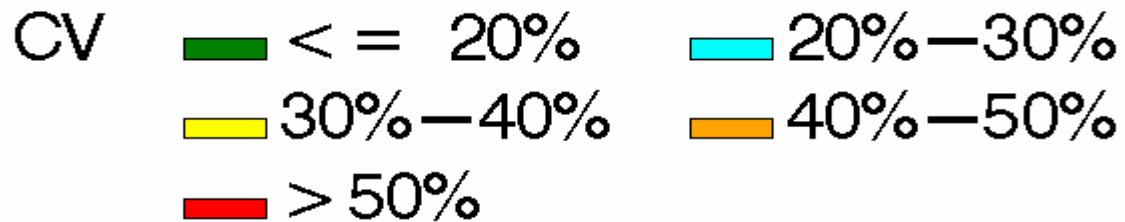
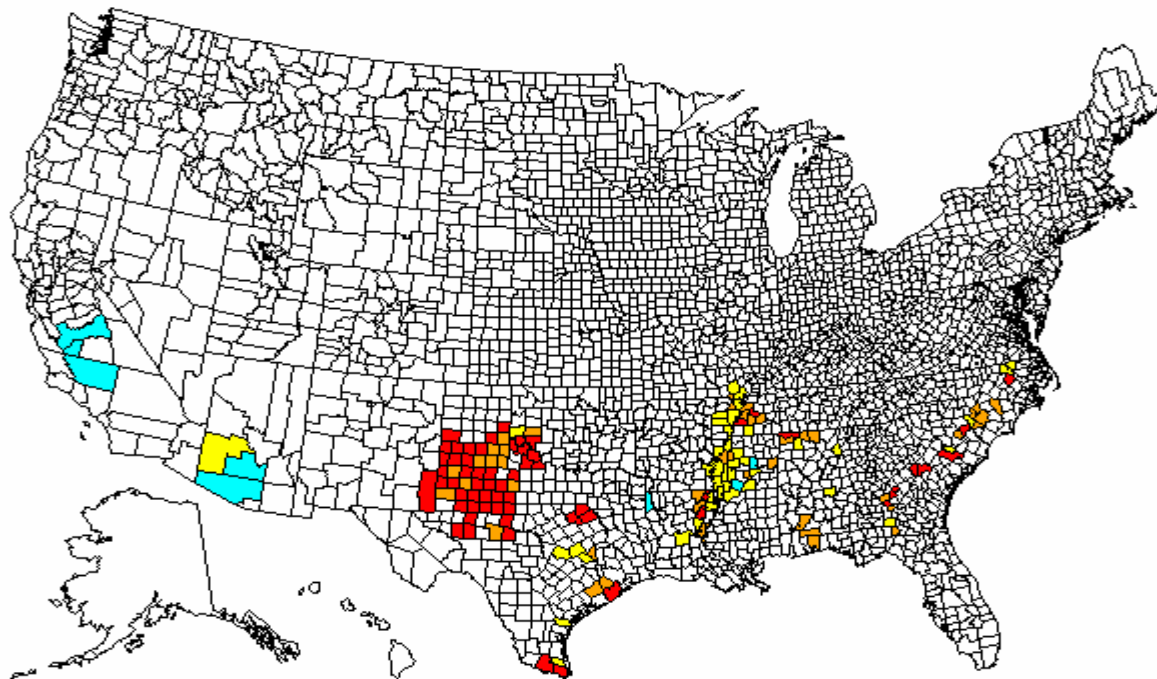
# Revenue Risk is Driven by Yield Risk

