

Trends in Farm Income and Land Values



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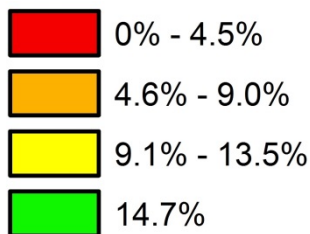
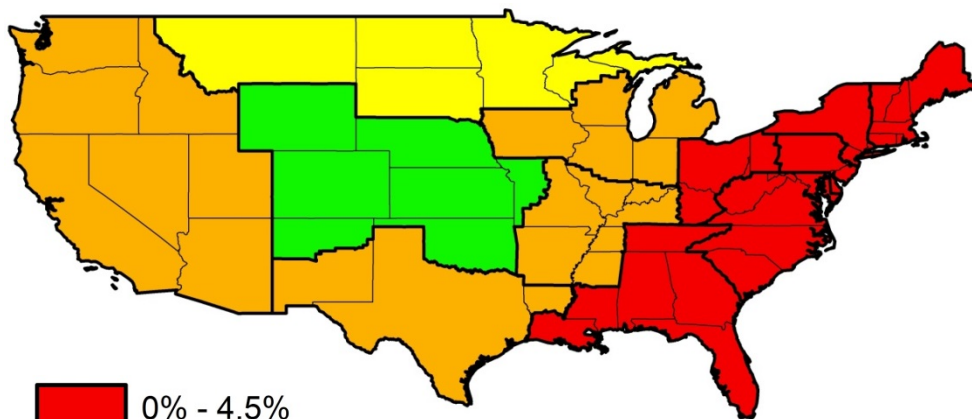
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Of the 12 Fed Districts, the 10th District is the most concentrated in agriculture by some measures.

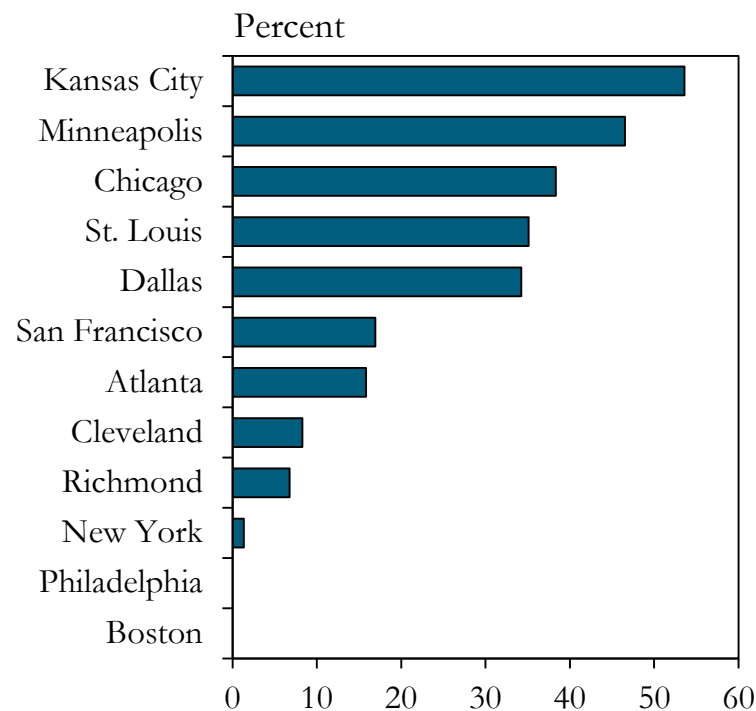
Average Farm Income as a Share of Total Personal Income

Average Across Counties by Fed District



Source: BEA.

Proportion of “Farm Dependent” Counties



Source: BEA, USDA, and staff calculations

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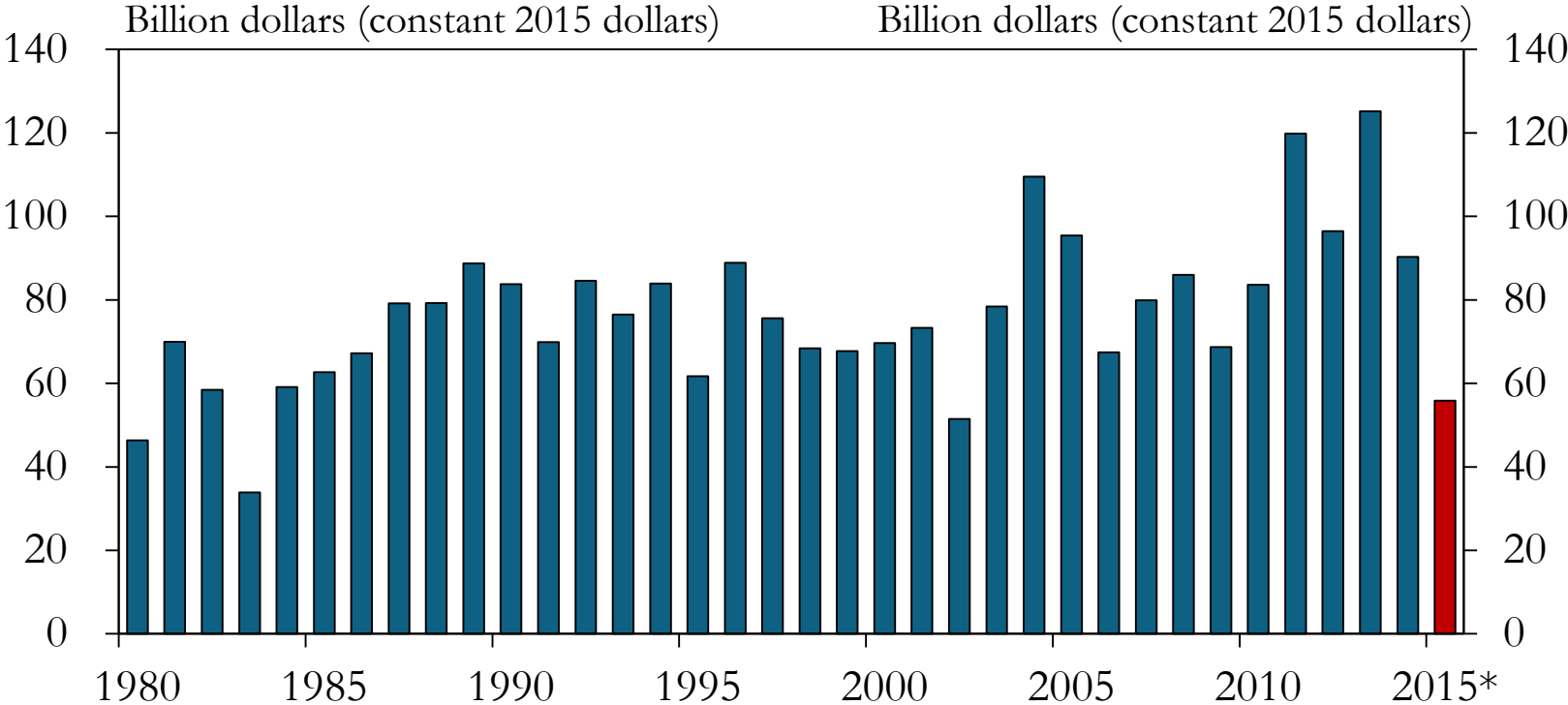
Monitoring trends in agriculture remains a key area of focus for the Omaha Branch.

- Omaha Branch Agricultural Efforts
 - Research & analysis, outreach, bank supervision
- Tenth District Survey of Agricultural Credit Conditions
 - District farm income, farmland values, loan repayment rates, etc.
- Agricultural Finance Databook
 - National survey of agricultural lending at commercial banks
- Annual Agricultural Symposium
 - 2016 – “Agriculture’s Water Economy”
 - 2015 – “Responding to Future Food Demands”
 - 2014 – “Structural Transitions in Global Agriculture”



Farm income dropped significantly in 2015.

