

FLEX LEASES

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Purdue Farmland Value & Cash Rent Survey Background

- Survey conducted annually in June since 1974
- Respondents: rural appraisers, ag lenders, farm managers, and farmers
- Information collected:
 - Estimated land values as of December 2023, June 2024 & December 2024 (projection)
 - Top, average, and poor quality land
 - Annual cash rental rate
 - Long-term corn yield (productivity)

Cash Rents

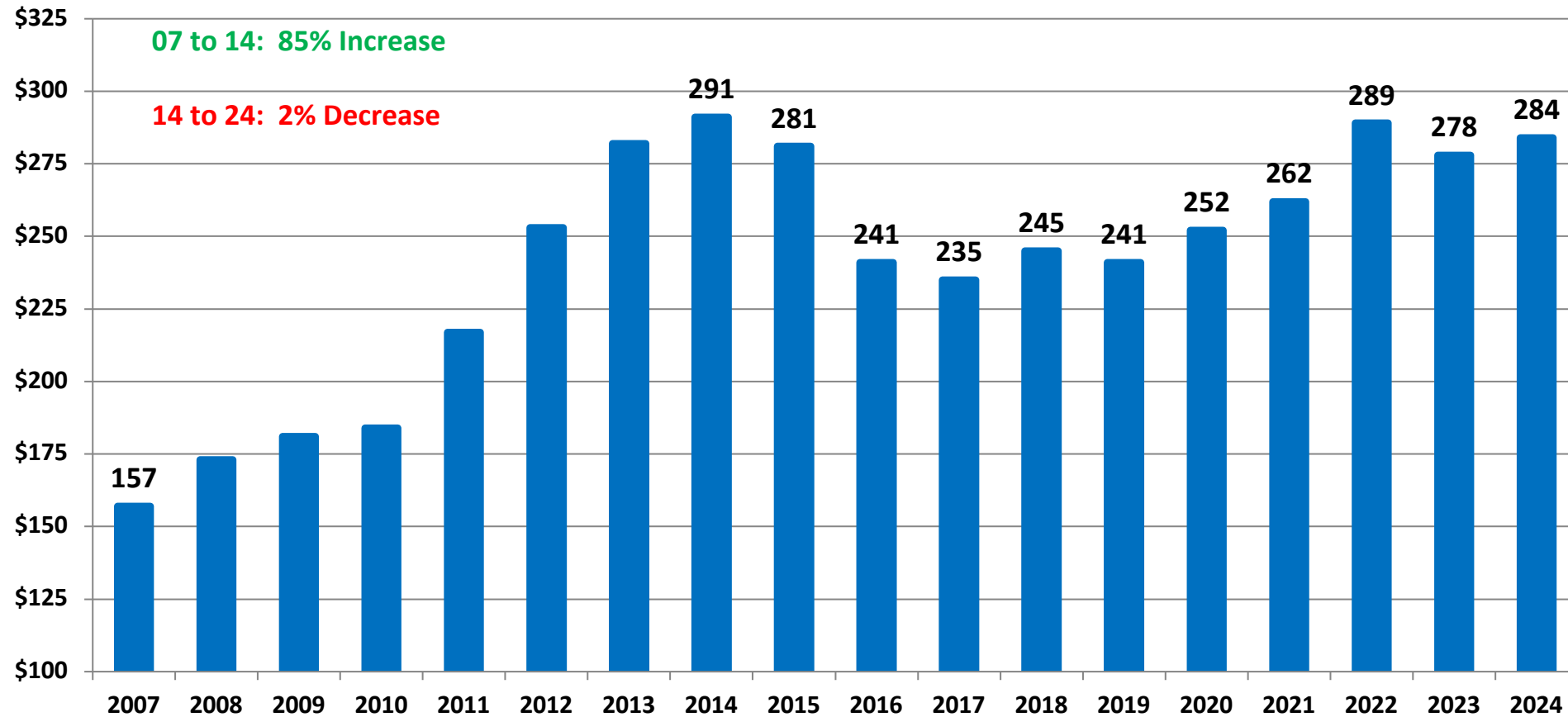
Indiana Cash Rents

2024 Survey Results, State Averages by Land Quality

Land Quality	Yield (Bu/Ac)	2023 Value (\$/A)	2024 Value (\$/A)	Percent Change
Top	226	\$306	\$313	2.3%
Average	196	\$257	\$260	0.9%
Poor	167	\$212	\$204	-3.7%