Corn Revenue Coefficient of Variation



# Revenue Risk is Driven by Yield Risk

Cotton Revenue Coefficient of Variation

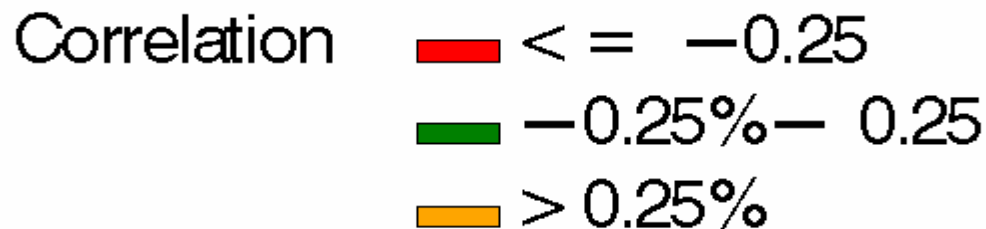
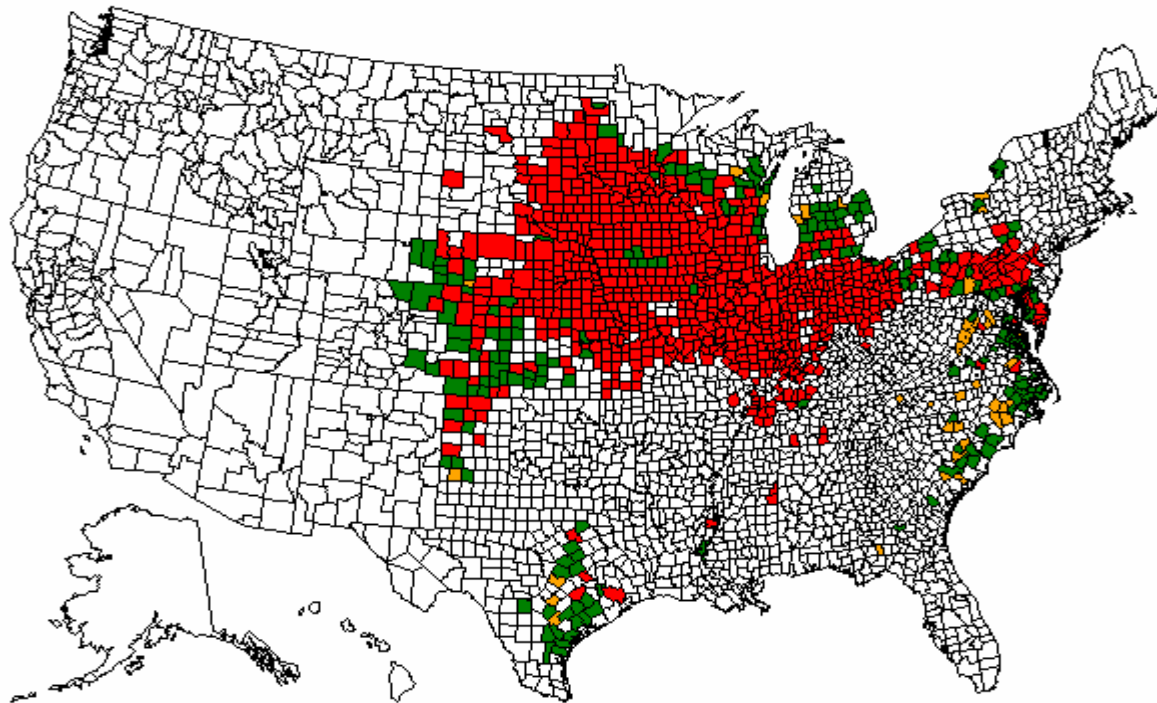


# Correlation of County Corn Revenue to National Corn Revenue

	Correlation of Price to National Price	Correlation of Revenue to National Revenue
Buffalo County, NE	0.99	0.82
Fulton County, IL	0.99	0.80
Noxubee, County, MS	0.84	0.60
Boone County, IA	0.99	0.90
Beaufort County, NC	0.93	0.68