U.S. Real Net Farm Income

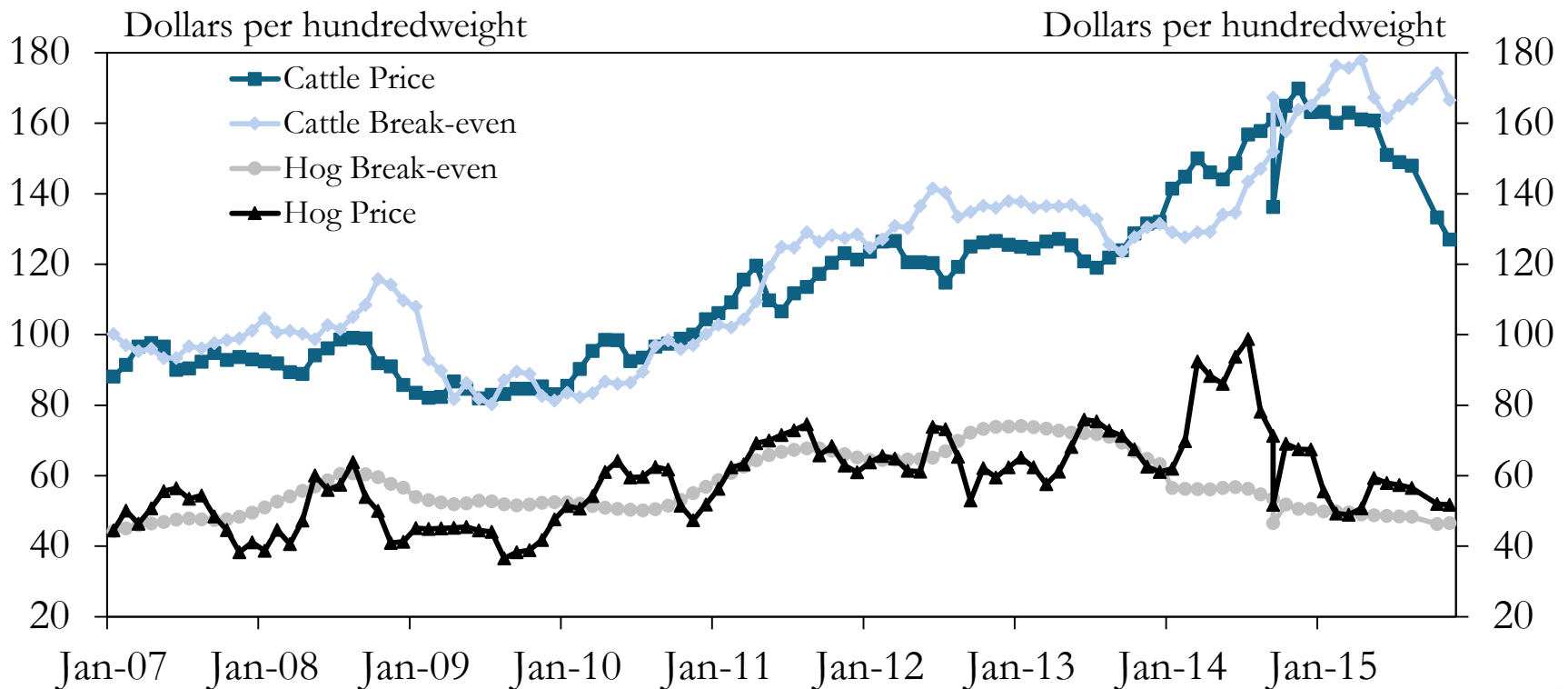


Source: USDA.
* Forecast for 2015.



Sharp losses in the cattle sector have added to the pessimism.

Livestock Breakevens and Price



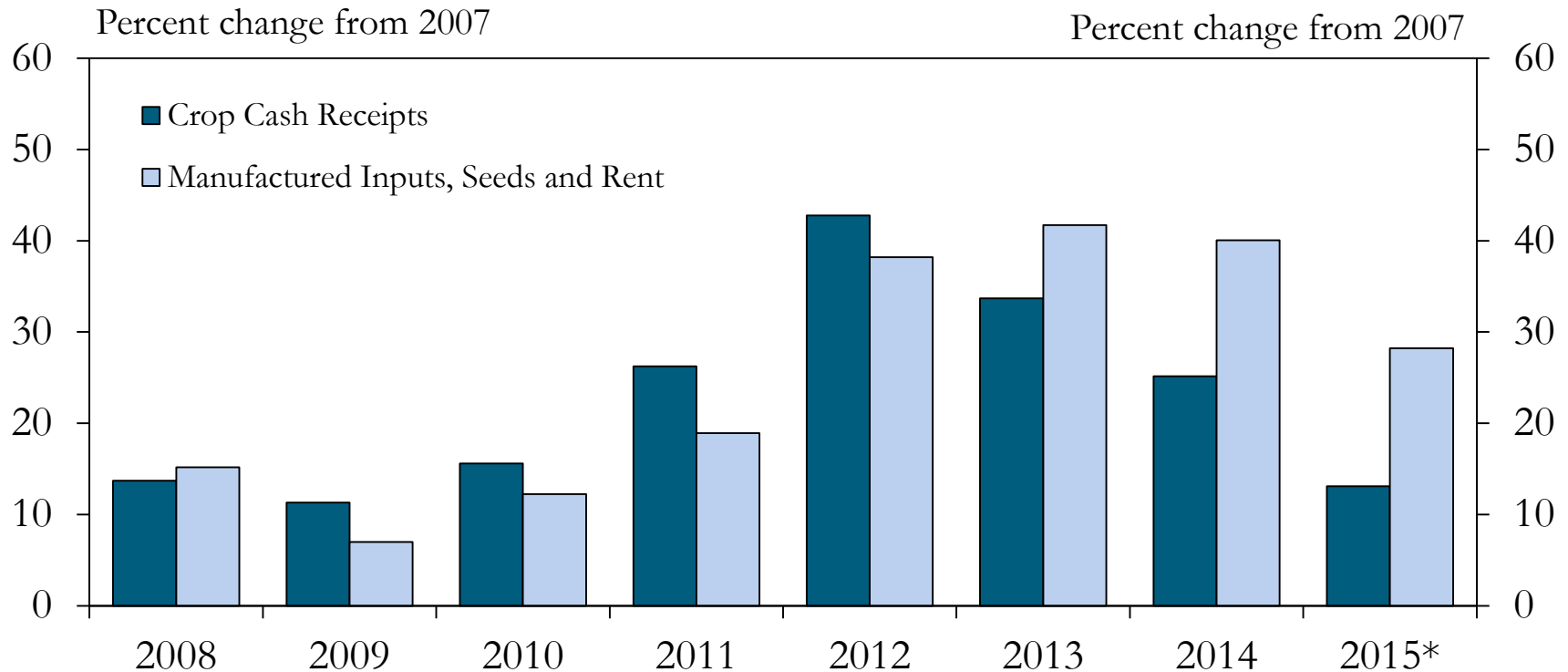
Sources: USDA and Iowa State University.

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Weaker profits in the crop sector, though, have been a primary driver of reduced farm income.

U.S. Crop Cash Receipts and Input Costs



Source: USDA.

