

Brian C. Briggeman

Federal Reserve Bank of Kansas City – Omaha Branch

www.kansascityfed.org/omaha

October 15th, 2010

Farm Income and Finance Outlook



The views expressed are those of the author and do not necessarily reflect the opinions of the Federal Reserve Bank of Kansas City or the Federal Reserve System.

Today's Roadmap

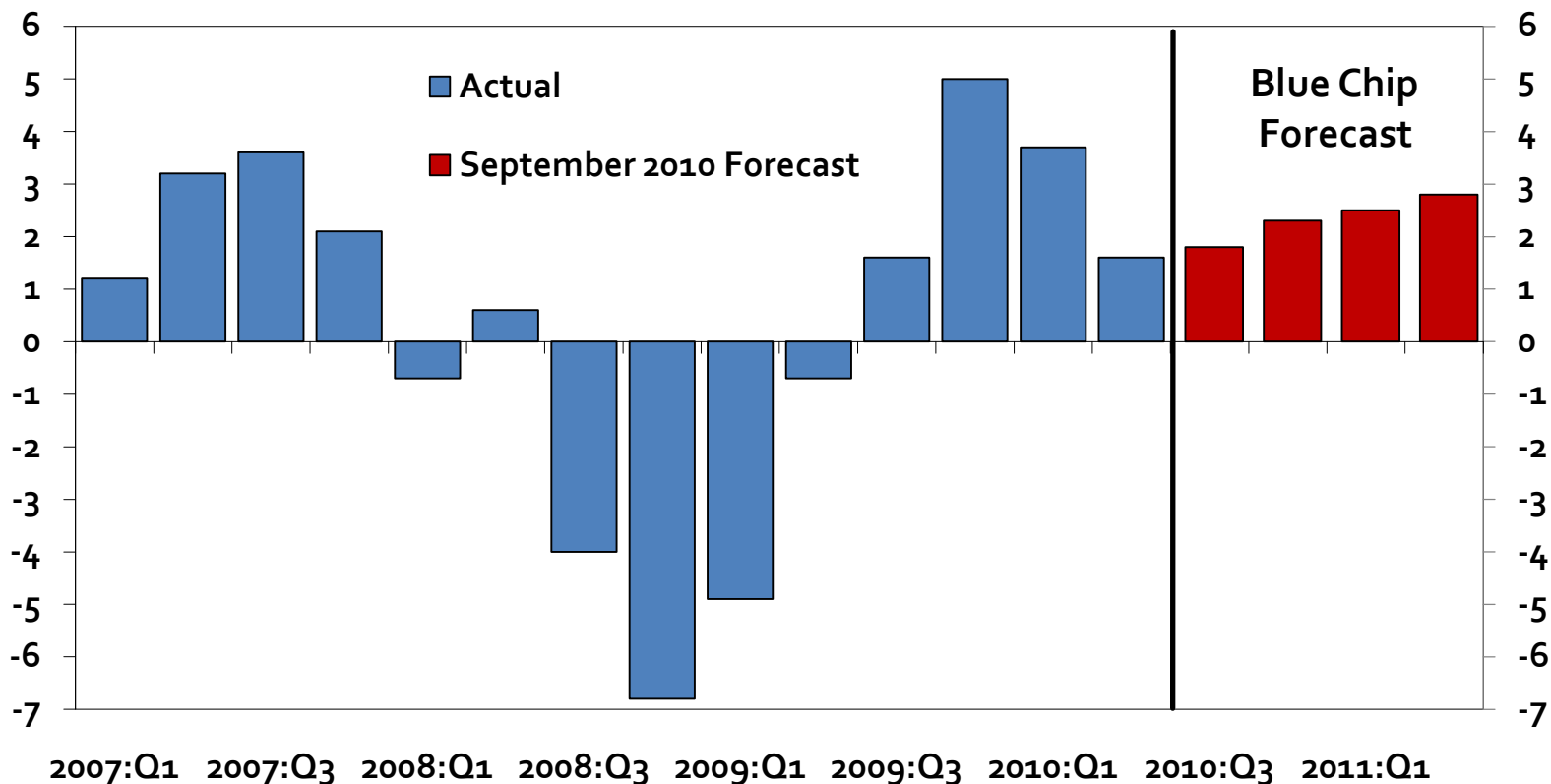
- **Farm Income – A look at demand**
- **Financial health of agricultural lenders and producers**
- **Importance of Main Street activity**
 - **Specifically, off-farm income**
- **Macroeconomic factors and farmland values**



Four consecutive quarters of growth signals a recovery, but it is expected to be slow.

Real GDP Growth

Annualized percent change from previous quarter



Source: Bureau of Economic Analysis and Blue Chip Economic Indicators



An elevated unemployment rate contributes to the expected slow recovery.

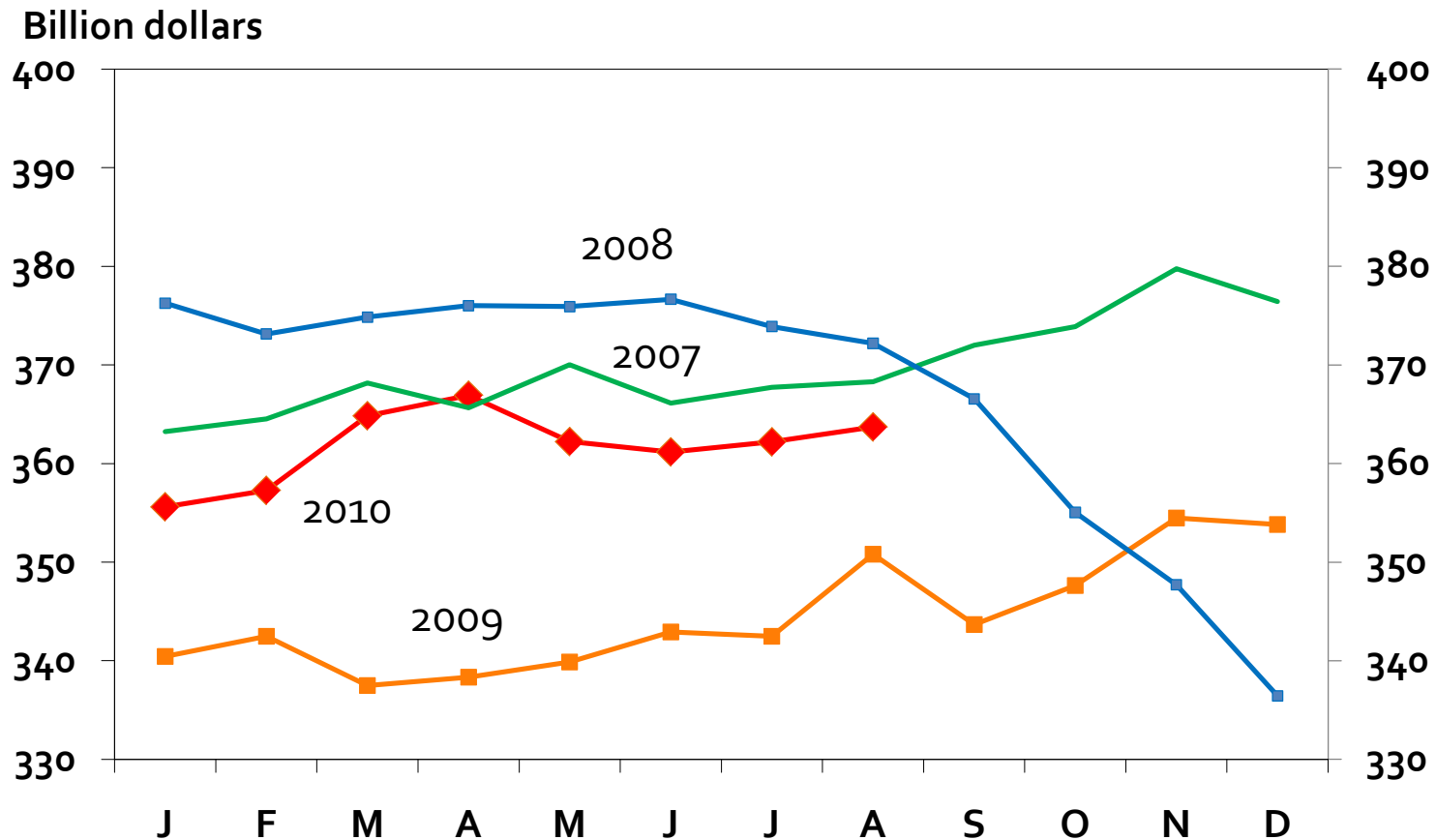


Source: Bureau of Economic Analysis and Bureau of Labor Statistics



U.S. consumers are spending money.