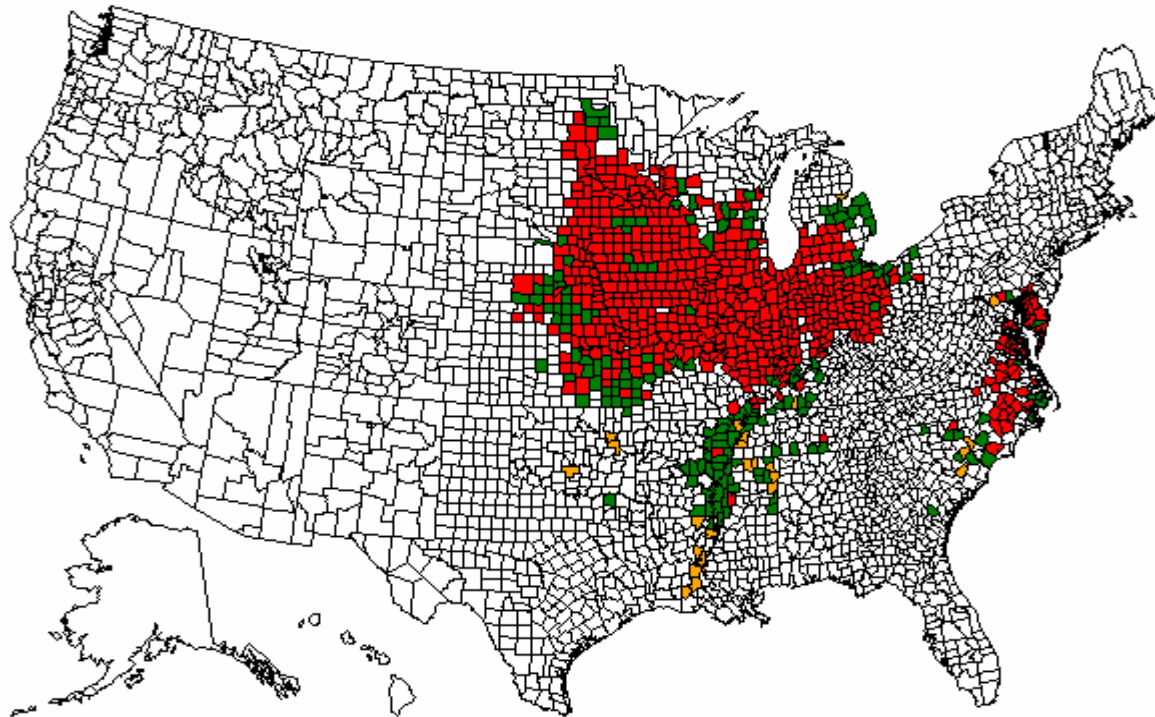
# Perceptions of Yield Price-Correlation

Corn Price—Yield Correlations



# Perceptions of Yield Price-Correlation

Soybean Price—Yield Correlations



Correlation

- $\leq -0.25$
- $-0.25\% - 0.25$
- $> 0.25\%$

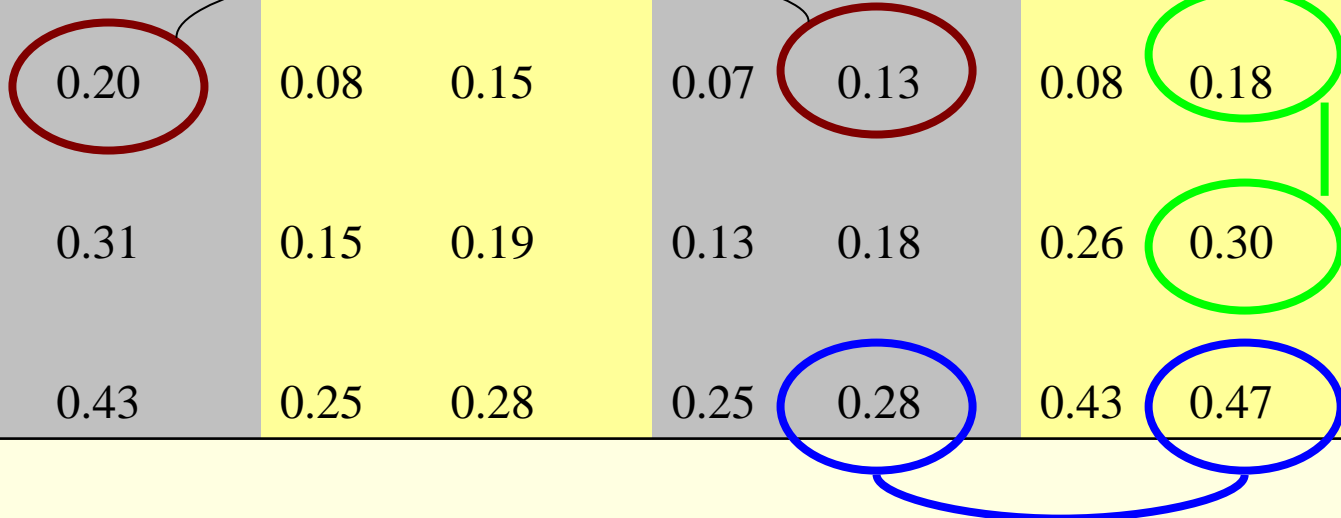
# Food for Thought

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- Revenue triggered programs
  - Generally popular in Corn Belt where there is negative price-yield correlation
  - Less popular elsewhere where there is little price-yield correlation
- Revenue variability
  - Higher for cotton and wheat
  - Higher outside of the Corn Belt