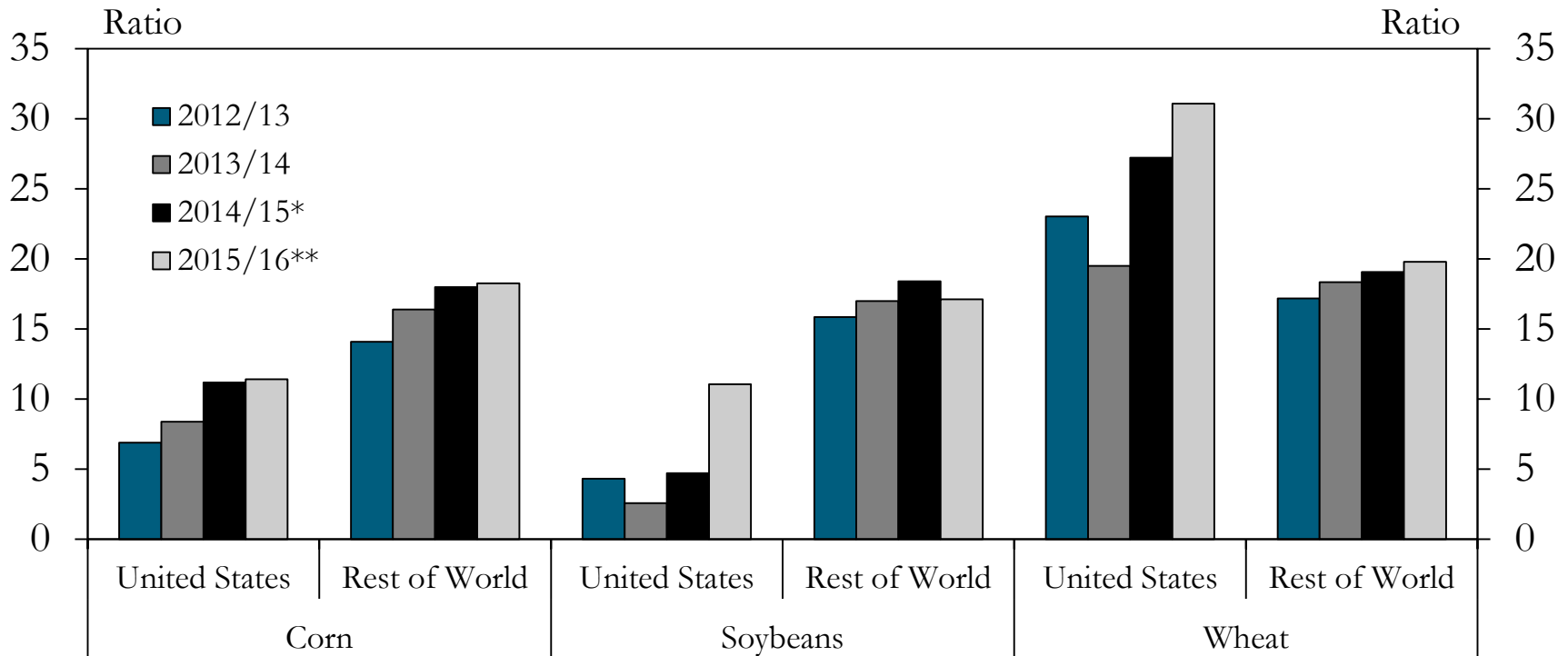
*Forecast for 2015

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Part of the reason for declining crop prices is due to higher levels of global supplies.

Stocks-to-Use Ratios



*Estimate for 2014/2015 crop year

**Forecast for 2015/2016 crop year

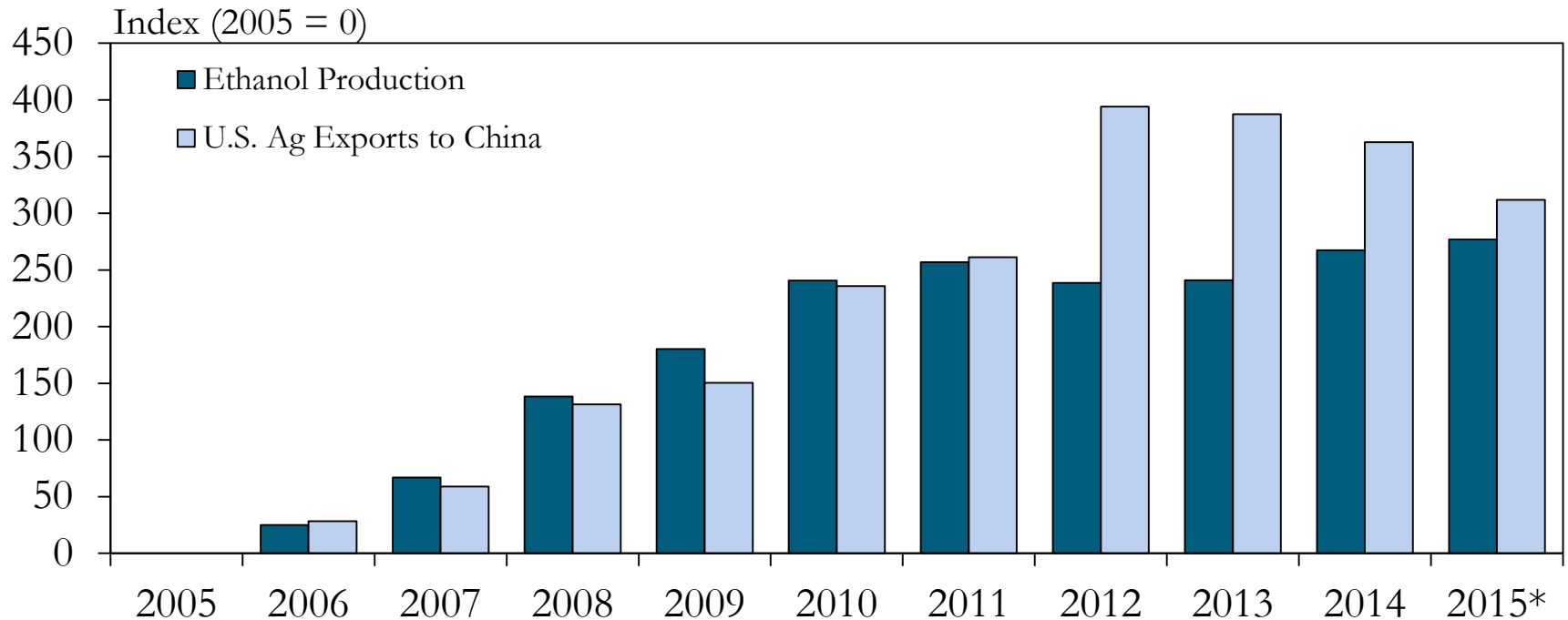
Source: USDA FAS PSD Database

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Key demand factors have also softened considerably.

