

A background image of a Purdue University campus. In the foreground, there is a large, modern fountain with several tall, curved, metallic structures. In the background, a large, classical-style building with a portico and columns is visible, surrounded by trees with pink blossoms. The sky is blue and clear.

Incorporating Conservation Practices and Improvements in Cropland Leases

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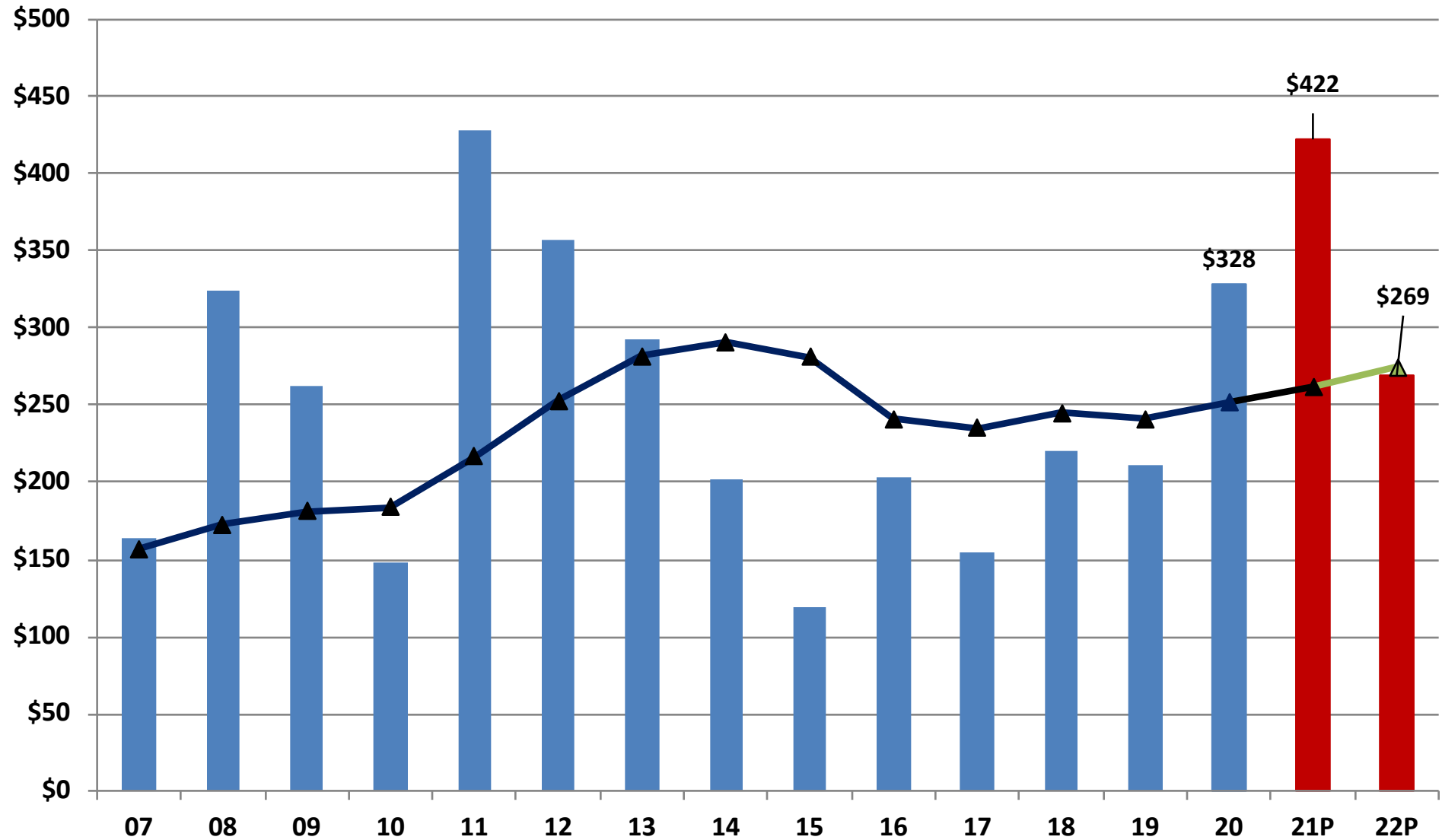
Center for Commercial Agriculture