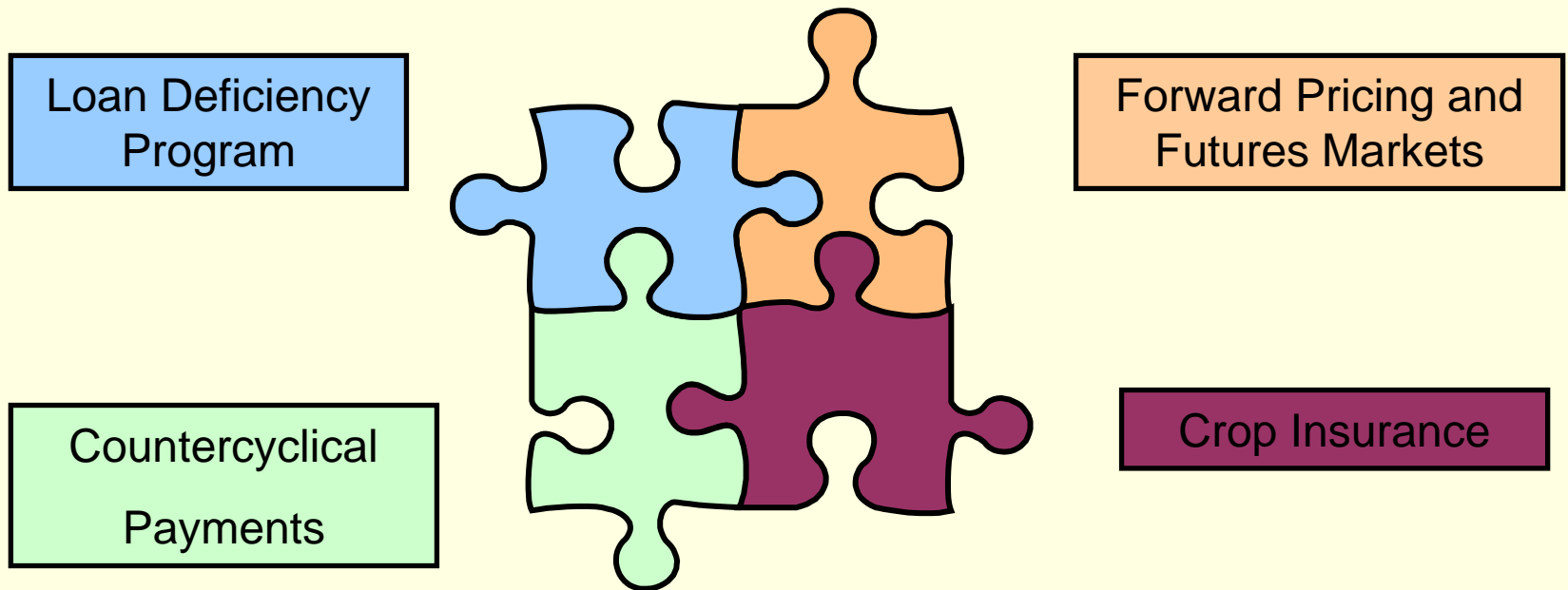
# The Effect of Aggregation on Yield and Revenue Variability

Coefficient of Variation								
	Cotton		Corn		Soybeans		Wheat	
	Yield	Revenue	Yield	Revenue	Yield	Revenue	Yield	Revenue
National	0.11	0.20	0.08	0.15	0.07	0.13	0.08	0.18
Average County	0.26	0.31	0.15	0.19	0.13	0.18	0.26	0.30
Average Farm	0.39	0.43	0.25	0.28	0.25	0.28	0.43	0.47