U.S. Corn Prices and Key Demand Factors

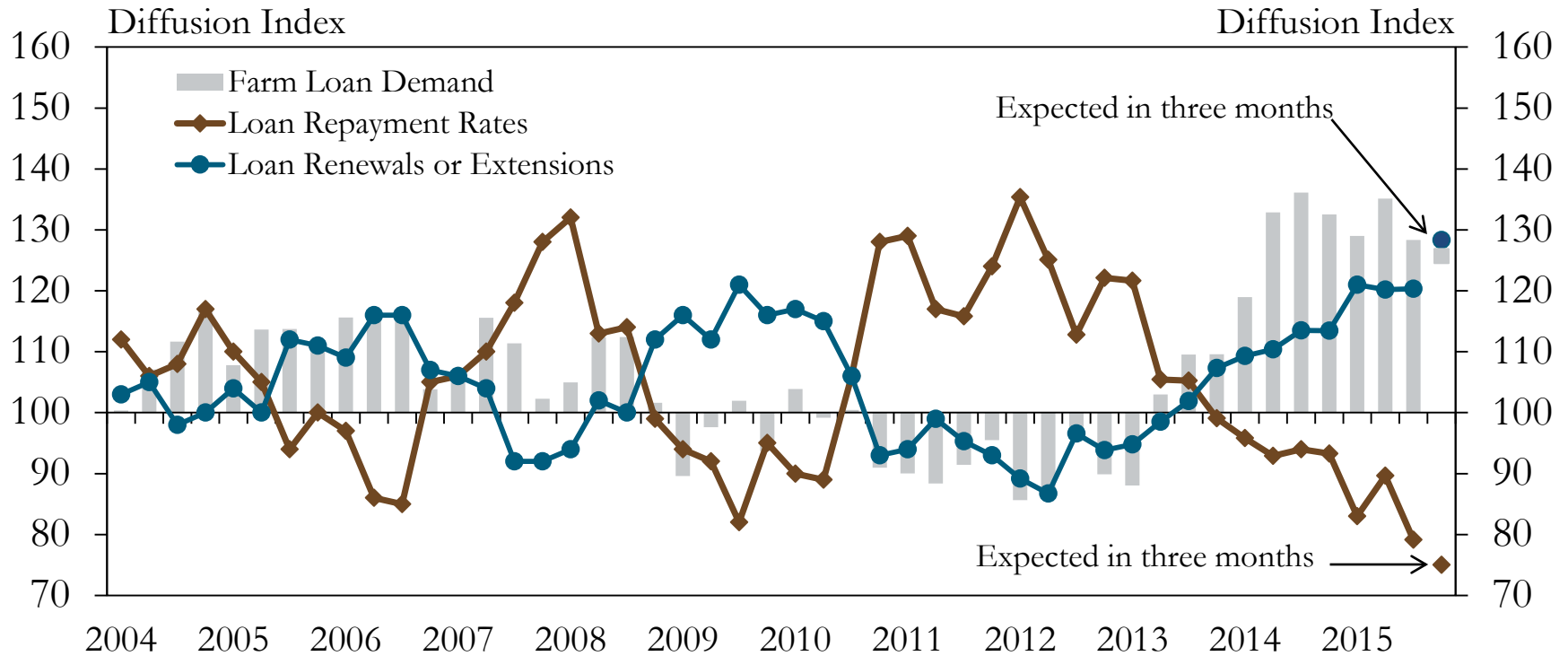


* 2015 ethanol production calculated based on data through November 20th. Ag exports to China calculated from data through November 2015.
Sources: USDA, Renewable Fuels Association, and EIA.



Credit conditions have gradually deteriorated.

Tenth District Credit Conditions 2015, Third Quarter



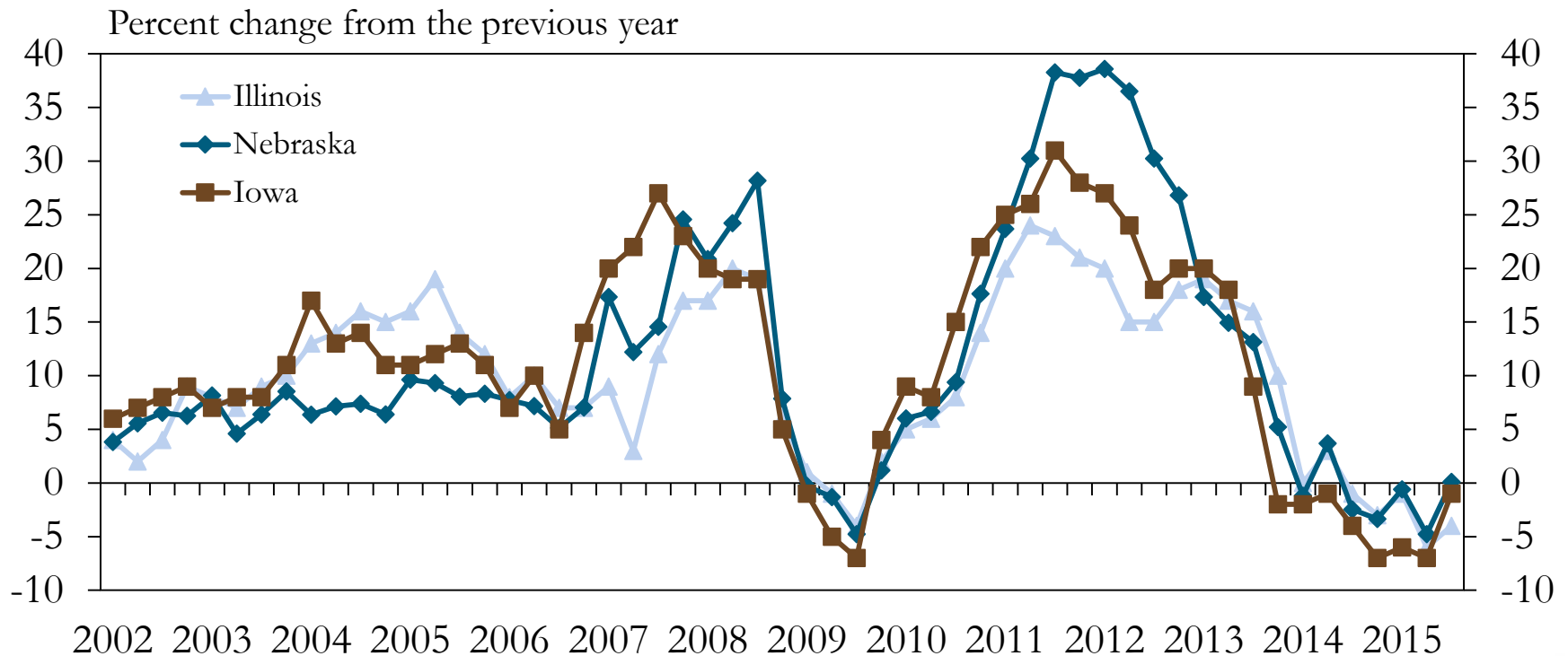
Source: Federal Reserve Bank of Kansas City, Survey of Ag Credit Conditions

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Farmland values, however, have remained relatively steady.

Changes in High Quality Farmland Values



Source: Federal Reserve Banks of Kansas City and Chicago.

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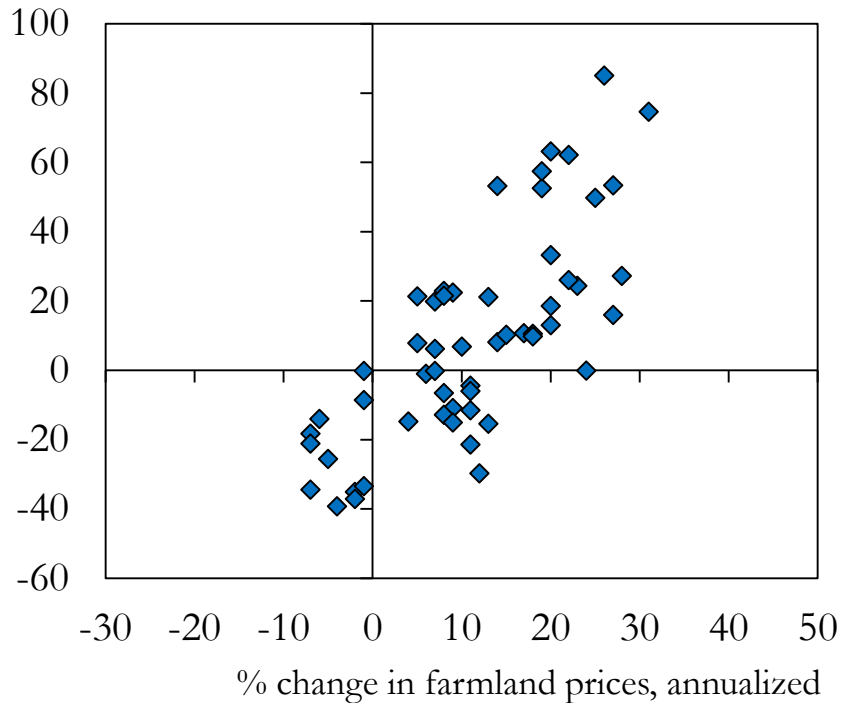


Farmland values have, in many ways, defied expectations associated with lower crop prices.