U.S. Monthly Retail and Food Sales

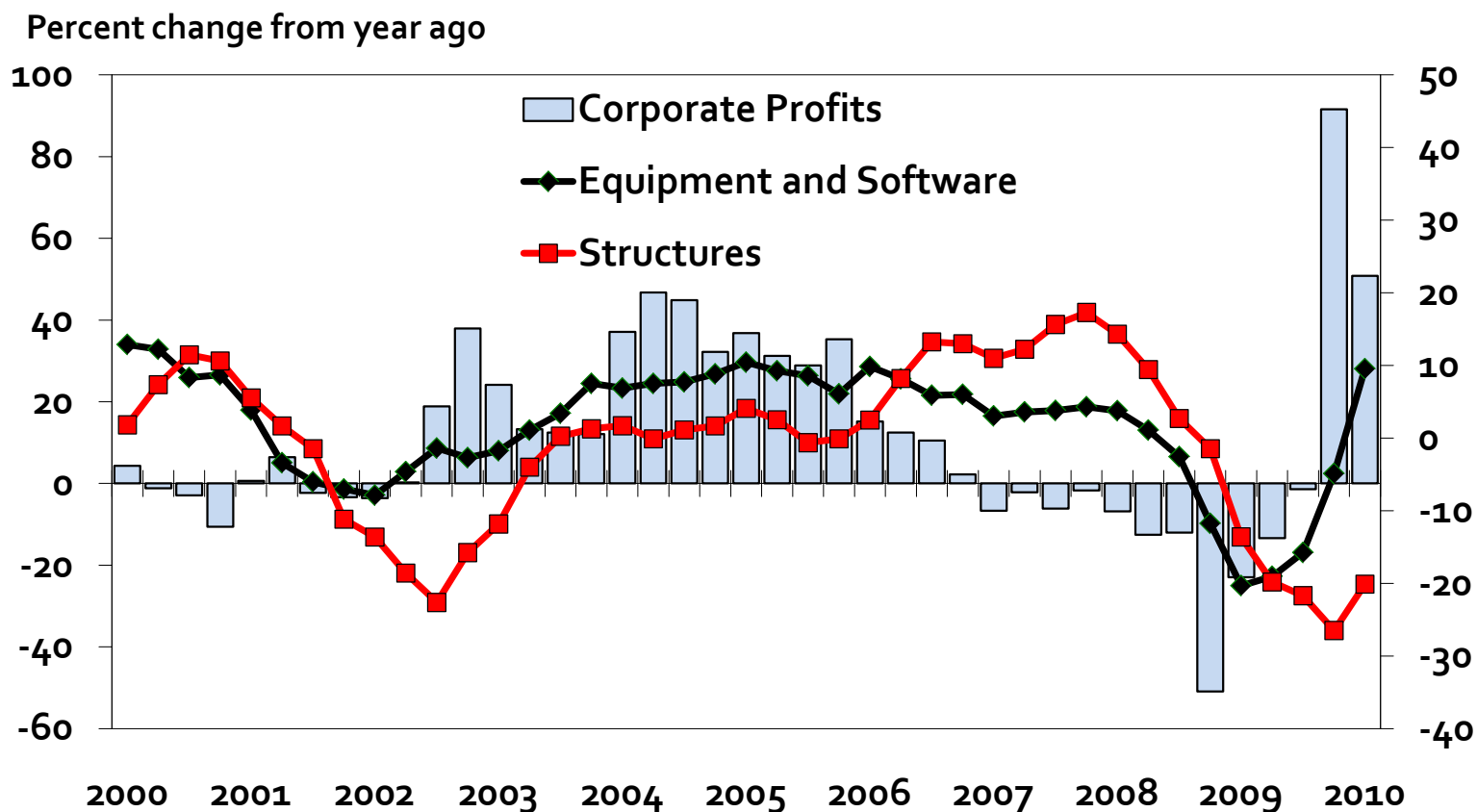


Source: U.S. Census Bureau



Corporate profits and business investment are beginning to rebound.

Corporate Profits and Nonresidential Fixed Investment

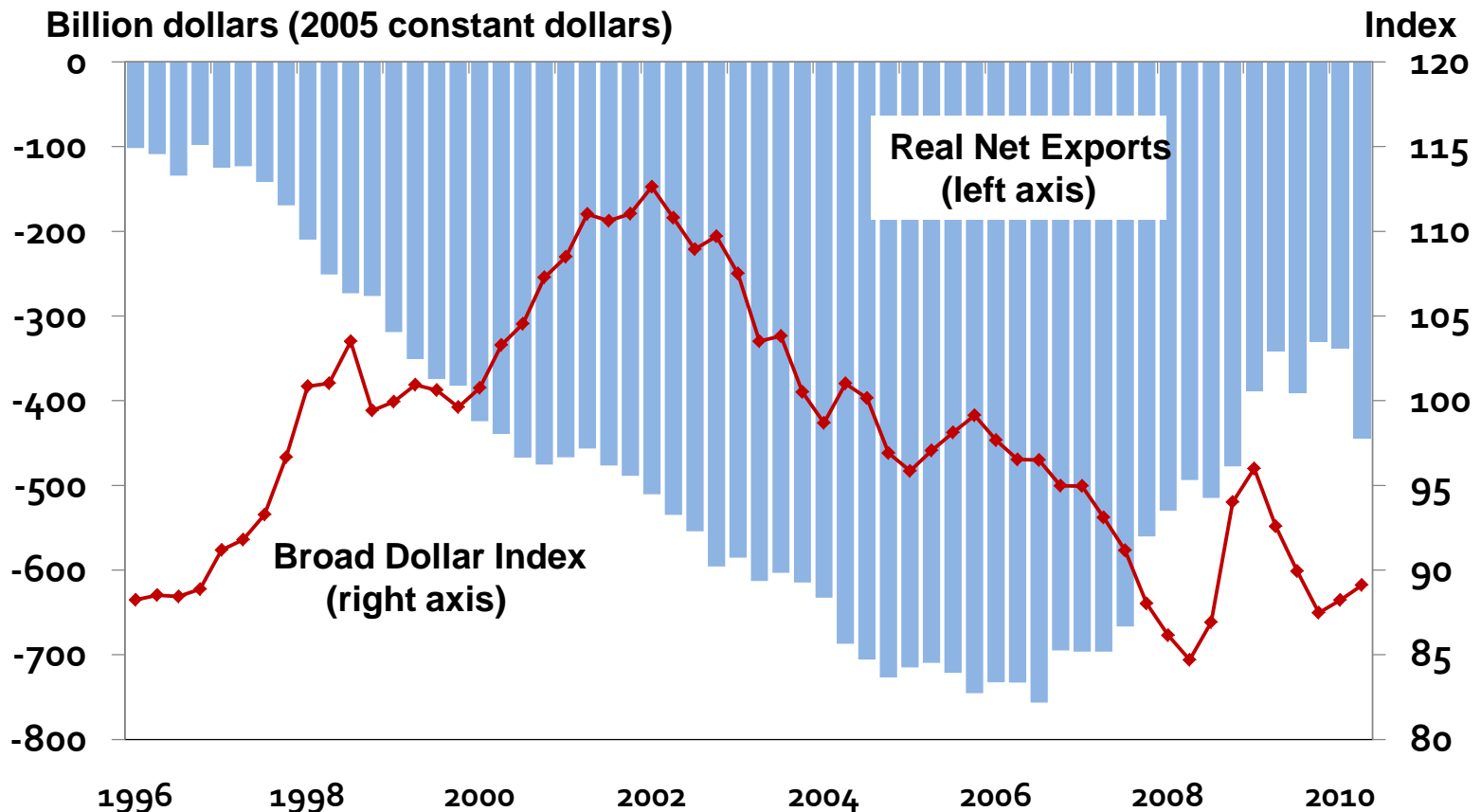


Source: Bureau of Economic Analysis



After dramatic improvements since 2007, U.S. net exports have stabilized.

U.S. Real Net Exports of Goods and Services and Value of the Dollar

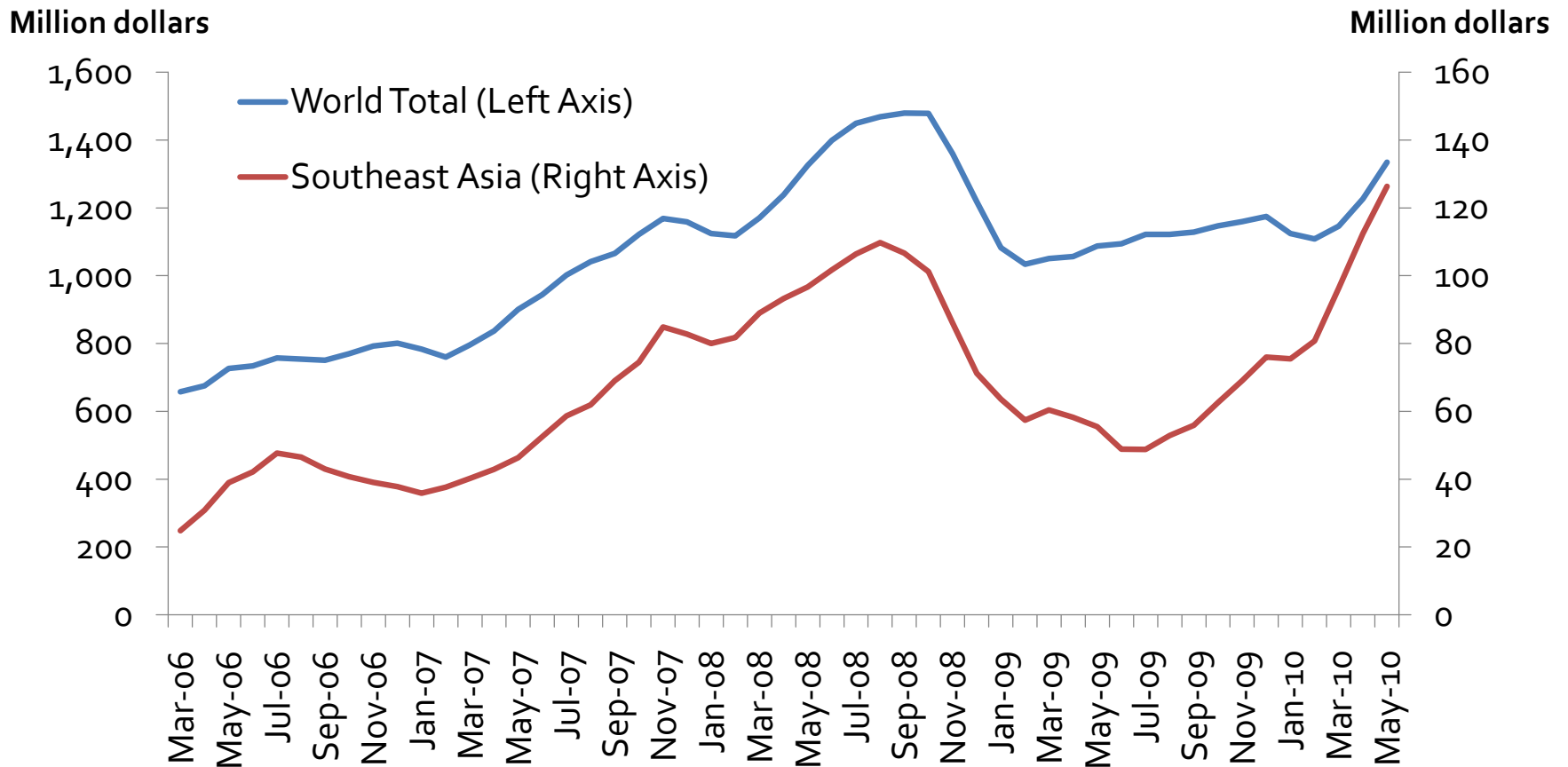


Source: Bureau of Economic Analysis and Federal Reserve Board of Governors



Protein exports are rising.