Purdue University

Cash Rent and Net Return to Land

Cash Rent and Net Return to Land, West Central Indiana

Net Return to Land Cash Rents



Recent Research

- There is a significant and positive relationship between cash rent and net return to land.
- The short-term adjustment coefficients range from 0.05 for low productivity land to 0.10 for medium and high productivity land.
- Using a value of 0.10, a \$100 increase in the net return to land would result in a \$10 increase in cash rent in the subsequent year.

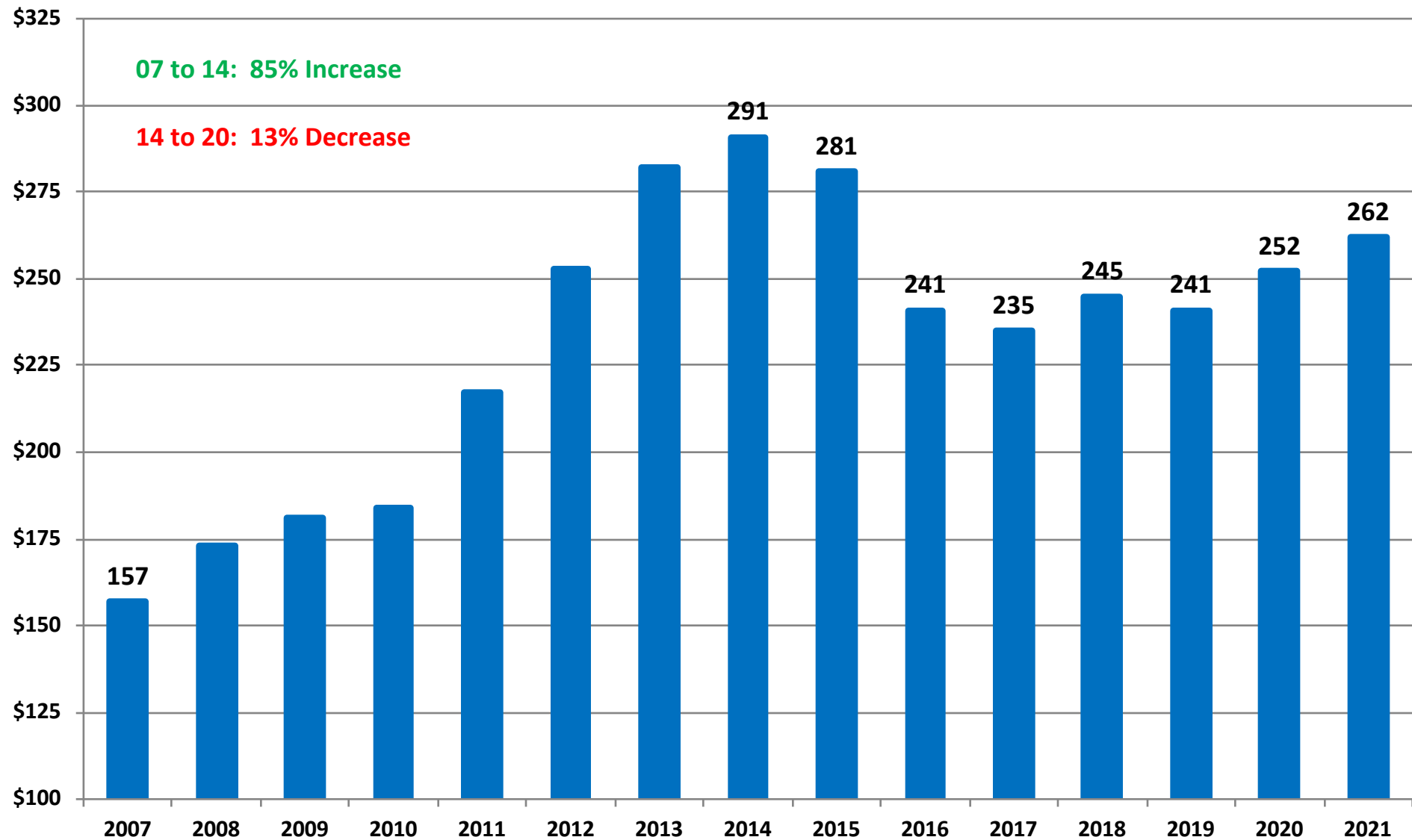
Land Valuation

Land Valuation

- Factors Impacting Land Values
 - Cash Rent
 - Discount Rate (Capitalization Rate)
- Net Present Value
 - $V_0 = CR / i$

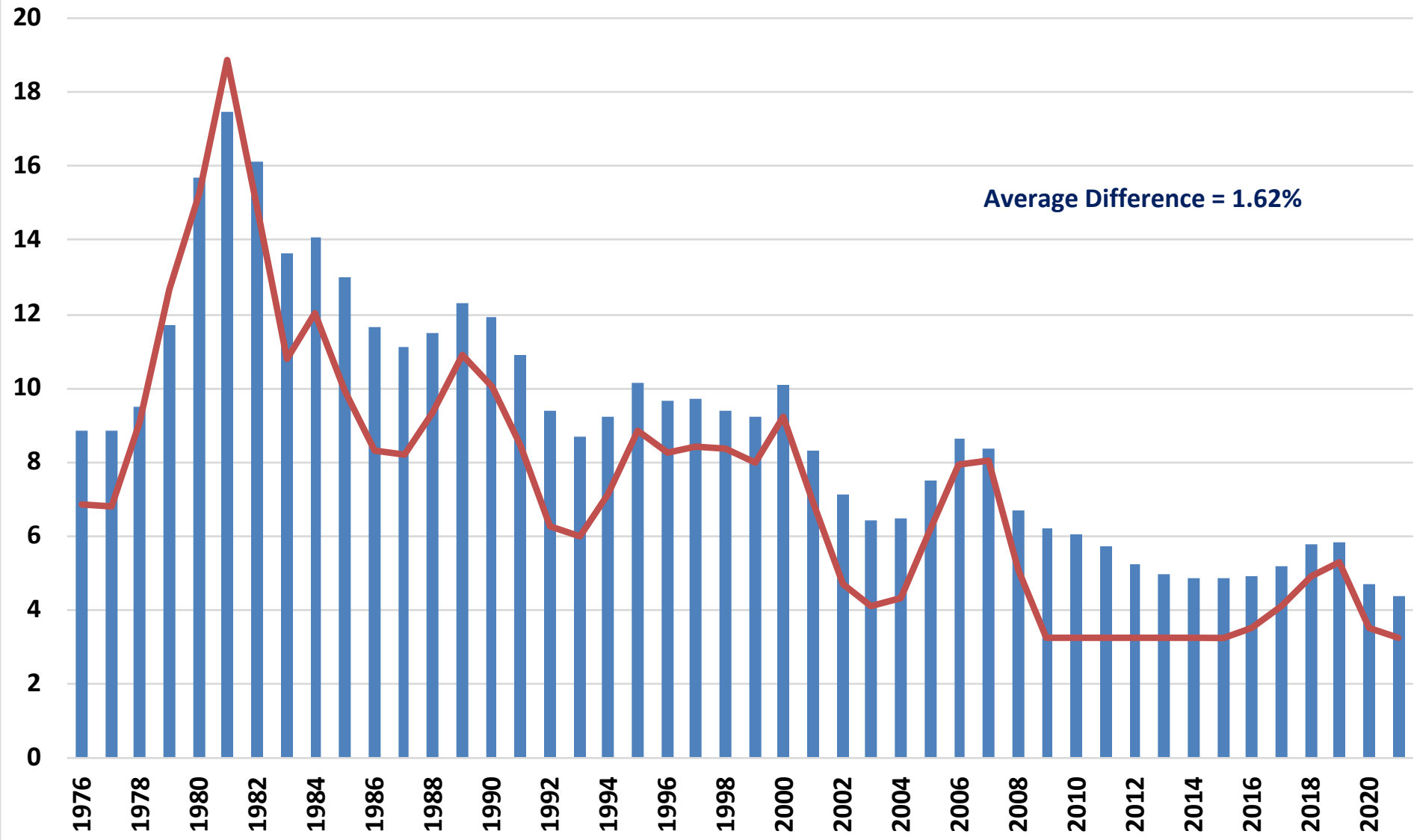
where V_0 is net present value, CR is cash rent, and i is the discount rate