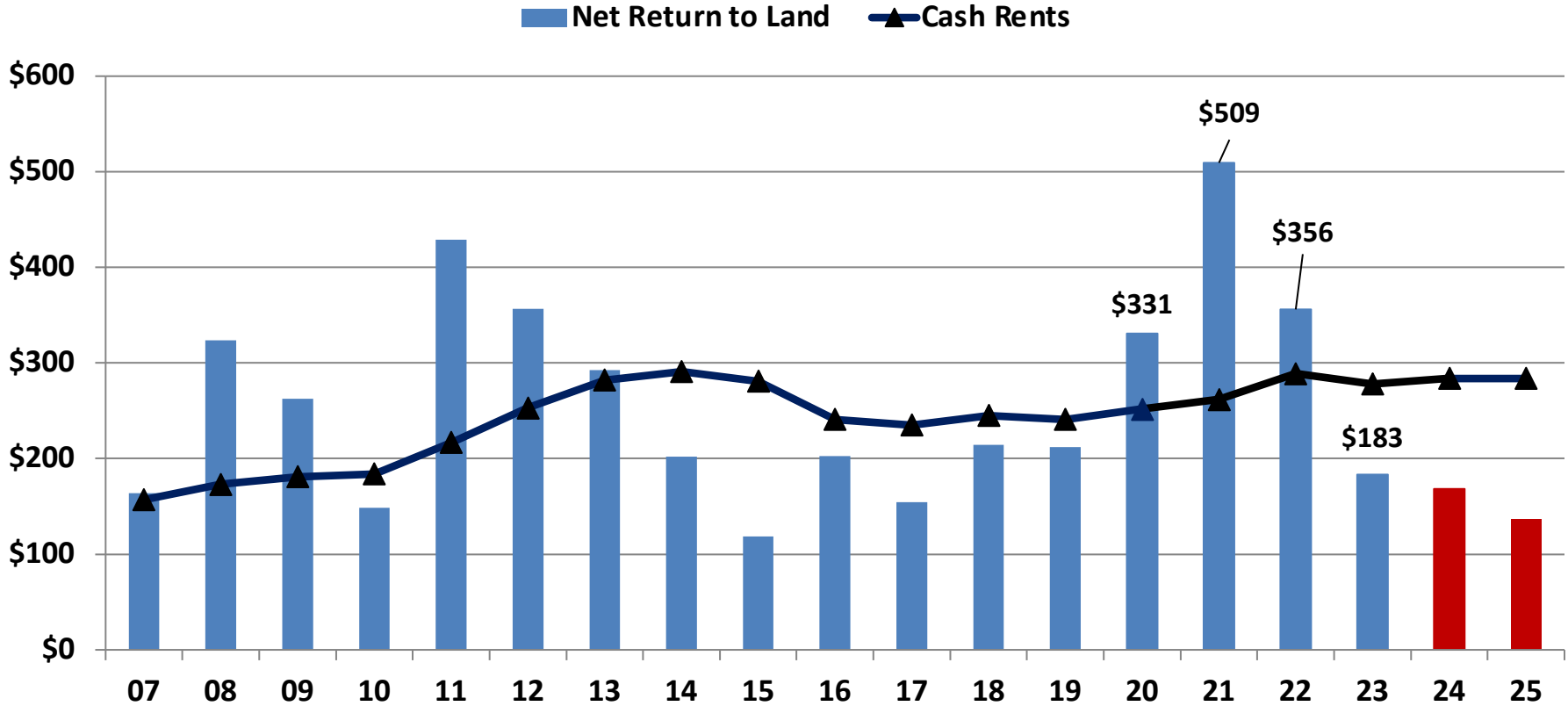
Trend in Cash Rents, West Central Indiana

Cash Rent, West Central Indiana
Average Land Productivity



Relationship Between Cash Rent and Net Return to Land

Cash Rent and Net Return to Land (\$/Acre) West Central Indiana



Flexible Cash Leases

Flexible Cash Rent Leases

- Crop prices, yields, and costs are often uncertain. Therefore, operators and landowners may hesitate to commit to a fixed cash rent.
 - Operators fear a fixed cash rent could pose cash flow problems if crop prices decline or there are poor growing conditions.
 - Landowners believe they should share in the benefits from a sharp rise in crop prices or above trend yields.
 - Rather than implementing a crop share lease, the operator and landowner may turn to a flexible cash rent lease.