U.S. Protein Exports (Beef, Dairy, Pork, and Poultry) 3-month moving average



Source: USDA



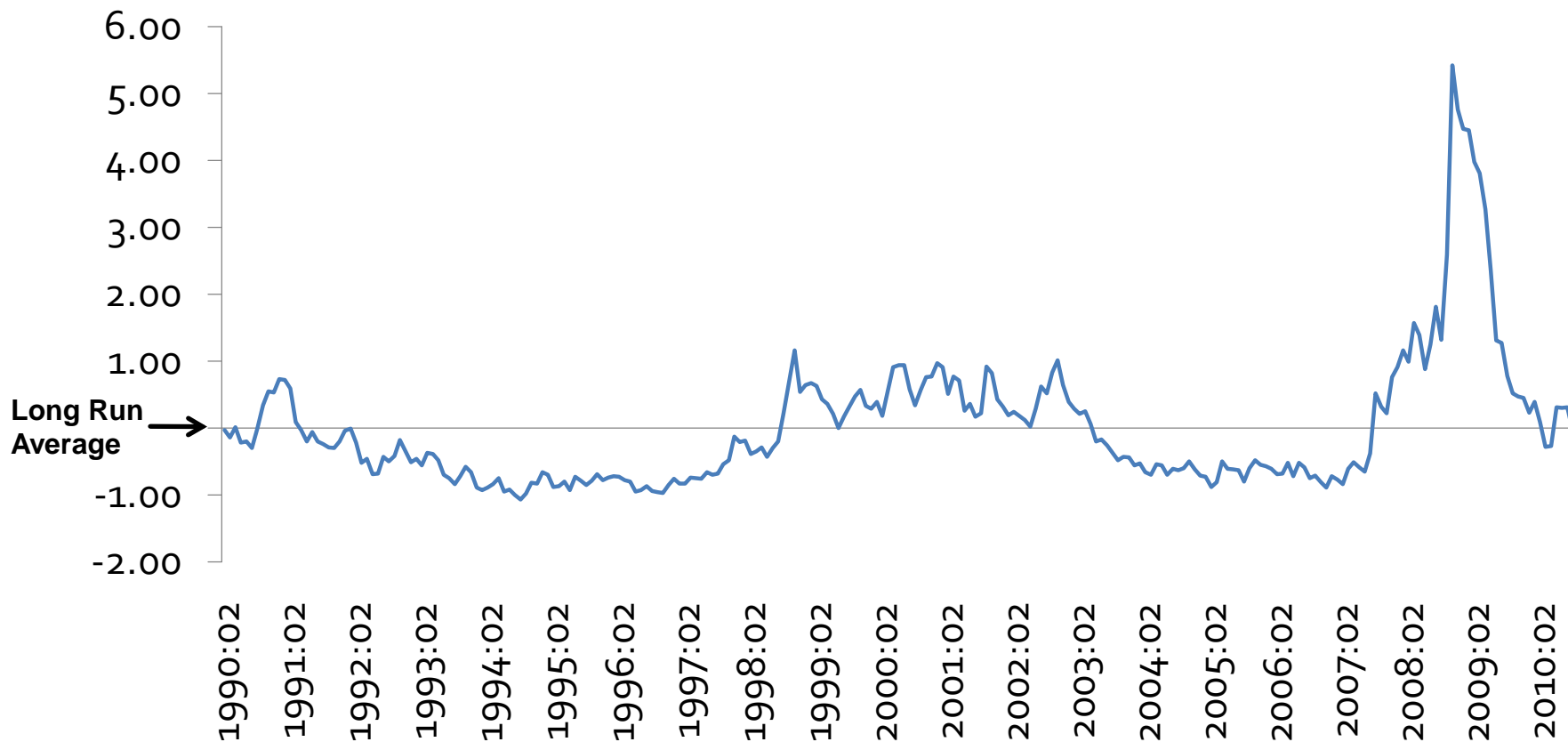
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Recently, financial stress has moved closer to its long-run average.

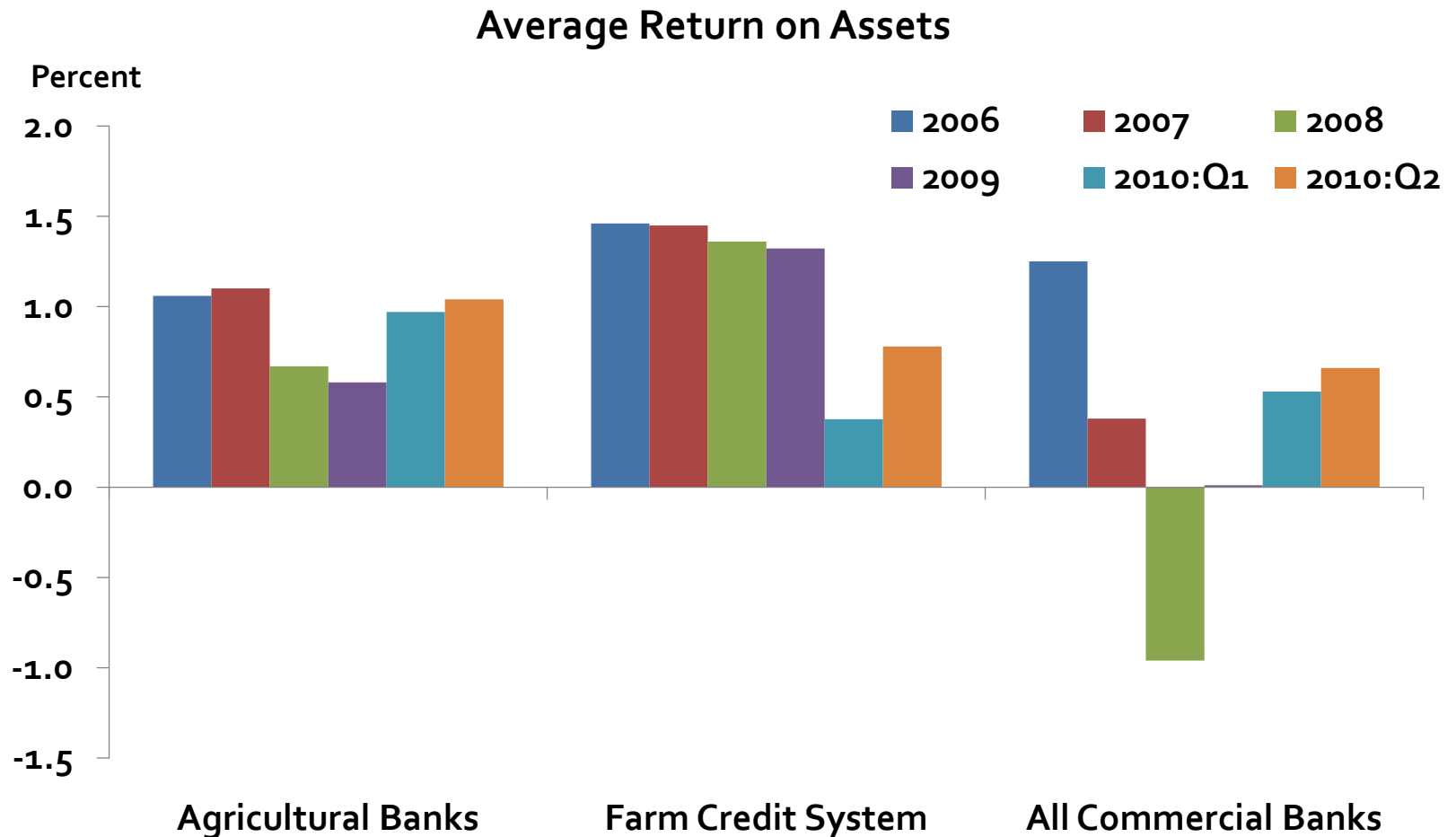
Kansas City Financial Stress Index



Available at www.kansascityfed.org



Returns at agricultural lenders remain strong.



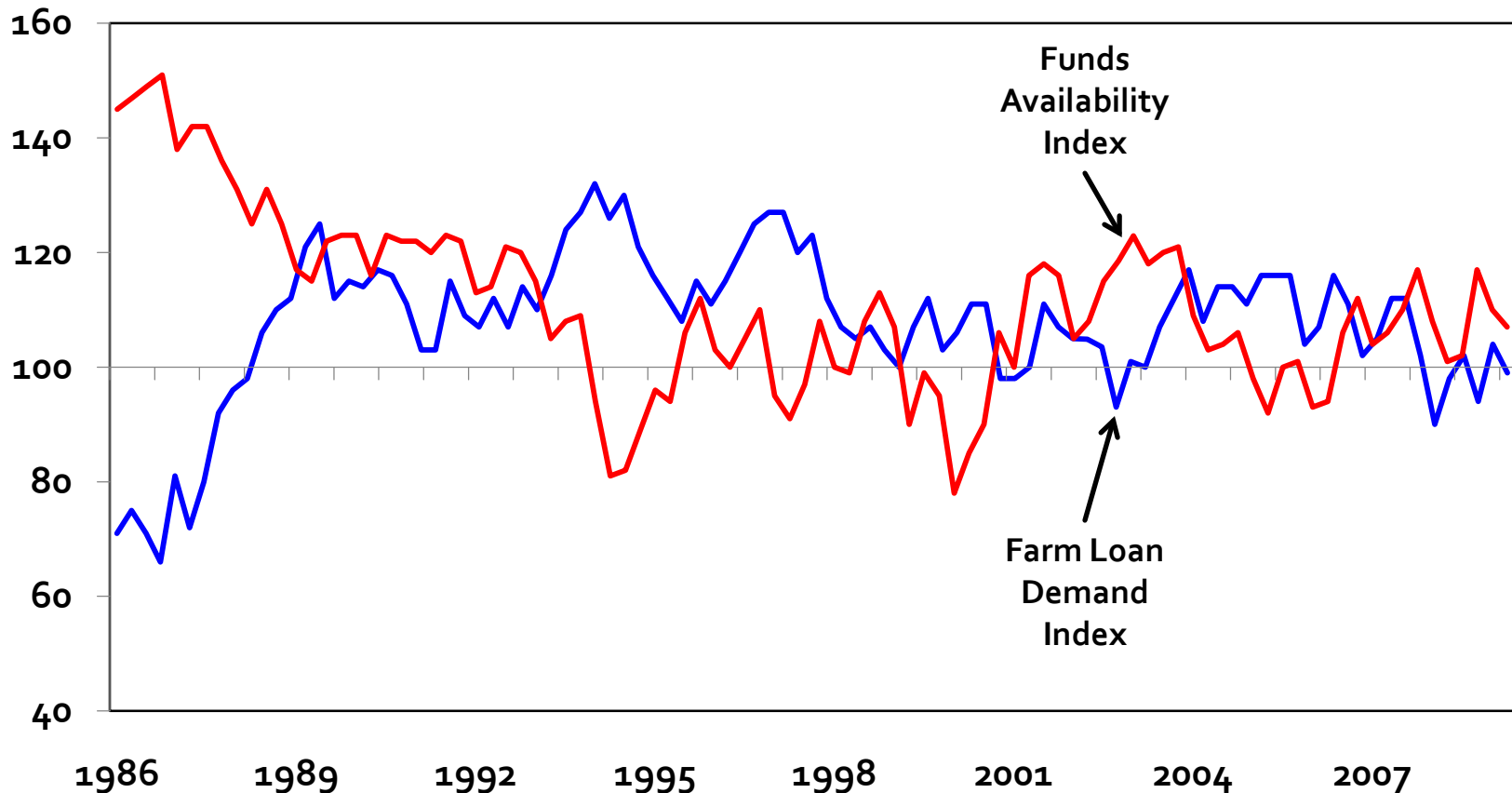
Source: Board of Governors of the Federal Reserve and FDIC

Agricultural banks are banks with agricultural loans accounting for 14% or more of their loan portfolio.