Corn and Farmland Values

Quarterly Changes in Iowa since 2002

% change in corn prices, annualized

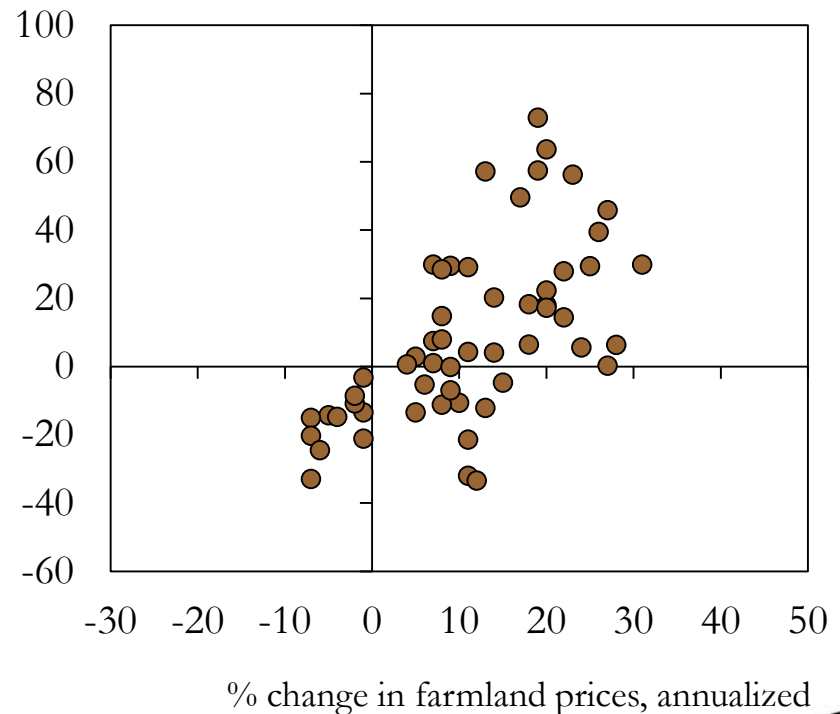


Source: Federal Reserve Bank of Chicago, Haver Analytics

Soybean and Farmland Values

Quarterly Changes in Iowa since 2002

% change in soybean prices, annualized



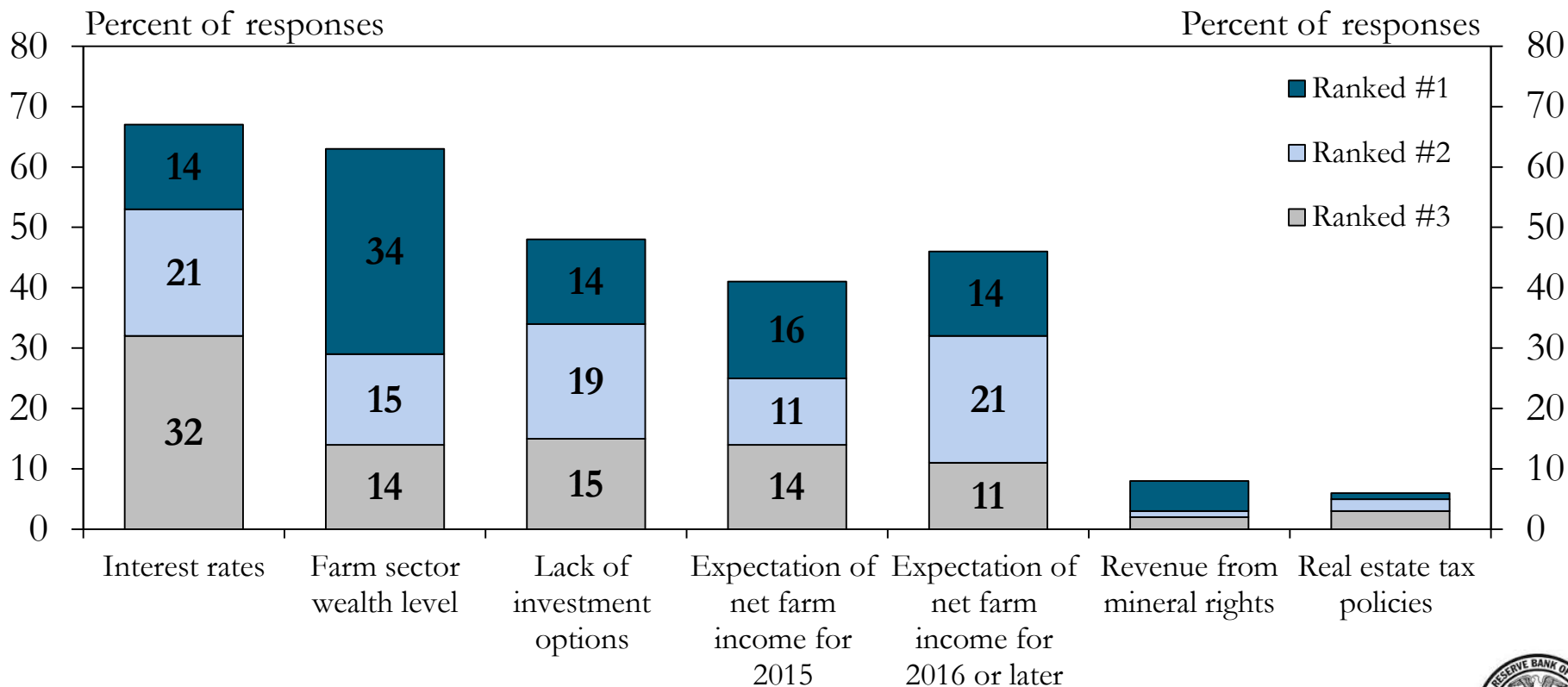
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Bankers have noted several key factors that have shaped the path of farmland values.

Factors Contributing to Farmland Values

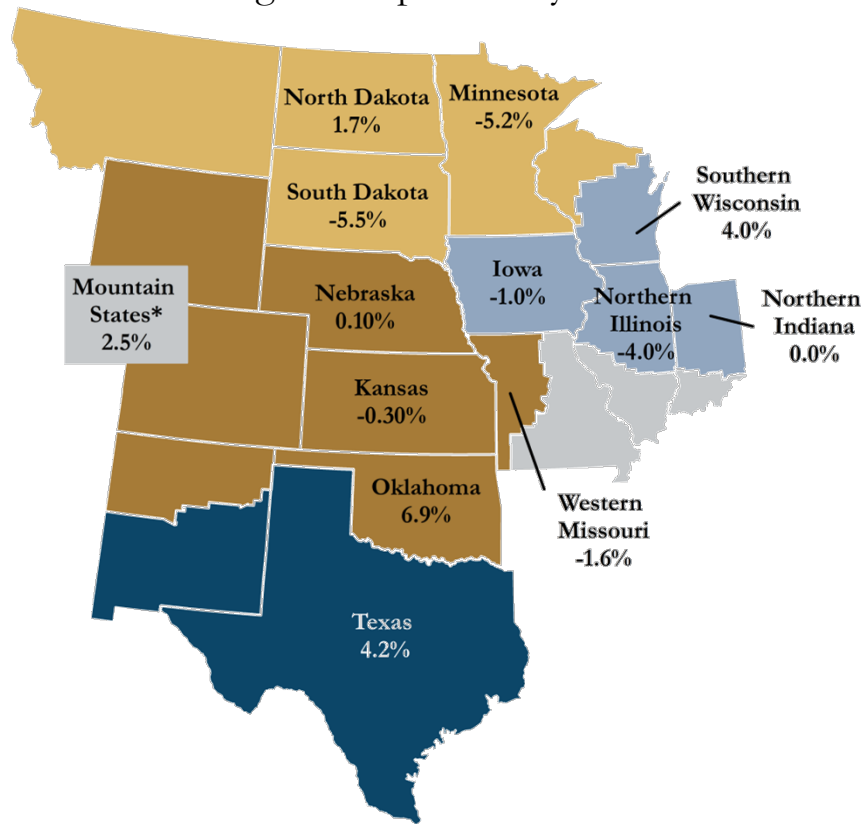
2015, Second Quarter



Despite only modest reductions in average farmland values, the variation has increased dramatically.