Flexible Cash Rent Leases (continued)

- A recent survey analyzed the leasing arrangements used by Illinois farm managers in 2024. Percentage use was as follows:
 - Traditional crop share lease: 20%
 - Crop share with supplemental rent: 5%
 - Crop share with other modifications: 4%
 - Fixed cash rent: 30%
 - Variable cash rent: 34%
 - Custom farming: 7%
- Source: 2024 Illinois Land Values and Lease Trends

Advantages of Flexible Cash Rent Leases

- Enables landowner to share in the additional income that results from unexpected increases in crop prices and/or crop yields.
- For the operator, risk is reduced. Cash rent expense is lower if crop prices and/or yields are less than normal.
- Calculating flexible cash rent requires more communication from both parties.

Disadvantages of Flexible Cash Rent Leases

- For the landowner, flexible cash rent increases risk.
- Windfall profits that may be realized by the operator from unexpected increases in crops prices and/or yields are reduced.
- If cash rent is flexed according to yield, the landowner becomes more concerned with the level of crop yields as well as the accuracy of reported yields. Yields must be verifiable and segregated for each land unit in the lease.

Disadvantages of Flexible Cash Rent Leases (continued)

- If cash rent is flexed according to yield, the operator may give up part of the benefits from higher yields resulting from managerial input, thus possibly reducing incentives to maximize profits.
- Calculating flexible cash rent requires more management from both parties. There must be agreement on how to verify the factors that are used to set the rent each year.

Summary of Flex Lease Types

- Flex leases can be designed to:
 - Flex on crop yield
 - Flex on crop price
 - Flex on crop price and crop yield
 - Flex on crop price, crop yield, and cost

Comparison of Alternative Crop Leases

Case Farm Example

- Estimated landowner net returns for 2007 to 2024
 - Crop-Share Lease
 - Fixed Cash Lease
 - Flexible Cash Lease
- Case farm planted 50% corn and 50% soybeans

Case Farm Example

- Crop Share Lease
 - Landowner pays 50% of seed, fertilizer, chemical, and crop insurance costs; and 100% of land ownership costs
 - Landowner receives 50% of all revenue (crop revenue, government payments, and crop insurance indemnity payments)
- Fixed Cash Lease
 - Landowner pays 100% of land ownership costs
 - Landowner receives a fixed cash rent (e.g., \$250 per acre)

Case Farm Example

- Flexible Cash Lease
 - Base rent is set at 90% of fixed cash lease
 - Landowner receives a bonus, 50% of gross revenue above non-land cost, plus base rent

Case Farm Example

■ Flexible Cash Lease

• 2022:

- Base rent = \$260 (fixed cash rent = \$289)
- Non-land cost + base rent = \$904
- Revenue = \$1,000
- Bonus = $(\$1,000 - \$904) \times 0.50 = \$48$ per acre