Funds are available for farm loans, but farm loan demand is muted.

Tenth District Farm Loan Demand and Funds Availability



Source: Federal Reserve Board of Governors and Federal Reserve Bank of Kansas City

Federal Reserve Bank of Kansas City – Omaha Branch
Regional, Public and Community Affairs Division

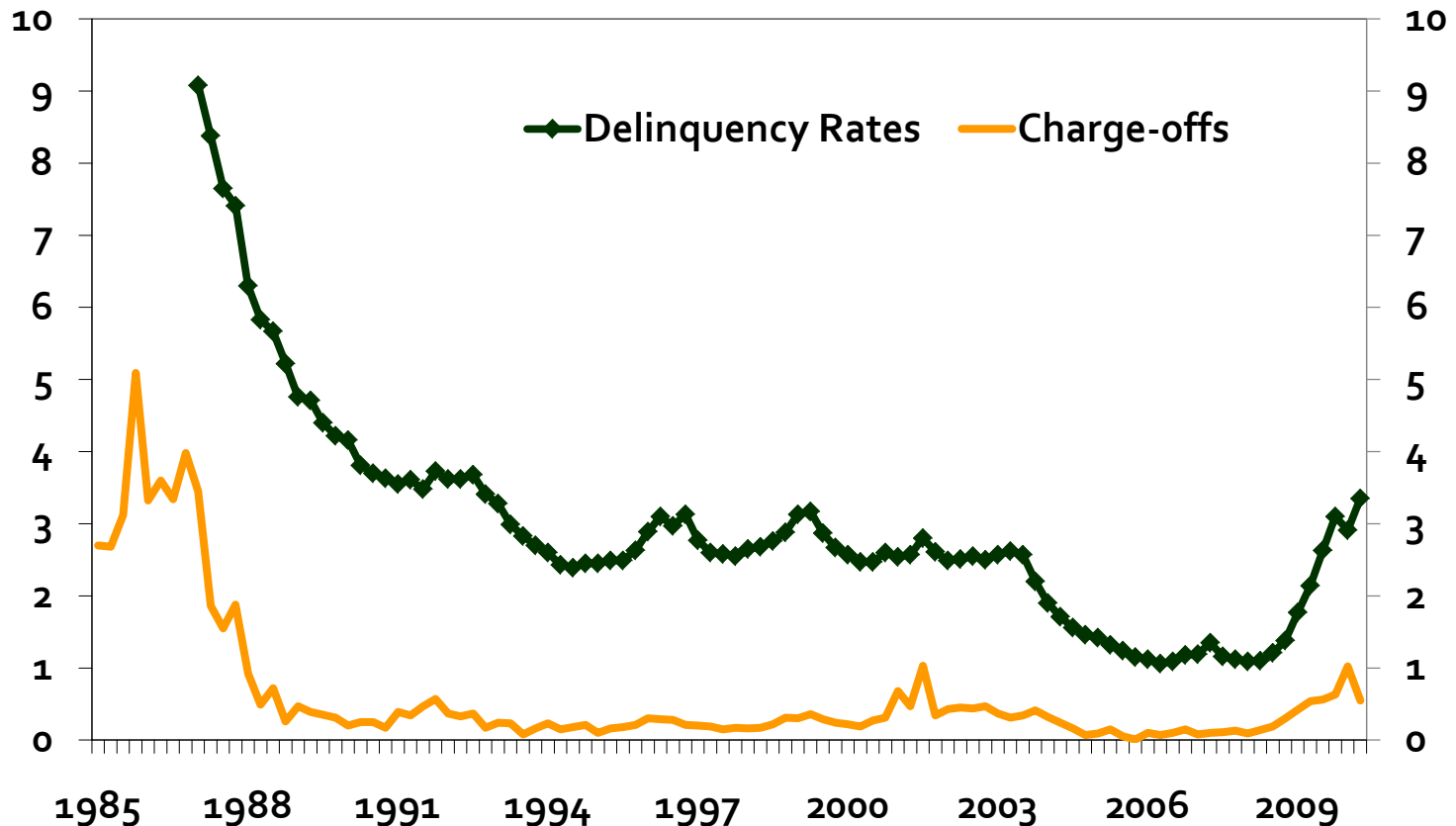


Delinquency rates are rising for ag loans.

Delinquency and Charge-off Rates on Ag Loans

All Commercial Banks

Percent of ag loans

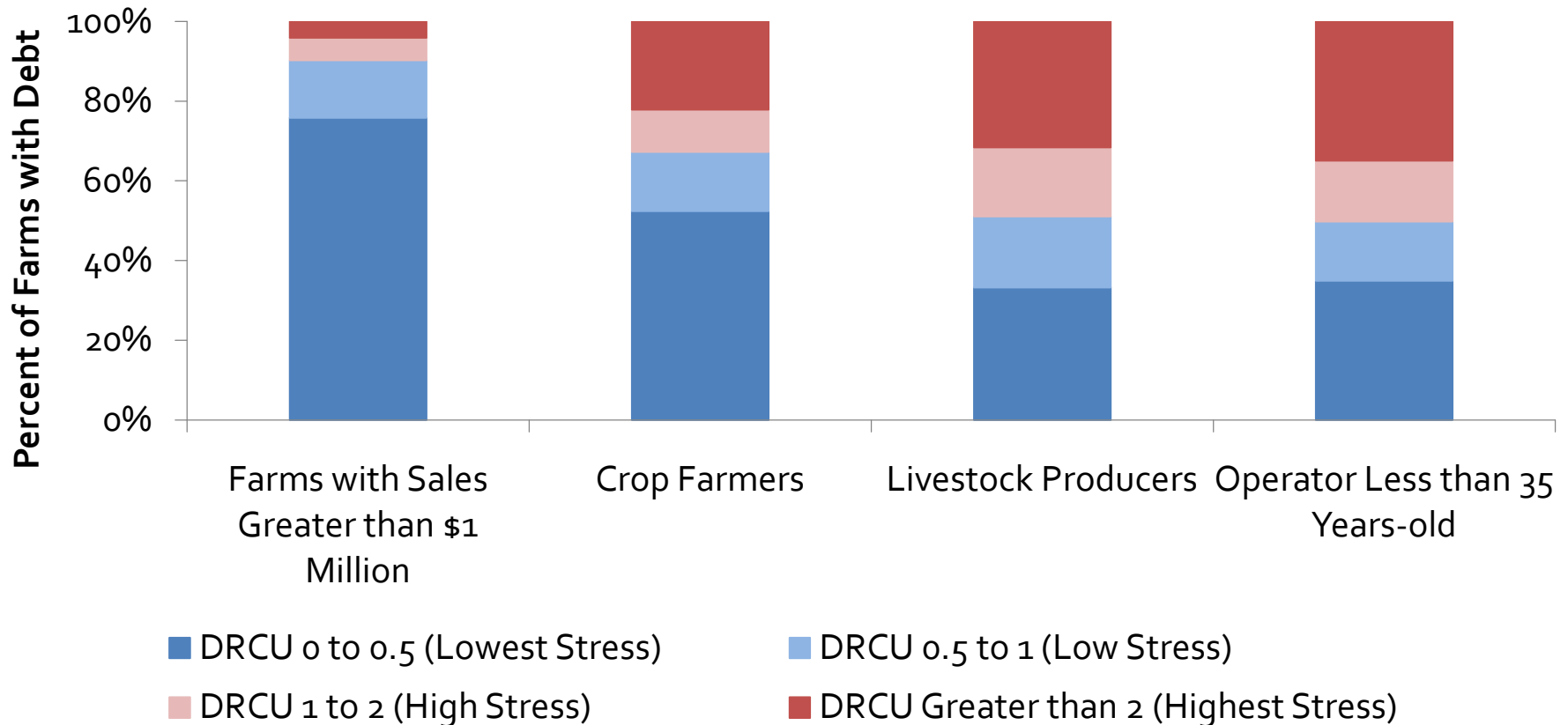


Source: Federal Reserve Board of Governors



In 2008, livestock and young farmers exhibited the most farm financial stress.

Debt Repayment Capacity Utilization (DRCU) Ratio Categories



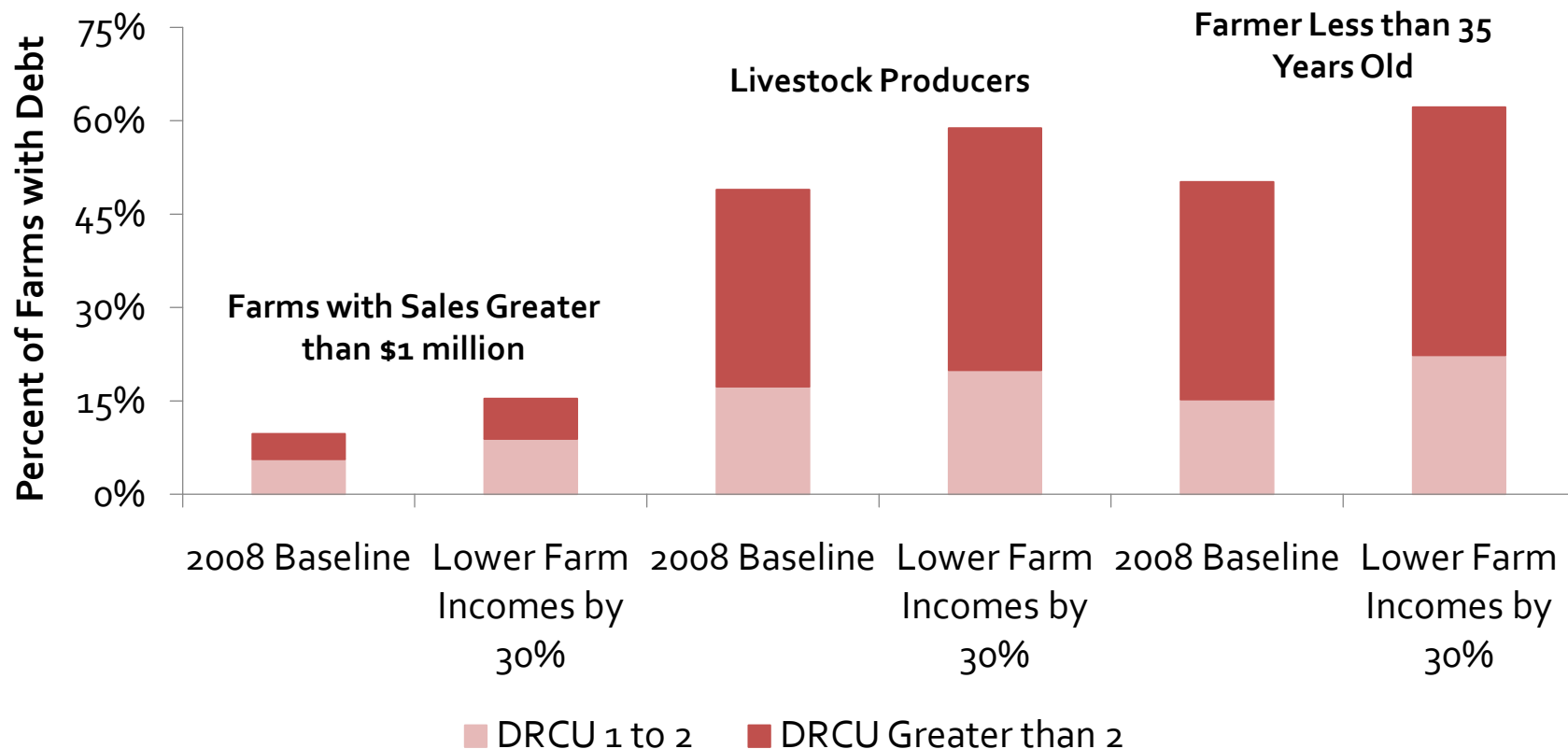
Source: 2008 Agricultural Resource Management Survey