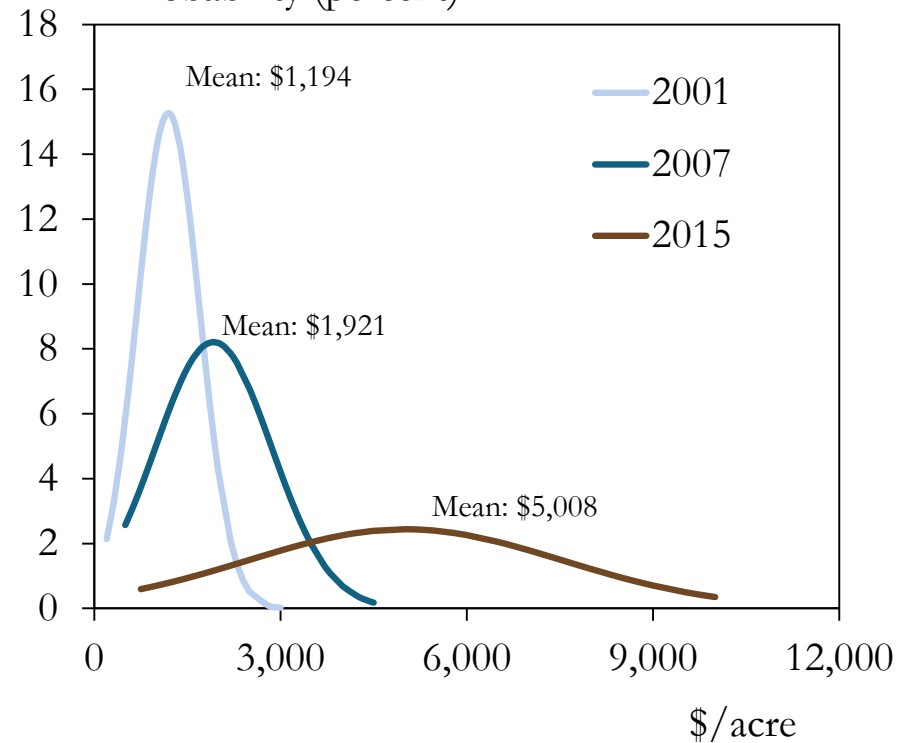
Value of Non-irrigated Cropland, Third Quarter 2015

Percent change from previous year



Distribution of Tenth District Irrigated Farmland Values

Probability (percent)

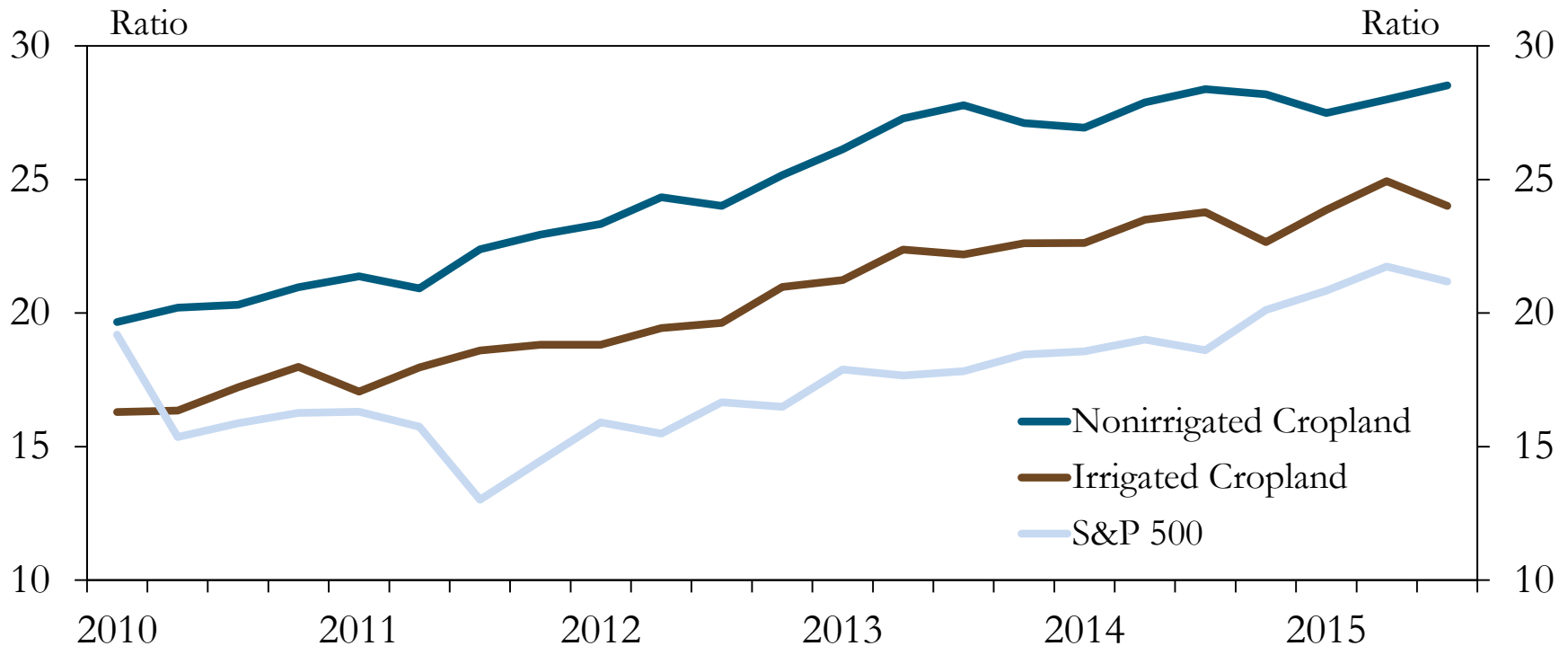


Which developments will be important to monitor in 2016 and beyond?



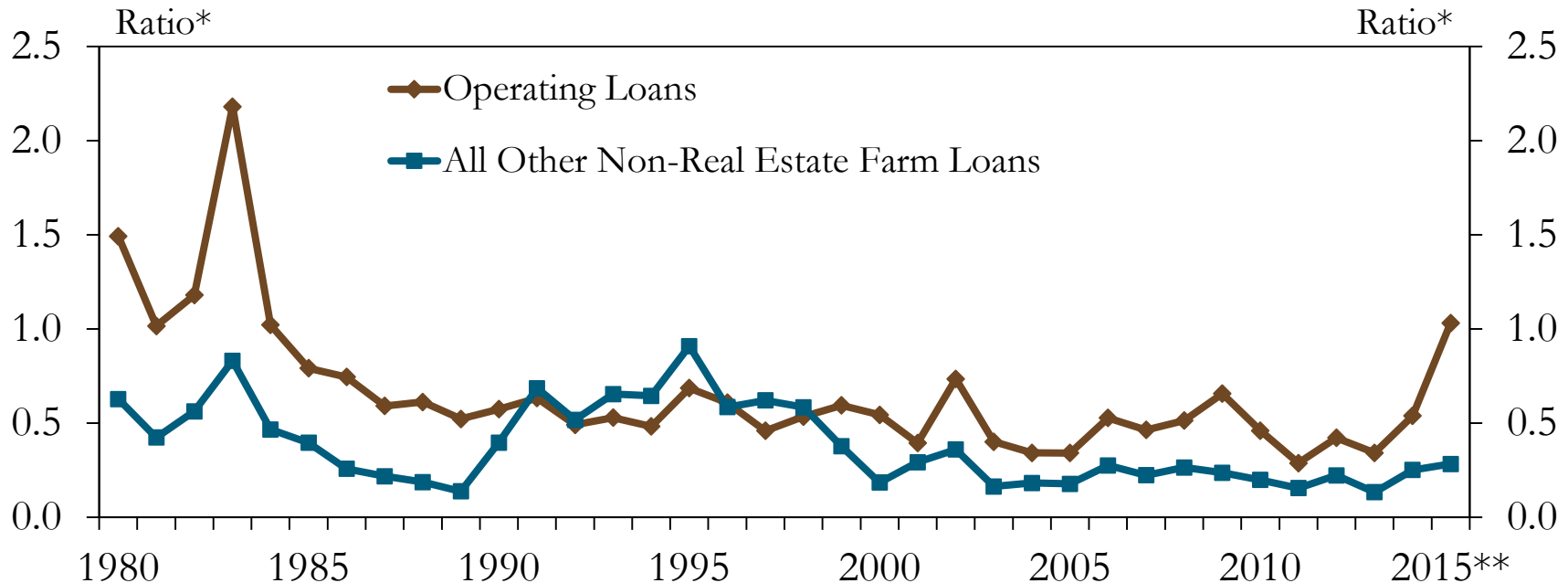
Land prices have increased faster than rents, but both have been slow to adjust. Pressure building?

Ratio of Land Values-to-Cash Rent in the Tenth District



Operating debt has risen dramatically. What will liquidity look like in 6 months?