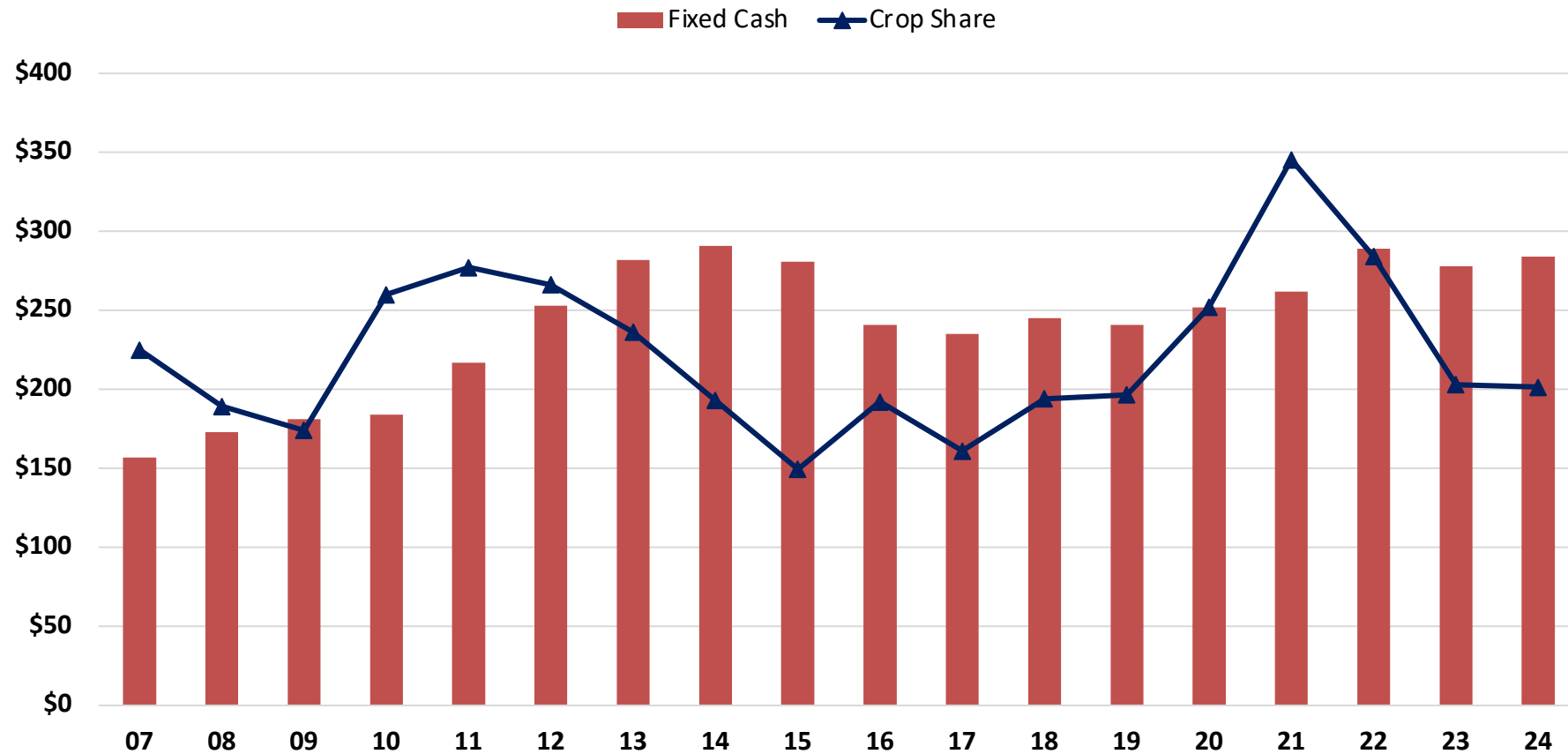
Case Farm Example

■ Flexible Cash Lease

- 2024:
 - Base rent = \$256 (fixed cash rent = \$284)
 - Non-land cost + base rent = \$889
 - Revenue = \$802
 - Bonus = \$0
 - Revenue is lower than non-land cost + base rent