Note: DRCU is actual farm debt divided by maximum feasible amount of farm debt that can be serviced from current farm income.



Livestock and young farmers' financial stress is most affected by falling farm incomes.

Debt Repayment Capacity Utilization (DRCU)



Source: 2008 Agricultural Resource Management Survey

Note: DRCU is actual farm debt divided by maximum feasible amount of farm debt that can be serviced from current farm income.



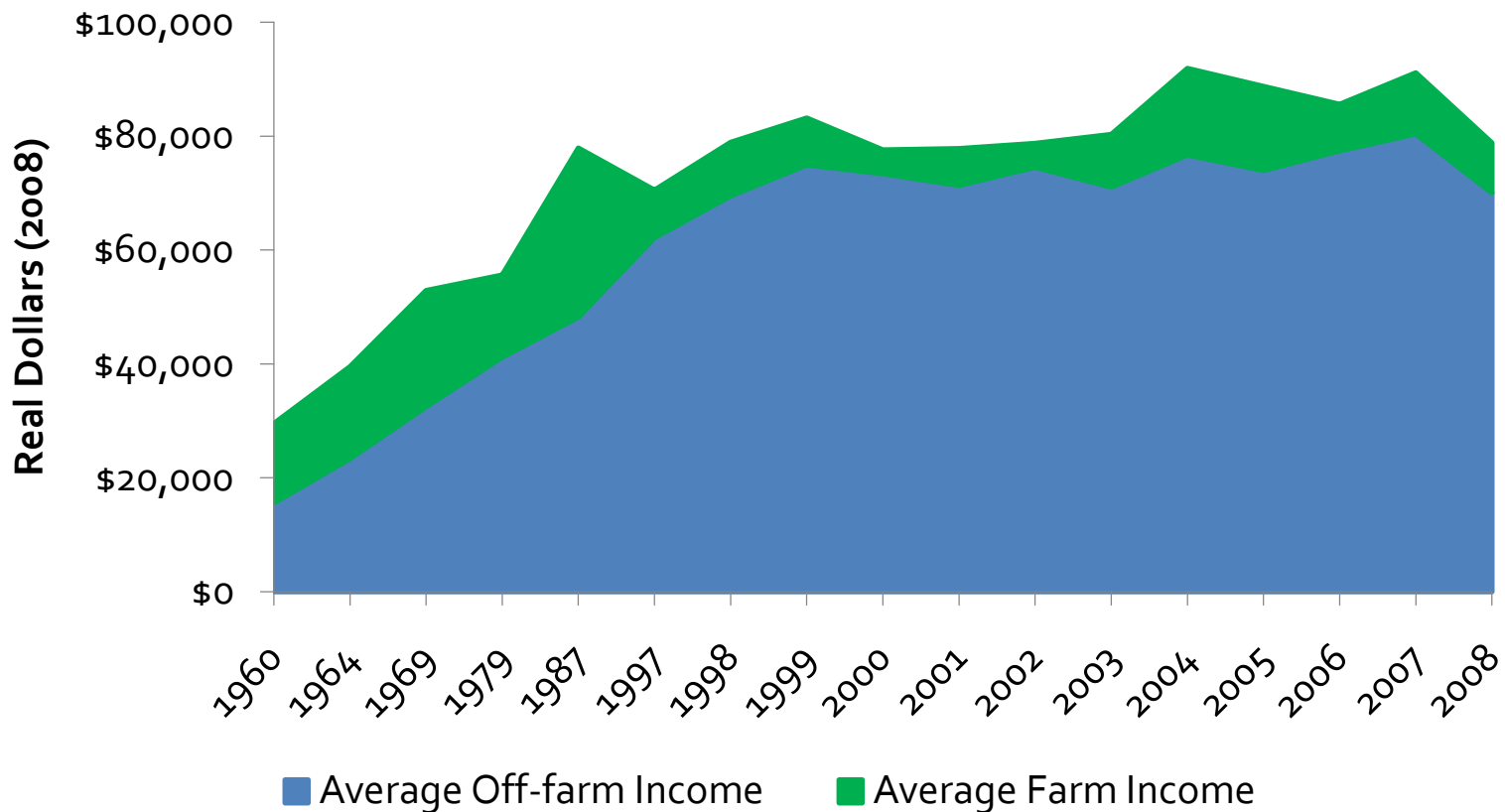
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Off-farm income makes up a significant proportion of total farm household income.

Share of Farm and Off-farm Income for All Farm Households



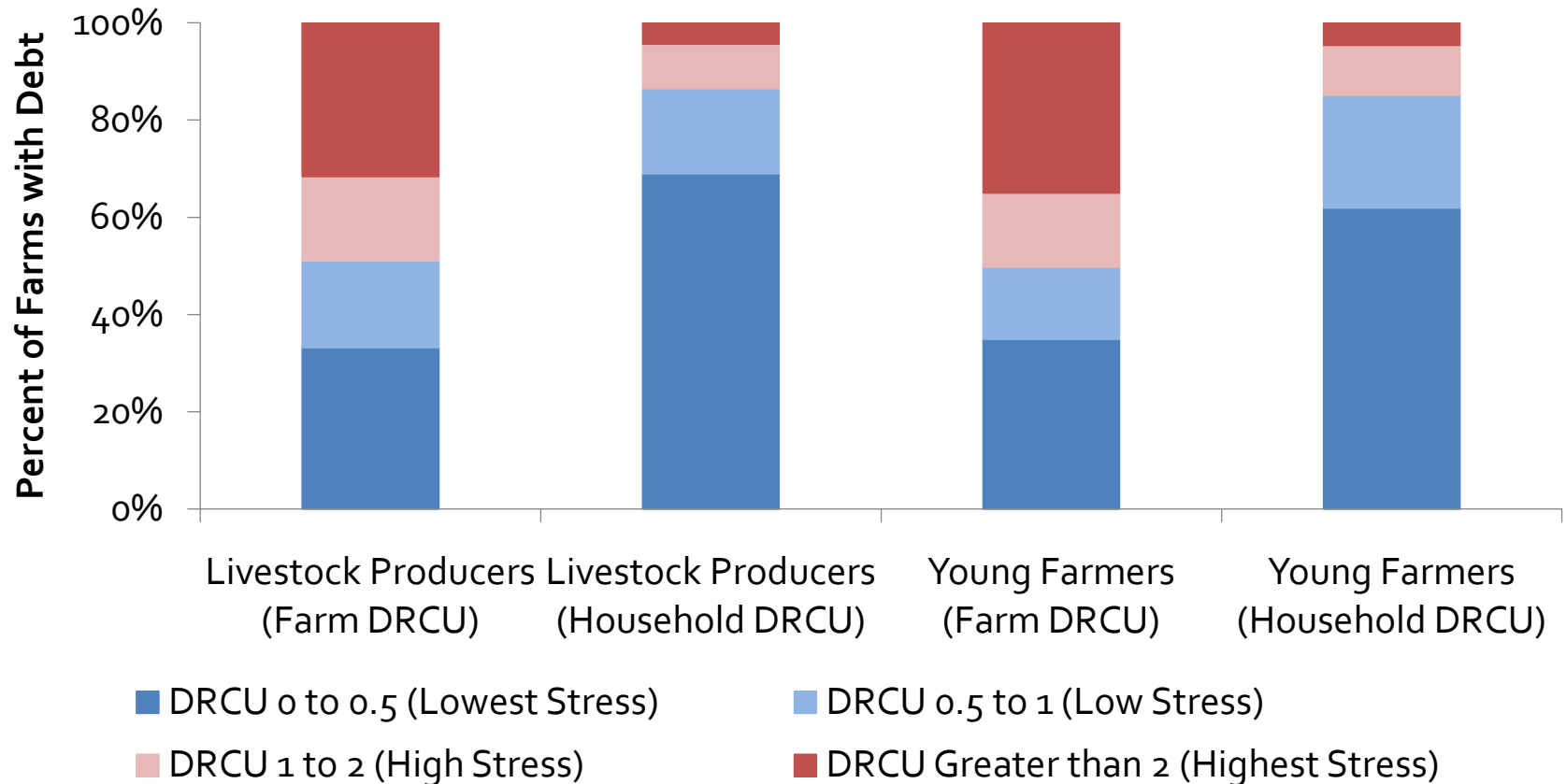
Source: Census of Agriculture

Note: Farm household is defined as having more than \$1,000 of farm sales.



Off-farm income significantly lowers financial stress for livestock and young farmers.