Ratio of Commercial Farm Loan Volume to Farm Income



*Ratio equals four-quarter average loan volume (billion dollars) from Ag Finance Databook divided by nominal net farm income (billion dollars) from USDA Farm Income and Wealth Statistics

**USDA nominal net farm income forecasts for 2014 and 2015; loan volumes forecast for the last three quarters of 2015

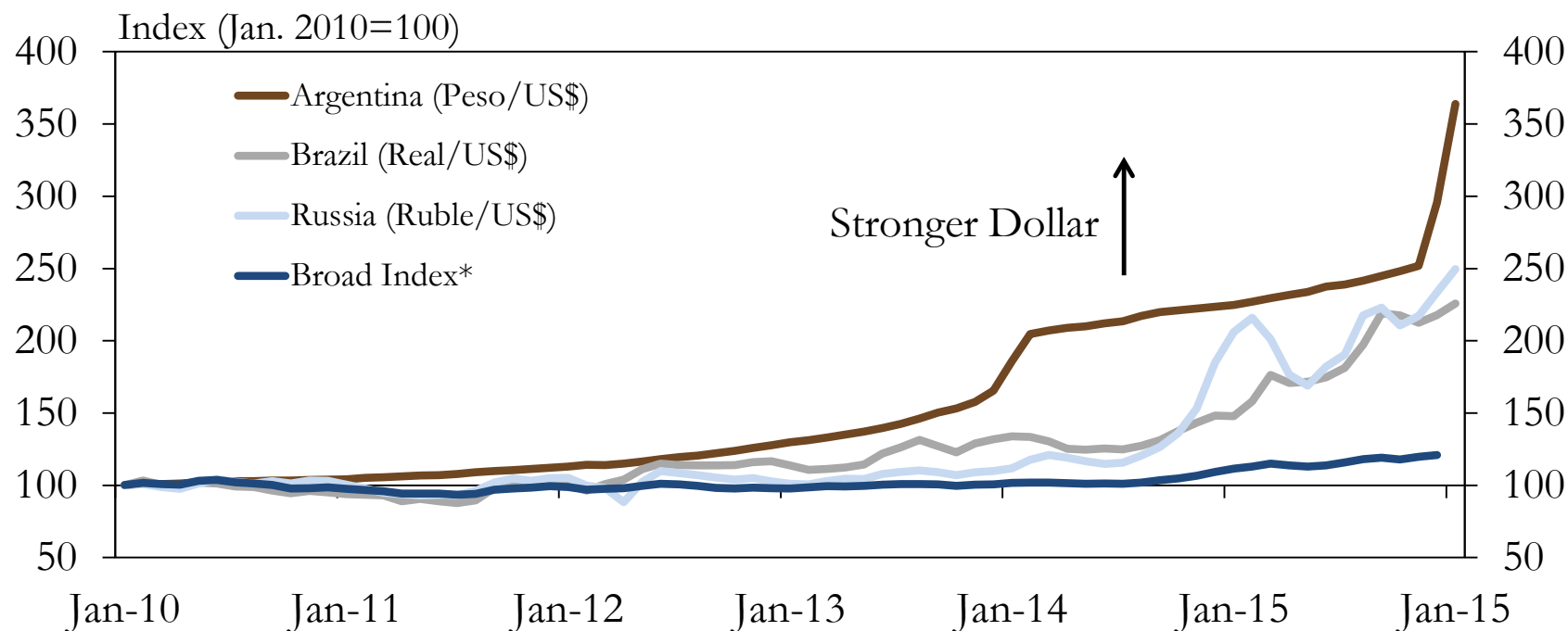
Sources: Agricultural Finance Databook Table A.3 and USDA

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Global crop inventories have risen, as has the value of the U.S. dollar. What happens to global market share?

Currency Exchange Rates

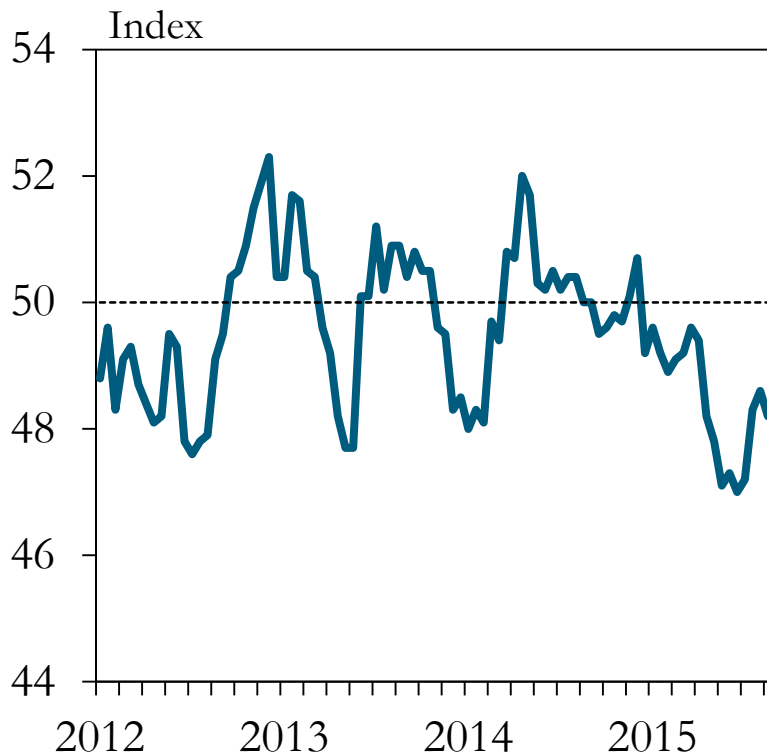


*Nominal broad trade-weighted exchange value of the U.S. dollar
Sources: FRB, IMF and Haver Analytics.

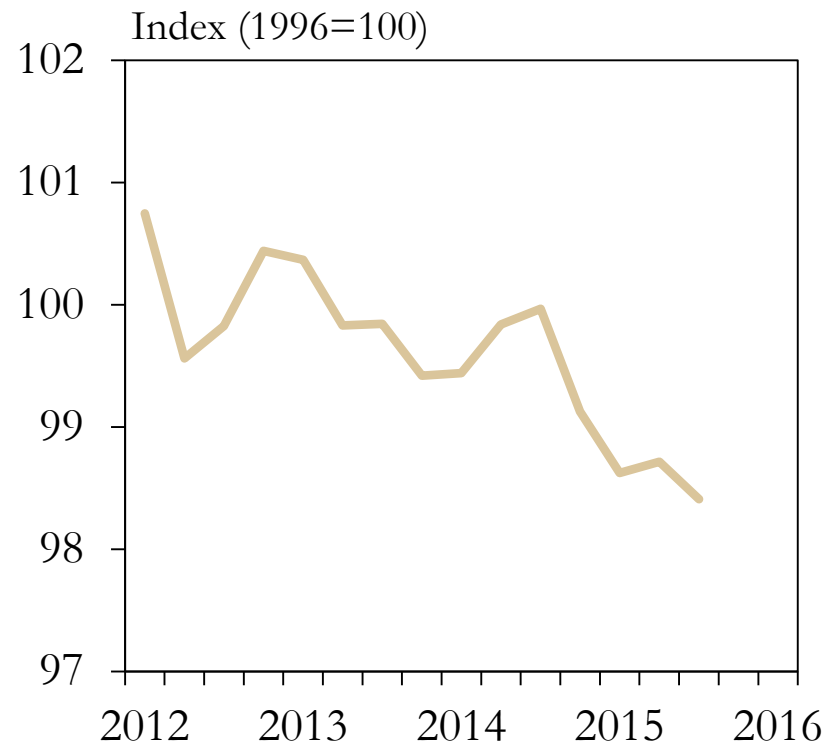


China's economy has shown some cracks. How strong will Chinese export demand be?