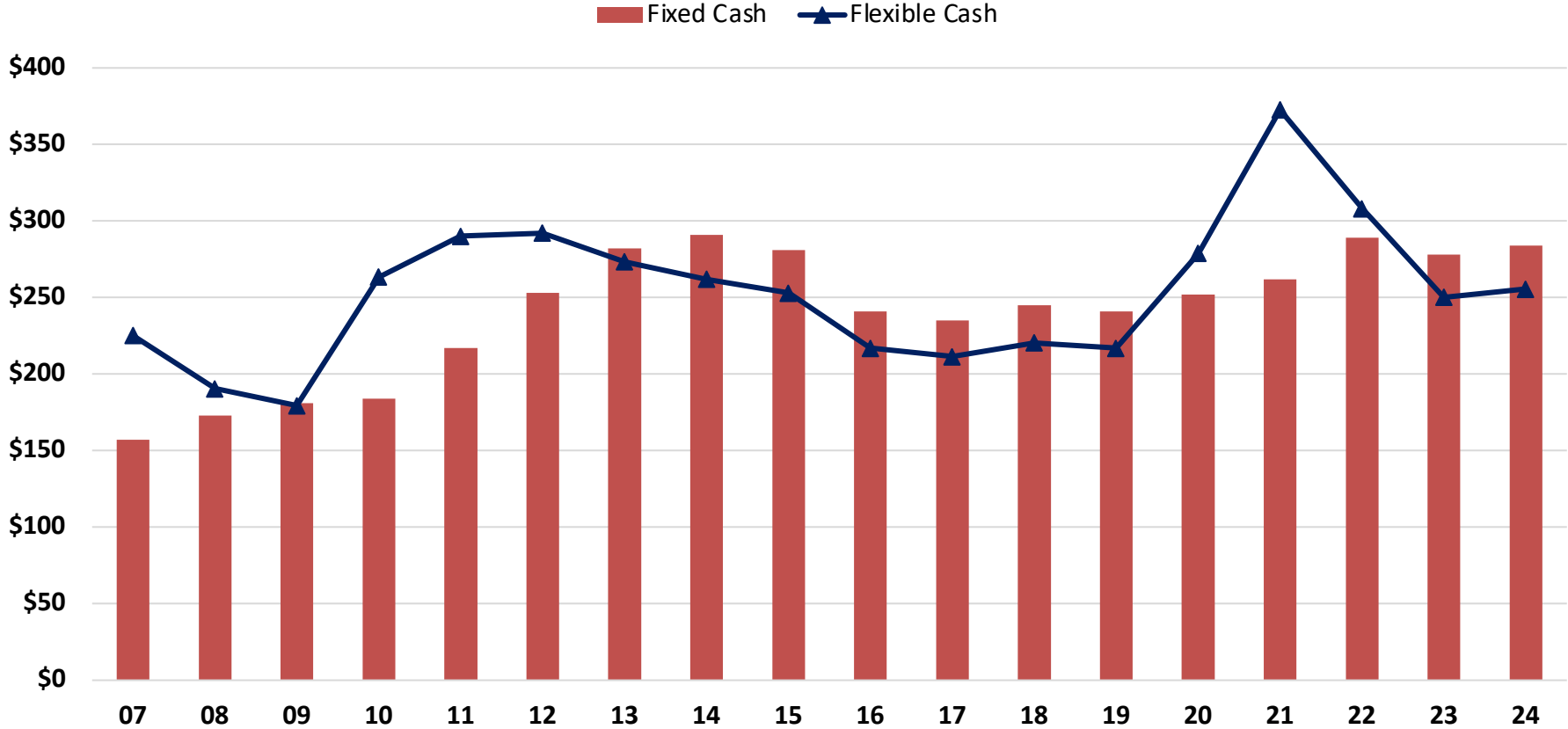
Fixed Cash Lease versus Crop Share Lease

Comparison of Net Returns for Crop Share Lease and Fixed Cash Rent Lease
(Per Acre Net Returns for Landowners)