Debt Repayment Capacity Utilization (DRCU) Ratio Categories



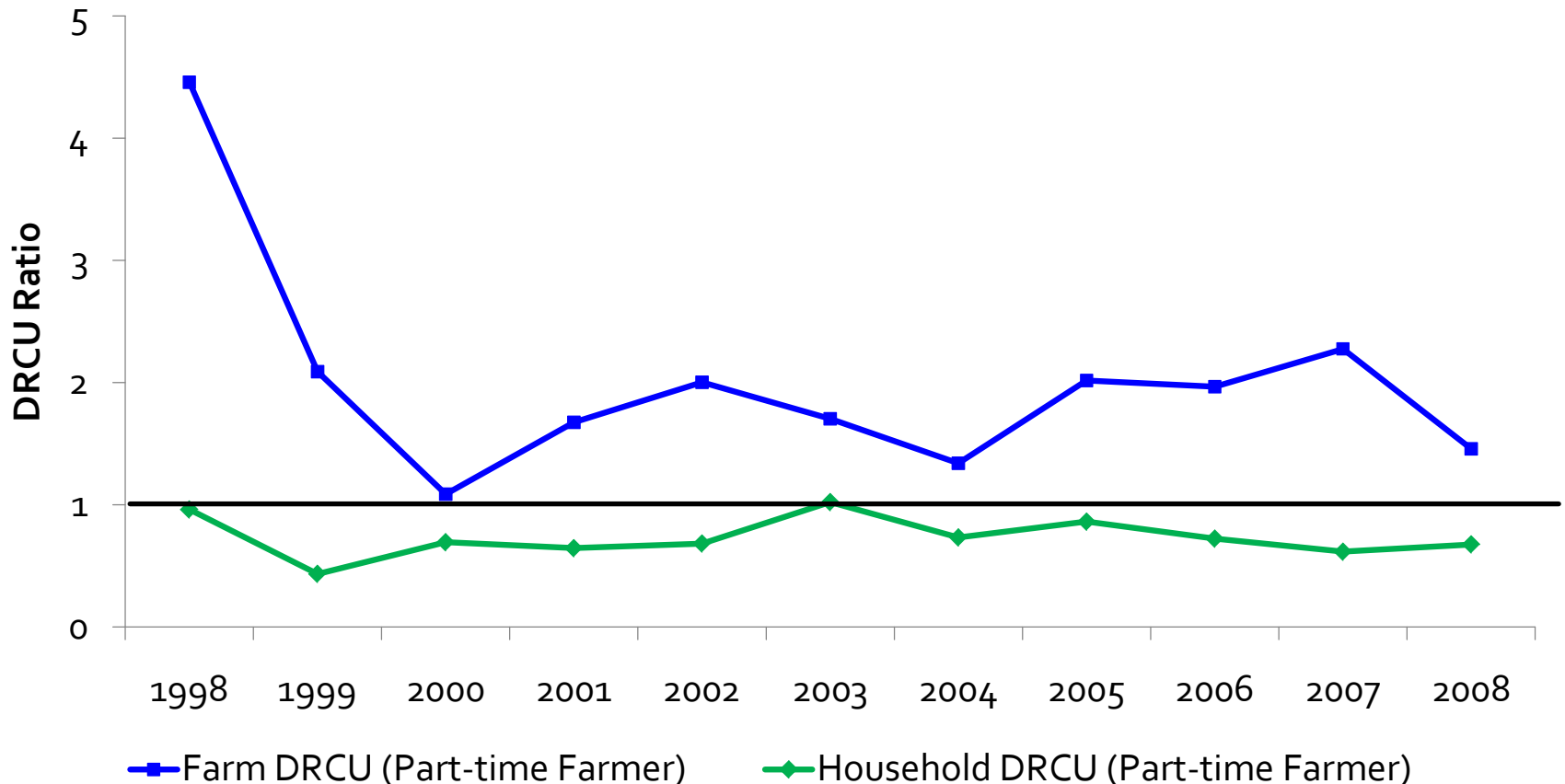
Source: 2008 Agricultural Resource Management Survey

Note: Farm DRCU only considers farm income to repay farm debt. Household DRCU considers all farm household income to repay all farm household debt.



Part-time farmers' debt repayment ability relies heavily on off-farm income.

Debt Repayment Capacity Utilization (DRCU) Ratio

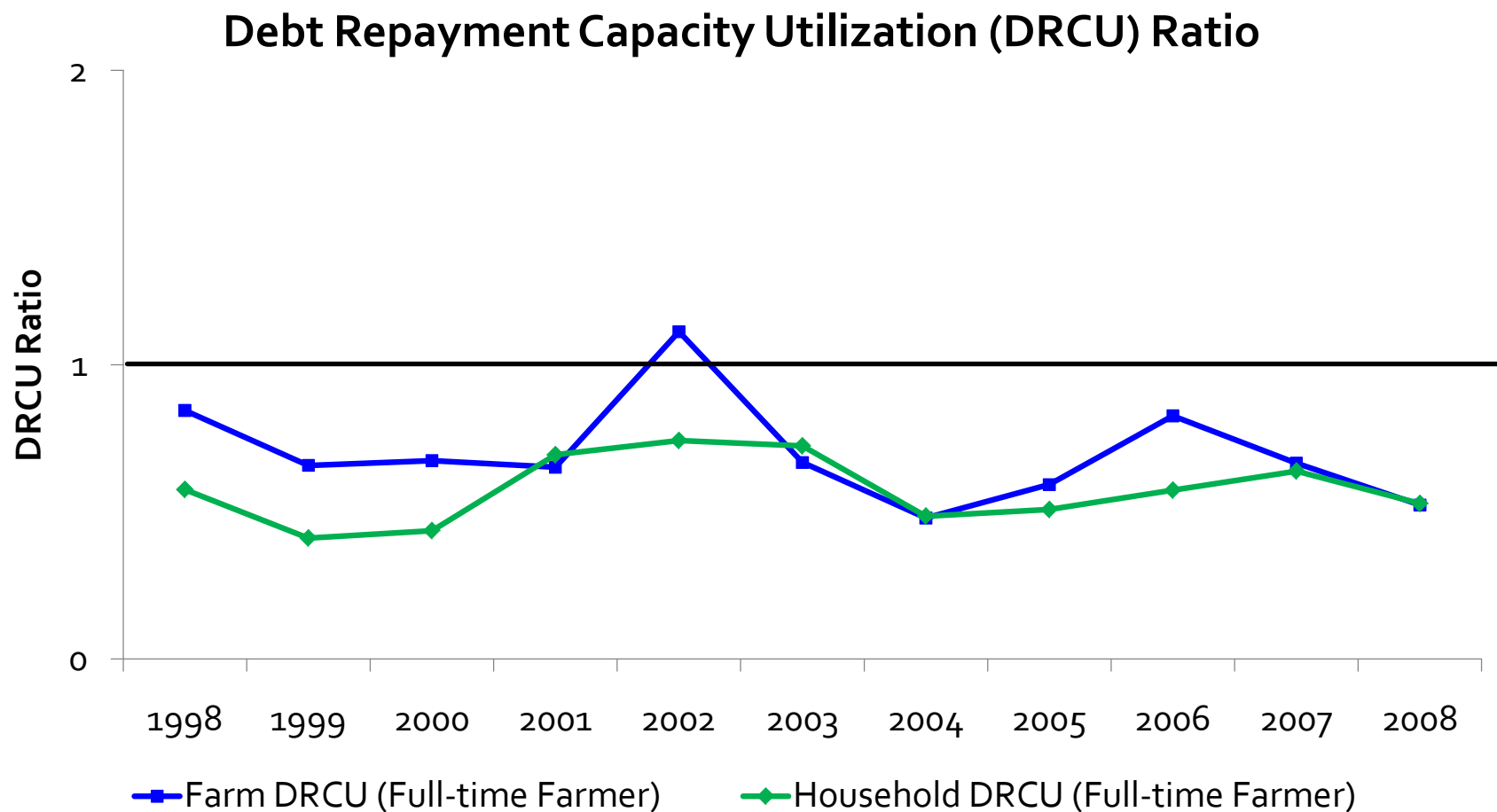


Source: Agricultural Resource Management Survey

Note: Farm DRCU only considers farm income to repay farm debt. Household DRCU considers all farm household income to repay all farm household debt.



Off-farm income helps full-time farmers repay debt when farm income drops.



Source: Agricultural Resource Management Survey

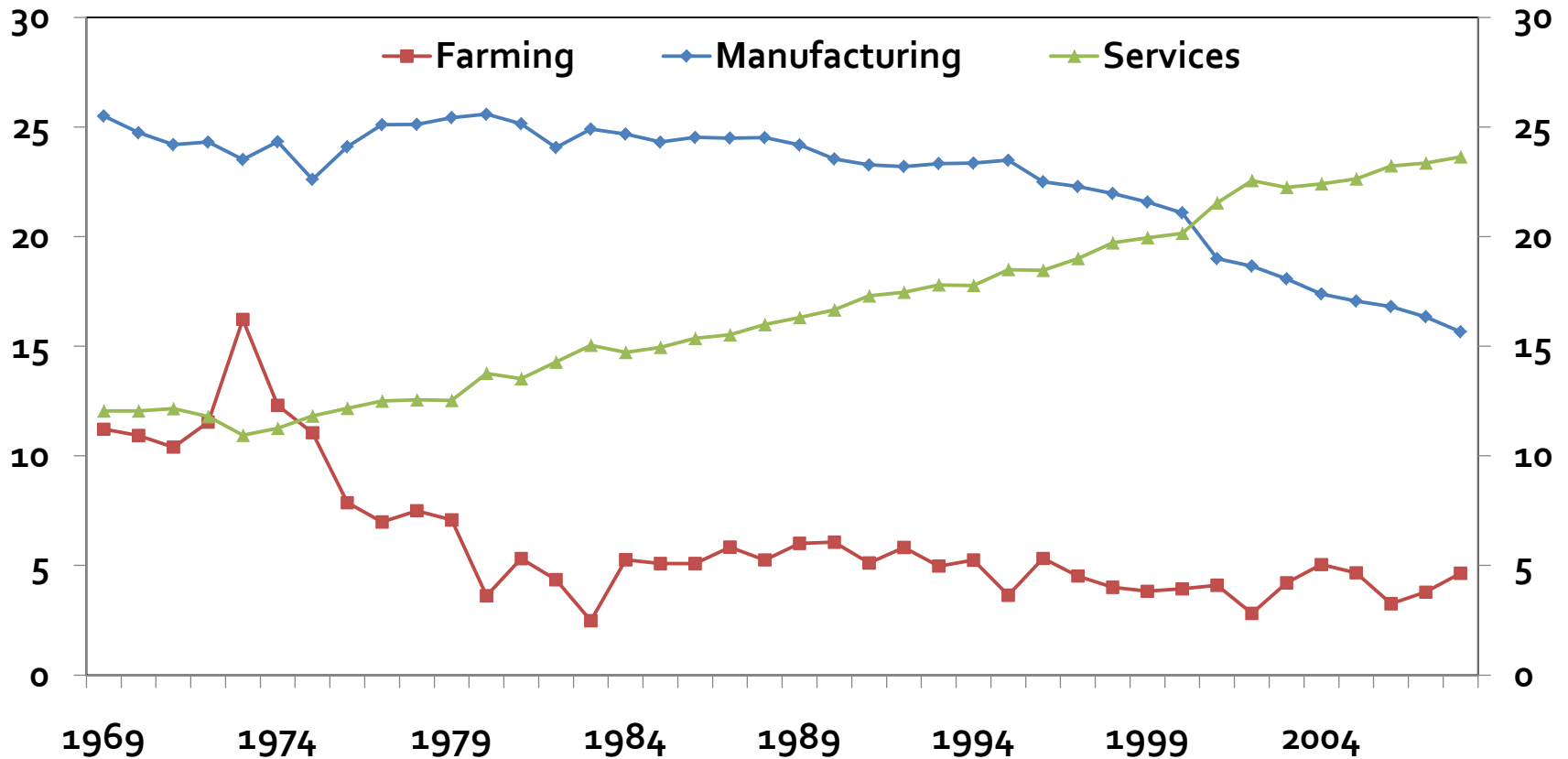
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Farming is not the only foundation for rural economies.