Cash Rent, West Central Indiana Average Land Productivity



FRB of Chicago Operating Interest Rates and Prime Interest Rate

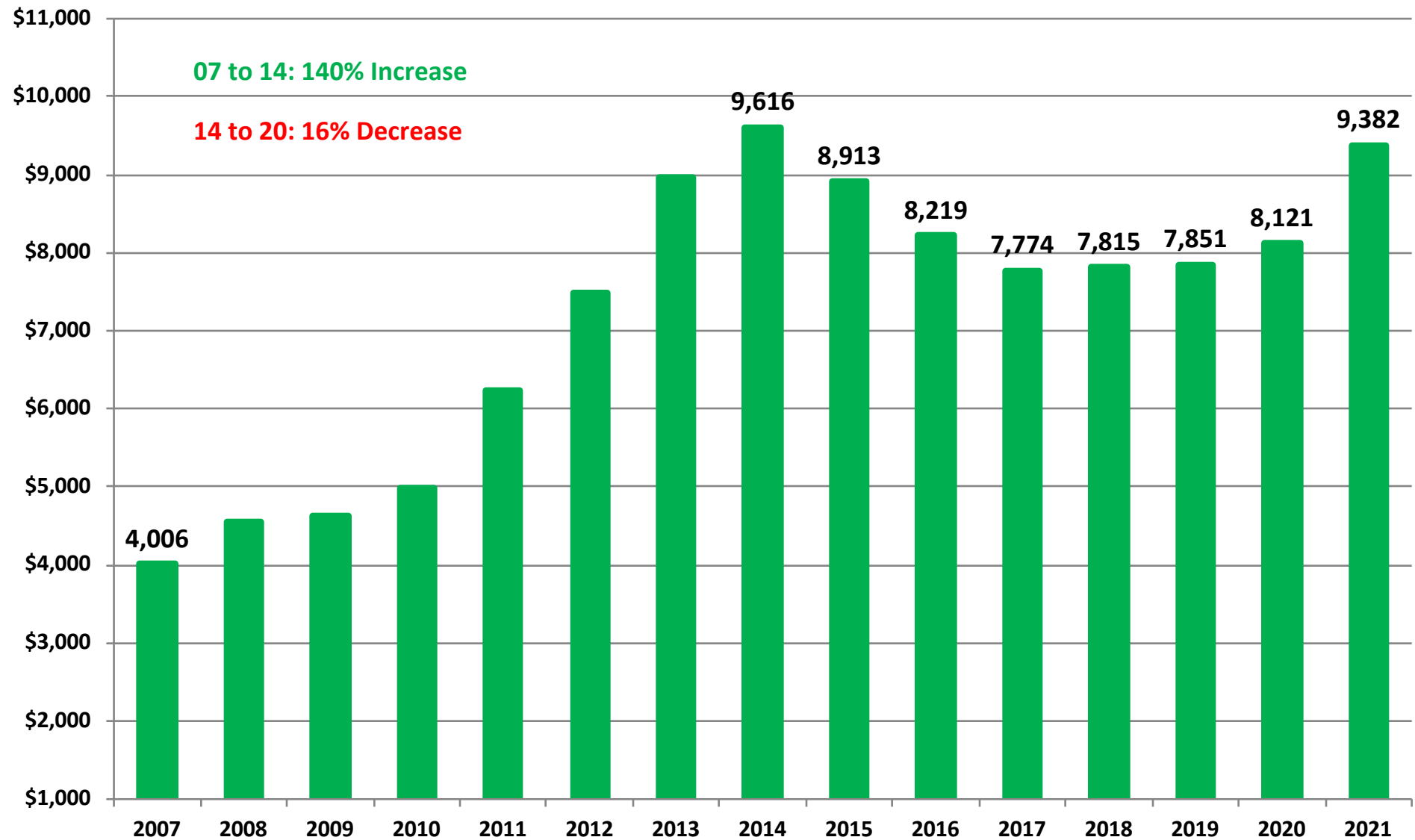
Operating Interest Rate Prime Interest Rate