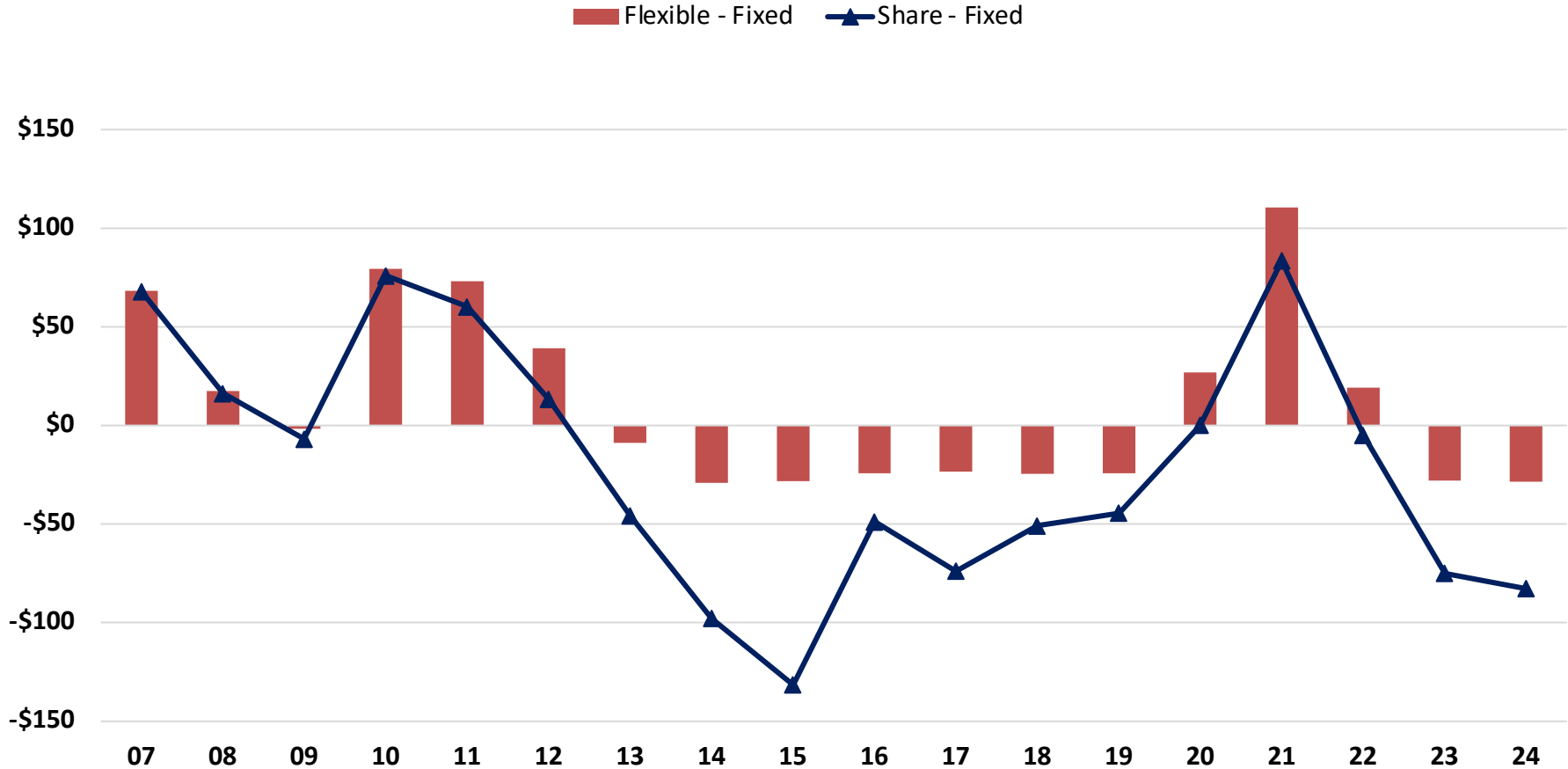
Fixed Cash Lease versus Flexible Cash Lease

Comparison of Net Returns for Flexible Cash Lease and Fixed Cash Rent Lease
(Per Acre Net Returns for Landowner)