China Purchasing Managers' Index (PMI)



China Leading Economic Index

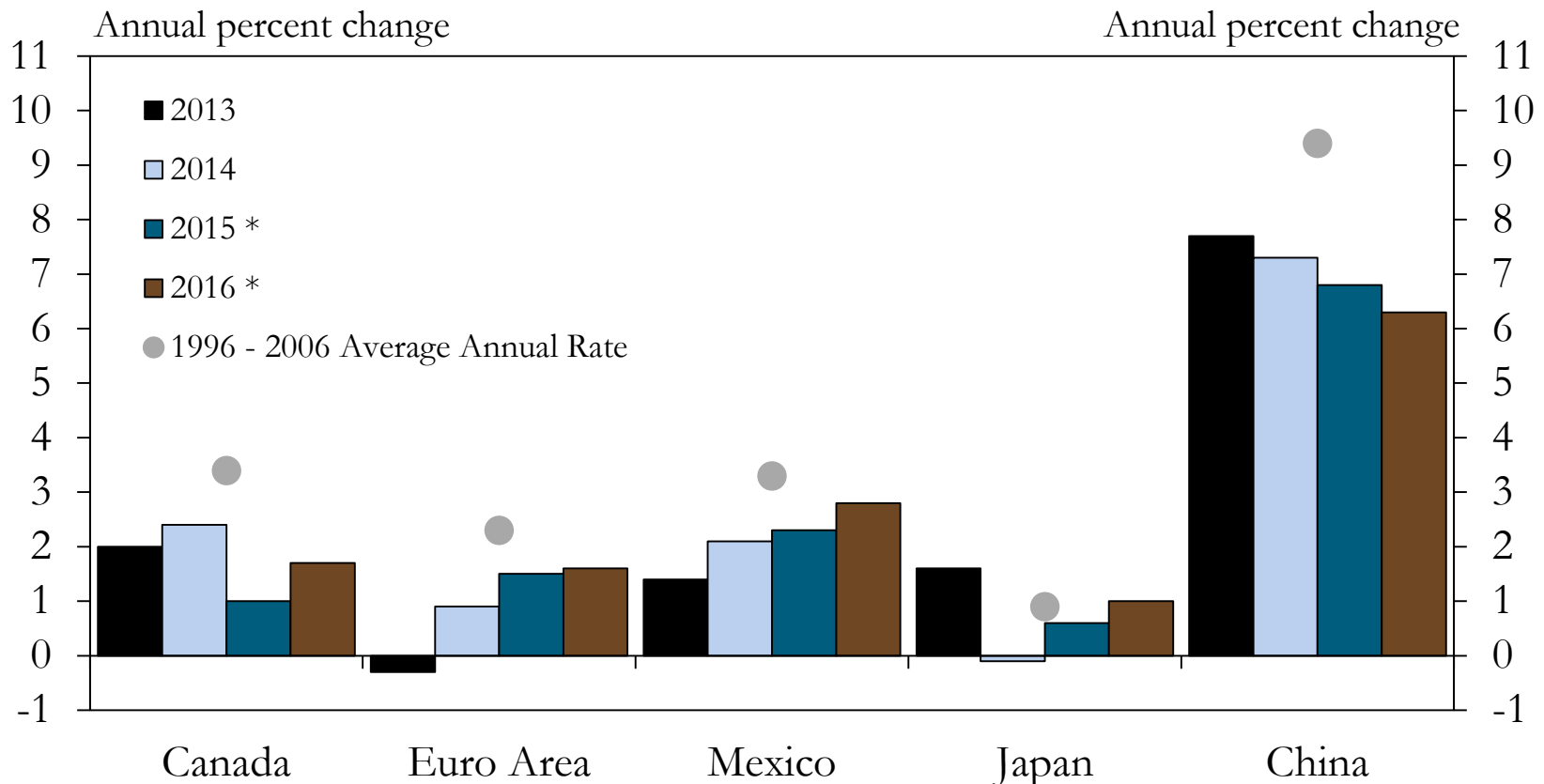


Sources: China National Bureau of Statistics, Haver Analytics and Caixin.



But economic sluggishness has been global.
Will global growth support commodity demand?

Global GDP Growth



* Forecast

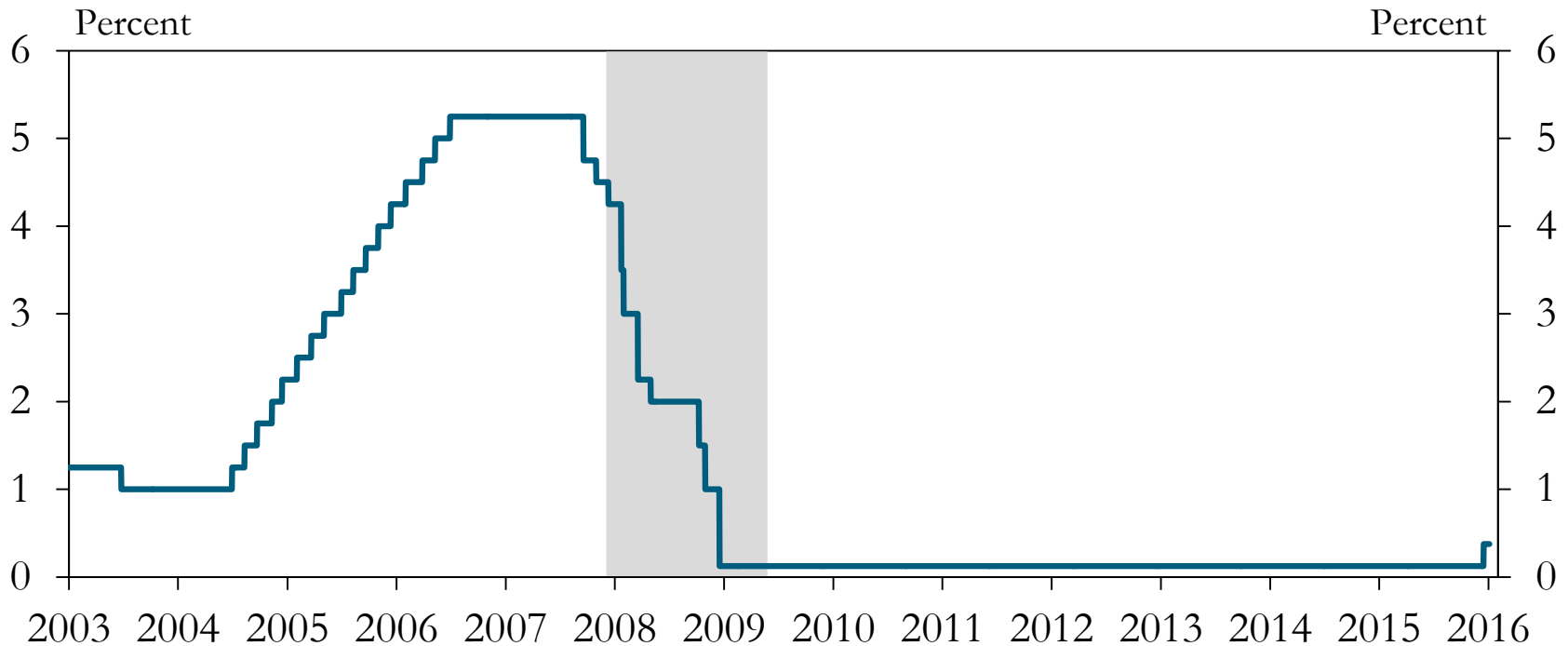
Source: IMF October 2015 Update

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The Fed raised short-term rates, albeit modestly.
How will a rising rate environment shape U.S. ag?

Federal Funds Target Rate



Sources: Federal Reserve Board and Haver Analytics



Concluding Points on the Agricultural Economy

- U.S. agriculture, and farm-dependent rural areas:
 - Near-term adjustments and intensifying financial stress.
 - Long-term optimism, just not like 2010 – 2013.
- Supply and demand risks.
 - Supply: competition in South America.
 - Demand: weakening Chinese economy.
- A 1980s-style bust remains unlikely. However...
 - Cash flow is becoming a more significant concern, with potential pressure on land values.
 - Farm consolidation could intensify as producers face mounting financial stress.



Questions?

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