Average Difference = 1.62%

Land Values, West Central Indiana

Average Land Productivity



Bottom Line

- Anything that positively impacts net return to land will lead to increases in cash rents and land values.
- Examples:
 - Improving Cost Efficiency (e.g., changes in seeding rates; changes in fertilization rates and timing)
 - Tile Drainage
- Possible Examples:
 - Changes in Tillage
 - Adaptation of Cover Crops

Leasing Principles

Minimum Information

- Legal description of the land
- Term of the lease
- Amount of rent to be paid or how rent will be computed if you are dealing with a crop share or a flexible cash lease
- Names of owner and operator (i.e., tenant)
- Signature of all parties
- Dates and procedures for notification of lease renewal and cancellation
- Provisions spelling out rights and responsibilities of each party

Objective of Each Lease

- The objective of every lease should be to provide a fair and equitable return to both parties for the inputs they contribute to the total farm operation.
- A fair and equitable arrangement exists when both parties are paid for the use of their inputs according to the contribution those inputs make toward generating income.

Risk Sharing

- Cash Rent Lease
 - Price and production risk are borne by the operator
- Crop Share and Flexible Cash Leases
 - Price and production risk are borne by both the operator and owner
- Risk Associated with Term of Lease
 - Cash rent leases adjust slowly to changes in the business climate while net returns for crop share and flexible cash leases typically change more rapidly.

Sharing of Costs

- For crop share leases, variable expenses that are yield increasing (e.g., fertilizer) should be shared in the same proportion as the crop share.
- As new technologies or management practices are adopted (e.g., no-till; cover crops), share arrangements need to be adjusted to reflect their impact on costs and returns.

Termination of a Lease

- At the termination of a lease, operators and landowners should be compensated for the unexhausted portion of long-term improvements.
- For example, lime applied to cropland typically lasts several years. If the operator pays for the lime, then the lease should provide for a mechanism to compute the remaining value of the lime when the lease is terminated.
- Other investments may include irrigation, conservation improvements, grain bins, and/or buildings.

Importance of Communication

- Communication is extremely important.
- It is prudent for an operator to provide updates of crop conditions throughout the year and make sure that crop shares and possible bonuses emanating from flexible cash leases are understood by both parties.
- Even though oral leases are common, they are not recommended. It is too easy for memories to fail, causing avoidable disagreements.