# The Risk Management Puzzle for Crop Producers

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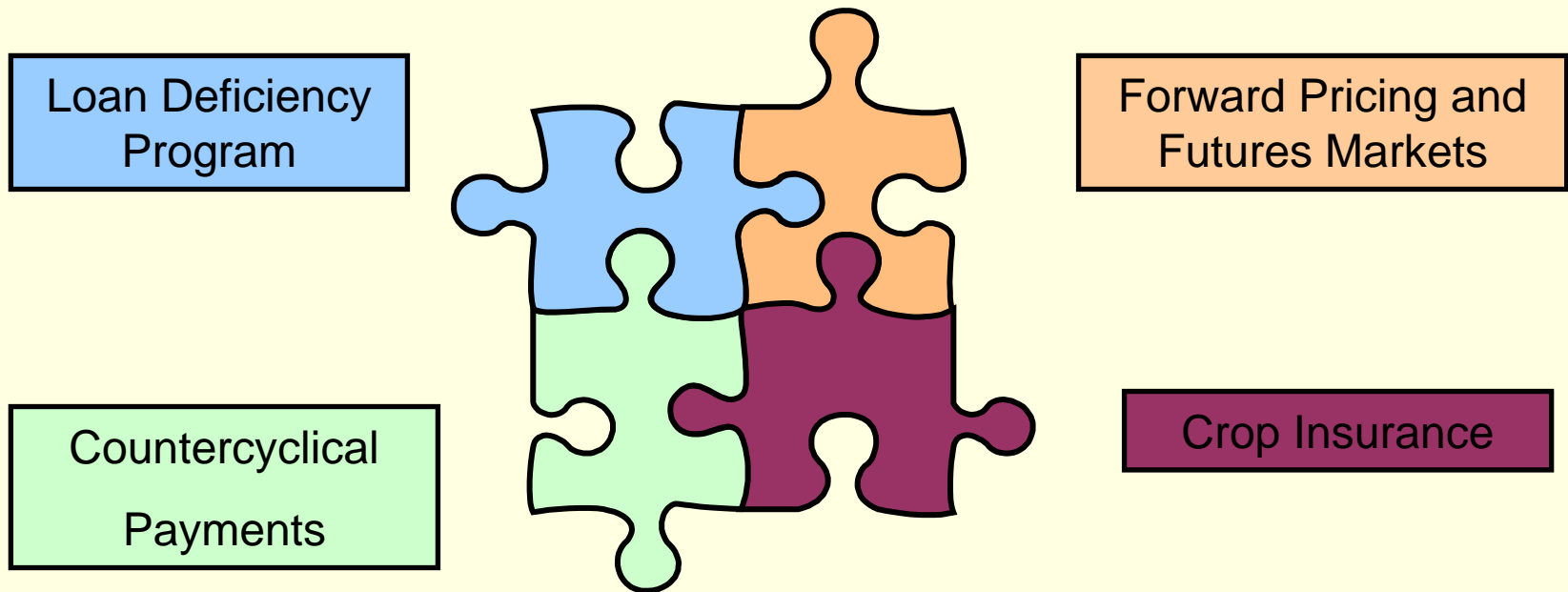


- Decoupled Countercyclical Payments
- Insurance – yield, revenue, or revenue with upside protection



# The Risk Management Puzzle for Crop Producers

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- Duplication of coverage – LDP, RA-HPO, forward pricing
- Coble, Heifner, Zuniga – Producers need to adjust forward pricing to reflect the commodity programs and crop insurance.

# Government Role in Risk Management

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- The best justification for government intervention is market failure
  - Government should concentrate on providing the protection farmers cannot obtain from the market place.
    - Many major commodities can get short-term, but not long-term price protection from futures market
    - Traditionally yield risk not offered by market due to
      - Systemic risk
      - Asymmetric information

# Government Role – Crop Insurance

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- So what does this imply?
  - Emphasize the aspects of crop insurance that deal with farm-level yield risk
  - Improve rates
    - Producer value
    - Company earnings
  - High prices = increased liability = increased program cost
  - Disaster programs are politically attractive but usually ad hoc = conflict with crop insurance
  - Layering proposal are preferable to recent ad hoc disaster bills

# Government Role – Commodity Title

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What it would take to achieve green box would not be politically acceptable risk protection

- Avoiding conflict with private price risk tools
  - Establish price targets and let producers hedge short term price risk
- Integrating commodity programs and crop insurance
  - Wraps
  - Layers