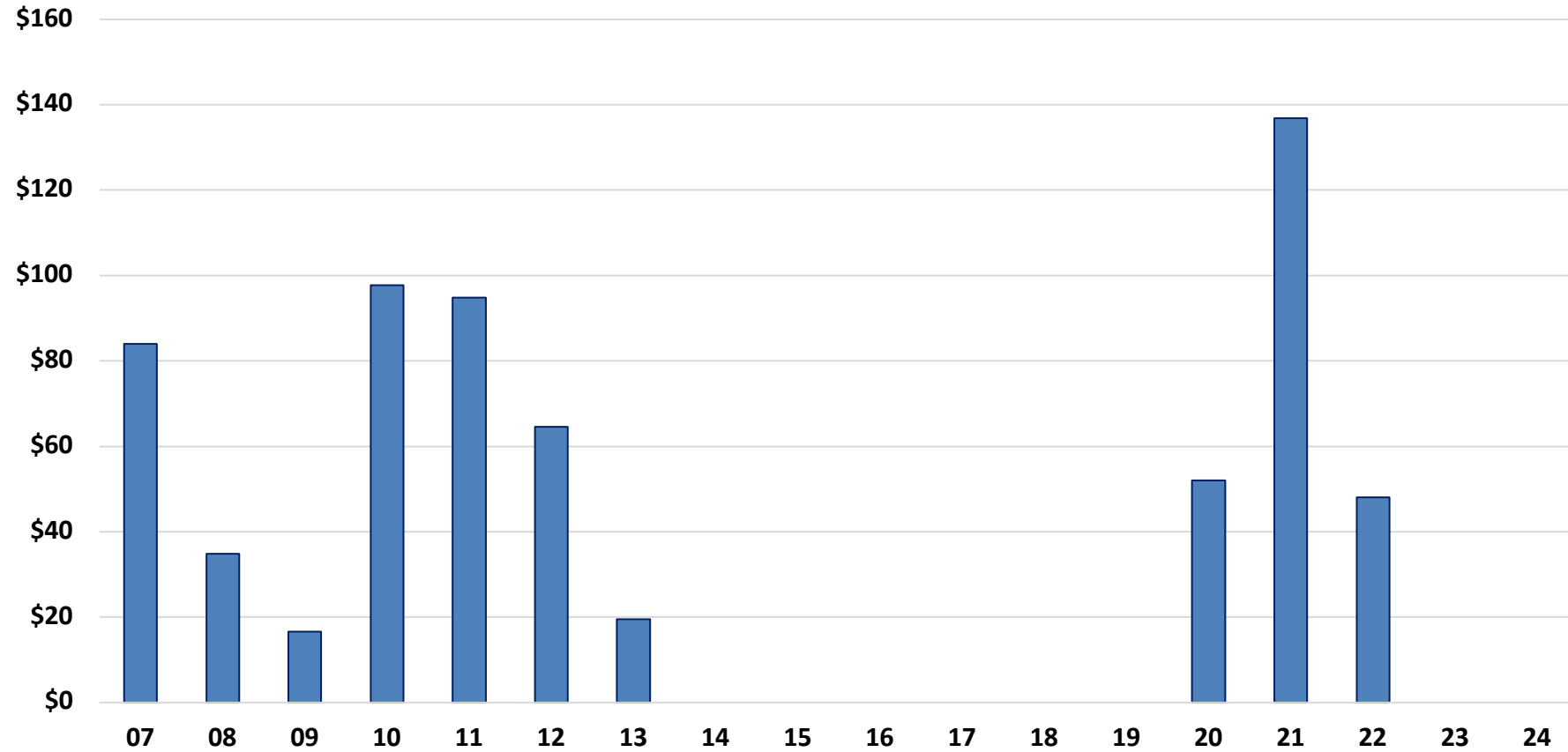
Fixed Cash Lease versus Crop Share and Flexible Cash Leases

Differences Between Fixed Cash Rent Lease and Other Lease Arrangements
(Per Acre Net Returns for Landowner)



Bonus Payments for Flexible Cash Lease

Bonus Payments (Per Acre) for Flex Cash Lease Arrangement



Comparison of Flexible Cash Rent Leases

Flexible Cash Lease Comparisons

- A recent study compares fixed cash rent and crop share leases to the following flexible cash rent leases:
 - Fixed rent per bushel (bushel rent)
 - Actual crop price times fixed number of bushels (% of crop yields)
 - Percent of gross revenue (% of gross revenue)
 - Base rent plus fixed percentage of gross revenue above base costs; costs are defined as all costs, except fixed cash rent, plus base cash rent (base rent plus bonus)

Flexible Cash Lease Comparisons (continued)

- Optimal parameters for each flexible cash lease were computed to ensure that a tenant would be indifferent between all of the leases. Analysis accounted for both net return and risk, and used data from 2007 to 2024.

Optimal Lease Parameters

Lease Type	Parameters
Fixed Cash	Market Cash Rent
Crop Share	47.5%
Bushel Rent	1.40 for corn and 4.52 for soybeans
% of Crop Yields	34.4%
% of Gross Revenue	33.1%
Base Rent with Bonus	90.0% of base rent plus 41.7% of gross revenue above base cost

Risk Comparisons (Risk Measured using Standard Deviation)

Lease Type	Landowner	Tenant (Operator)	Ratio
Fixed Cash	42.8	115.0	0.37
Crop Share	47.8	53.1	0.90
Bushel Rent	26.0	107.8	0.24
% of Crop Yields	51.1	72.4	0.71
% of Gross Revenue	40.6	76.6	0.53
Base Rent with Bonus	42.4	79.3	0.54
Green: low risk; Red: high risk			

Conclusions

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- From an operator's perspective, flexible cash rent is less risky than fixed cash rent and more risky than crop share leases.
- From a landowner's perspective, flexible cash rental arrangements result in higher net returns in "good" net return years.
- It is extremely important that each party (landowner and operator) understands how net returns are computed under a flexible cash lease.

THANK YOU

Purdue Citations:

<https://purdue.edu/commercialag>

“Farmland Value & Cash Rental Rates: 2024 Survey”

“Comparing Net Returns for Alternative Leasing Arrangements”