Multi-Year Leases

Reasons for Using Multi-Year Leases

- Provide incentives for operators and landlords to invest in long-term improvements, maintain soil fertility, and encourage conservation practices.
- Examples of improvements:
 - Fertilization (P, K, and Lime)
 - Farm structures and repairs
 - Tile drainage
 - Conservation practices

Financing Improvements within Cropland Leases

- Landlord may pay for the improvement as part of the rental agreement, with the understanding that the rental rate will be higher to compensate for the improvements.
- The cost of improvements may be paid for by the operator. Negotiate a lower rental rate.
- The cost of each improvement may be shared between the operator and landowner.

Financing Improvements within Cropland Leases (continued)

- If one of the parties is paying for improvements, a lease provision describing how the party (operator or owner) gets reimbursed for the undepreciated value of the improvements at the end of the lease term should be included in the lease.
- The undepreciated value is computed by using the initial cost of the improvement and a depreciation rate that reflects the improvement's useful life.

Incorporating Conservation Practices and Improvements into Cropland Leases

Introduction

- Conservation practices and improvements will typically not be made unless it is agreed upon in advance how these costs will be shared and the impact of these practices and improvements on production risk.
- It is also important that the operator is assured that he or she will be compensated for the unexhausted or remaining value of improvements if the lease is terminated.

Cropping Practices

- One of the ways to maintain conservation practices and improvements on leased land is to include a list of cropping practices in a written lease agreement.
 - Conservation practices and improvements should be agreed to in advance.
 - If an operator is incurring additional costs or risk, he or she should be compensated during the lease or for some long-term improvements at the end of the leasing period for this fact.

Cropping Practices (continued)

- Examples:
 - Cover crops
 - Waterways
 - Ground cover
 - Fall tillage and fertilization
 - Crop rotations
 - Farm ponds

Cropping Practices (continued)

- Compensation mechanisms (i.e., rent adjustments) for the items above should be included in the lease.
- Compensation for permanent practices such as maintaining terraces, windbreaks, or diversion ditches; pasture improvement; improving soil health; and buffer zones typically involves using capital budgeting techniques, such as depreciation and remaining value.

Cropping Practices (continued)

- Specifically, with permanent practices it is important to keep track of contributions by the landlord and operator, and annual depreciation of each practice, as well as the method used to recover the remaining value of each practice.

Cover Crop Lease Insertion

- The operator and landowner agree to utilize a cover crop. The operator shall employ best efforts to plant a cover crop by _____ (date) on _____ acres or _____ % of the leased acres. Specifics such as species composition, planting method, termination method, and date will be determined by (owner/operator/jointly), and/or with the input of professionals knowledgeable about local best practices for cover crops.

Cover Crop Lease Insertion (continued)

- The cost to purchase seed, plant, manage, and terminate cover crops is estimated at \$ _____ / acre. The parties may pursue cost-share from USDA, state government, or other programs to offset costs. Expenditures incurred by the operator related to the use of cover crops will be accommodated through:

Cover Crop Lease Insertion (continued)

- _____ Compensate the operator at \$ _____ / acre for the purchase of seed, planting, management, and termination of cover crops. Payment by owner shall be made within 120 days after cover crops are established.
- _____ Reduce the per acre rental rate set forth above by \$ _____ /acre in year(s) _____ of the lease agreement to compensate for the cost of cover crop implementation.
- _____ The operator shall bear all costs.

Cover Crop Lease Insertion (continued)

- Signatures and dates

Importance of Economic Considerations

- Crop leases need to provide a business framework that encourages efficient use of capital, labor, and management, and that encourages the use of new technology, in addition to maintaining soil health.
- In the long-run, net returns should be shared in an equitable manner.
- Rent adjustments need to be made in situations where the operator incurs costs related to conservation practices and improvements.

Communication

- Good communication between operators and landlords is essential.
- Landowners should discuss potential practices with the operator, instead of simply insisting that certain practices be utilized.
- Most operators are interested in renting ground for a long period of time, so they are also interested in long-run productivity and the soil health of each tract of land that they farm.

THANK YOU

Check out the web site for the Center of
Commercial Agriculture

www.purdue.edu/commercialag