Rural Earnings from Farming, Manufacturing, and Service Sectors

Percent of total earnings in nonmetropolitan counties

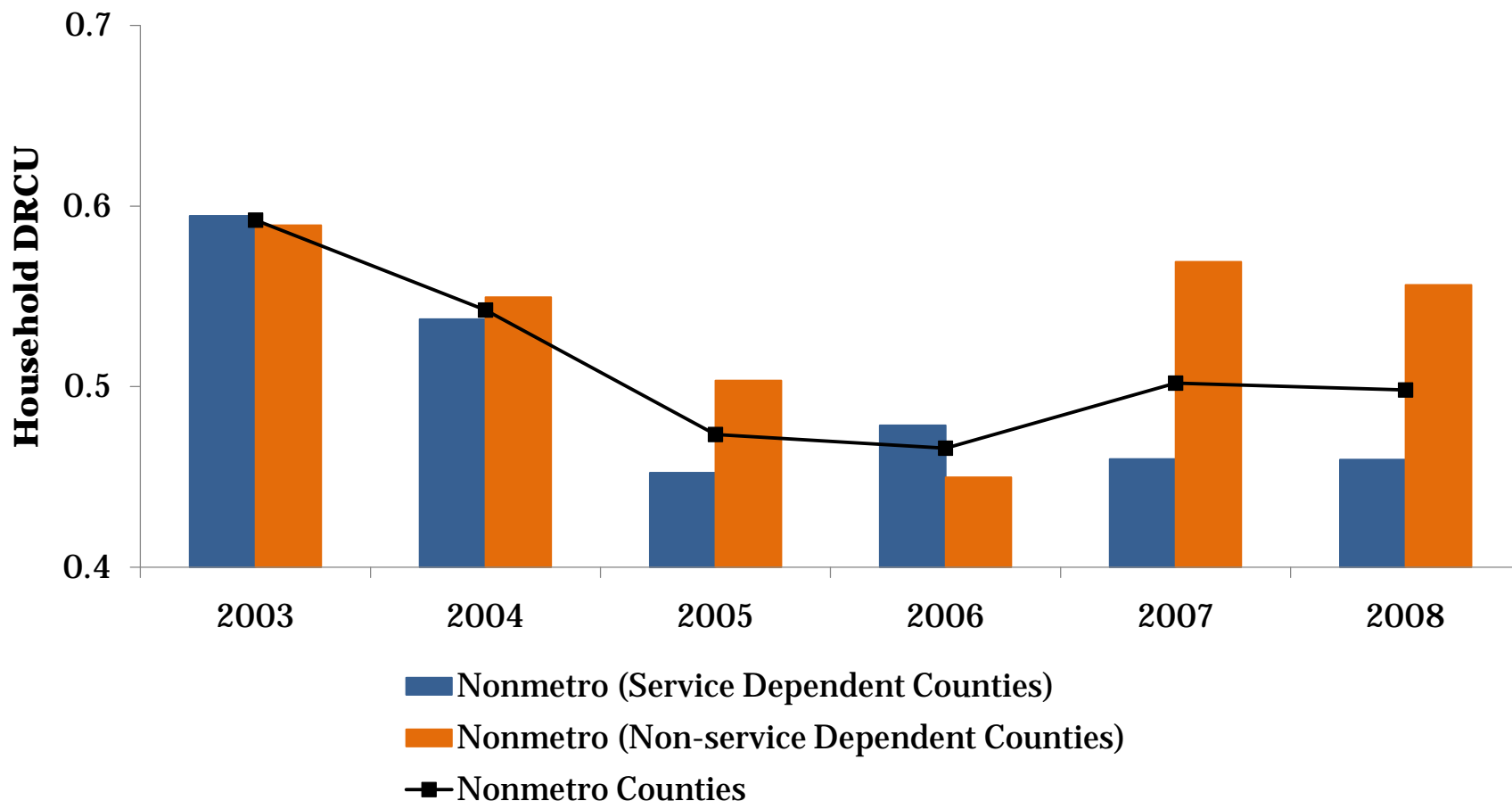


Source: USDA



Farm households have benefited from the service sector.

Debt Repayment Capacity Utilization (DRCU) Ratio



Source: Agricultural Resource Management Survey

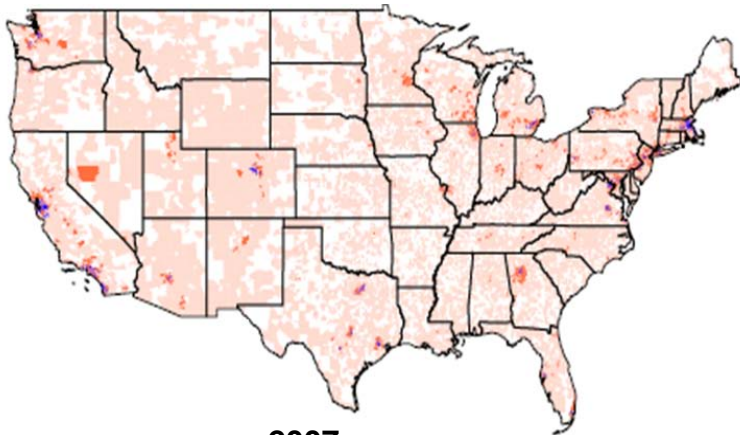
Note: Household DRCU considers all farm household income to repay all farm household debt.



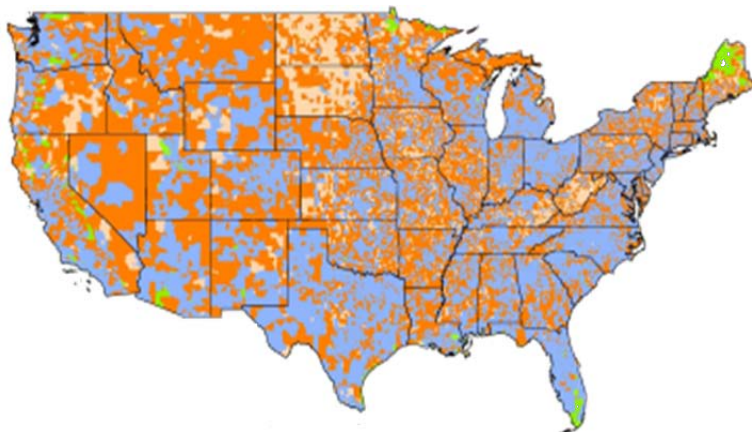
Can Broadband connections help the rural service sector flourish?

Broadband Providers

2000



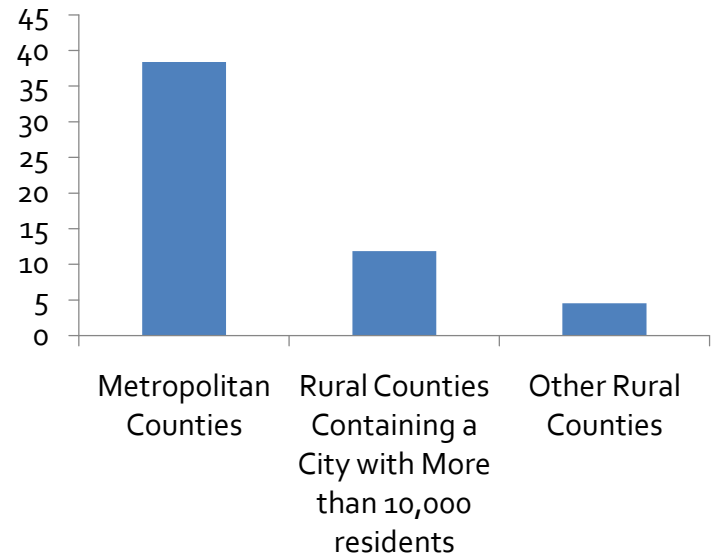
2007



7 or more 4 to 6 1 to 3 Zero

Broadband Connections

Percent of counties with more than 60% of their households with fixed residential high-speed connections



Broadband connections could enhance telemedicine in rural areas. Whitacre, et al. (2007) estimates that telemedicine can add as much as \$145,000 per year to a rural economy.

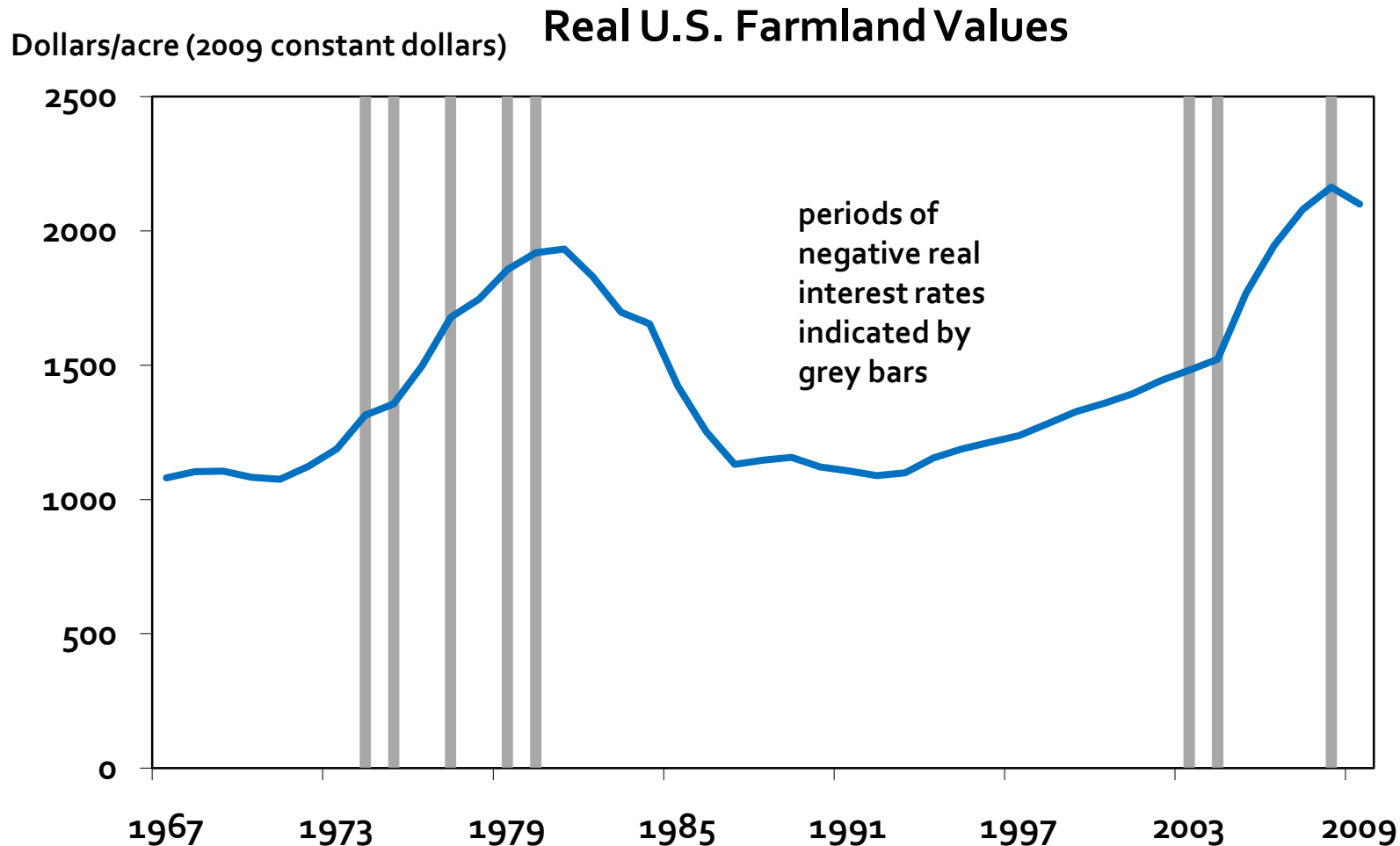


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Do negative real interest rates have an affect on farmland values?

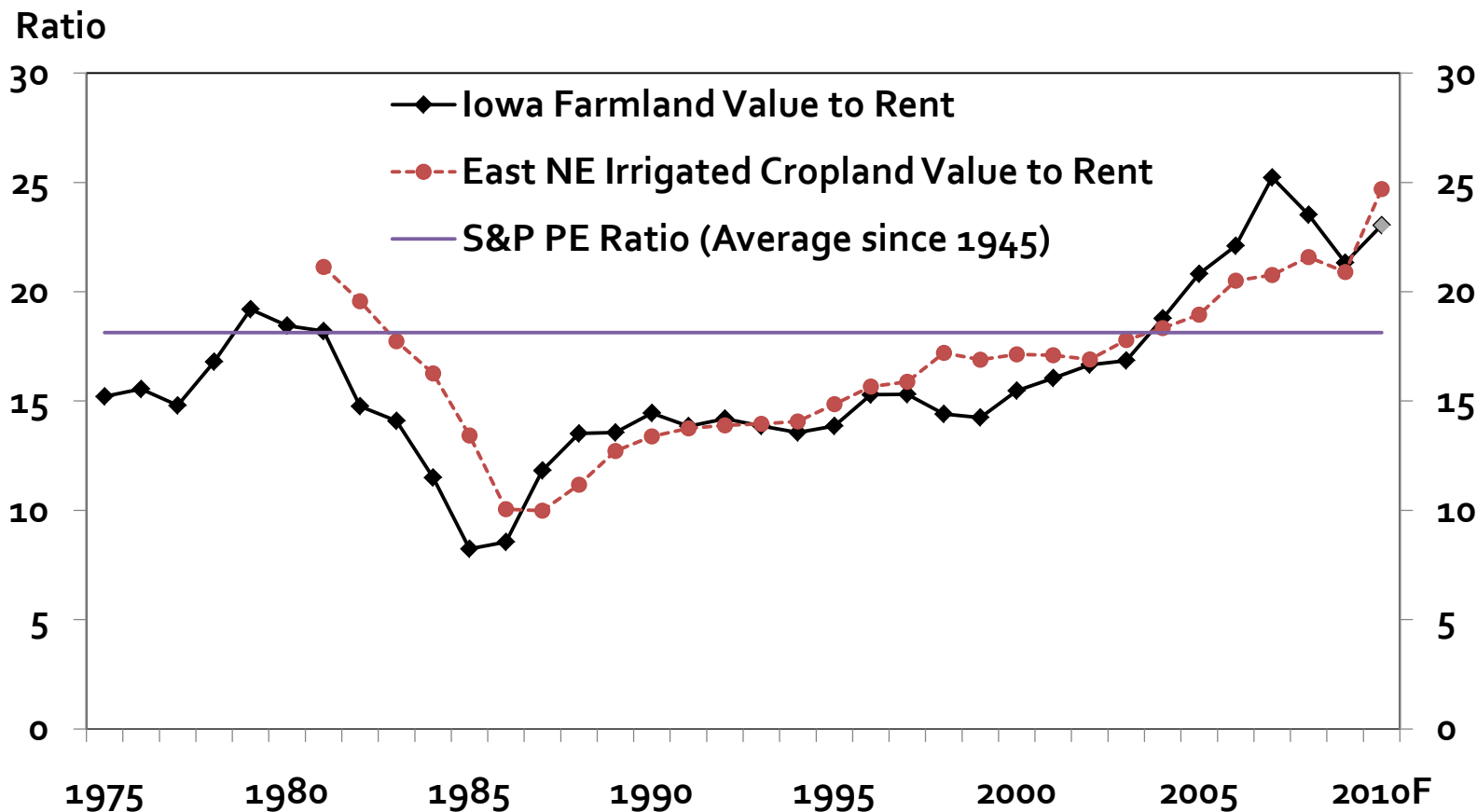


Source: USDA and Board of Governors



Is a farmland bubble brewing? Are values too high or rents too low?

Farmland Values to Rent Ratio



Calculations based on Iowa State University and University of Nebraska data



Conclusion

- U.S. and international demand have a significant affect on farm incomes
- Credit is available for creditworthy producers, but do these producers need/want it?
- Off-farm income plays a significant role in farm household financial stress
- Macroeconomic events flow through to agricultural markets



For More Information

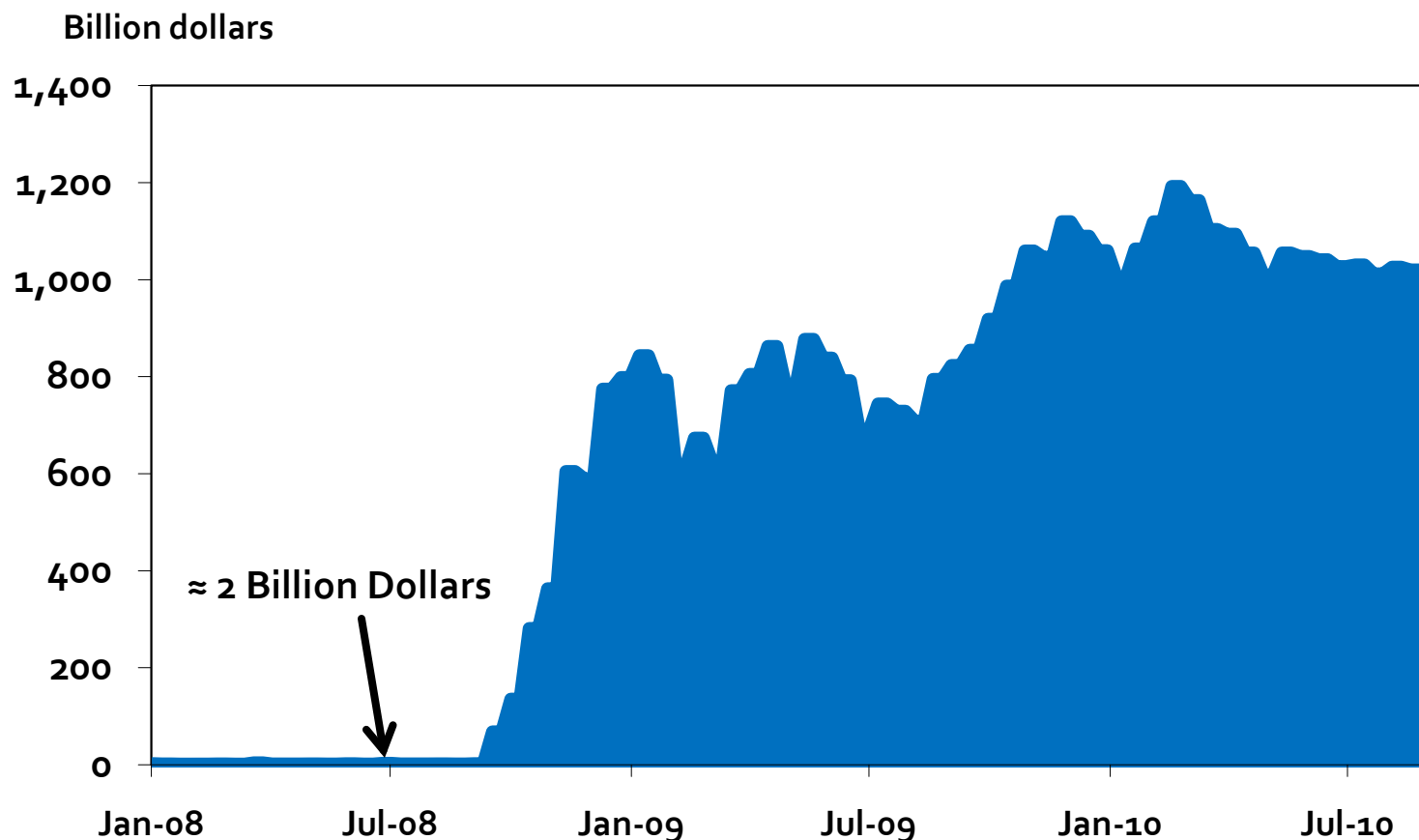
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Branch

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Excess reserves held at the Fed have surged.

Excess Reserves of Depository Institutions



Source: Federal Reserve Board of Governors



Inflation is based on money and velocity.

Quantity Theory of Money

$$\text{Price} = \frac{\text{Money} * \text{Velocity}}{\text{Quantity}}$$

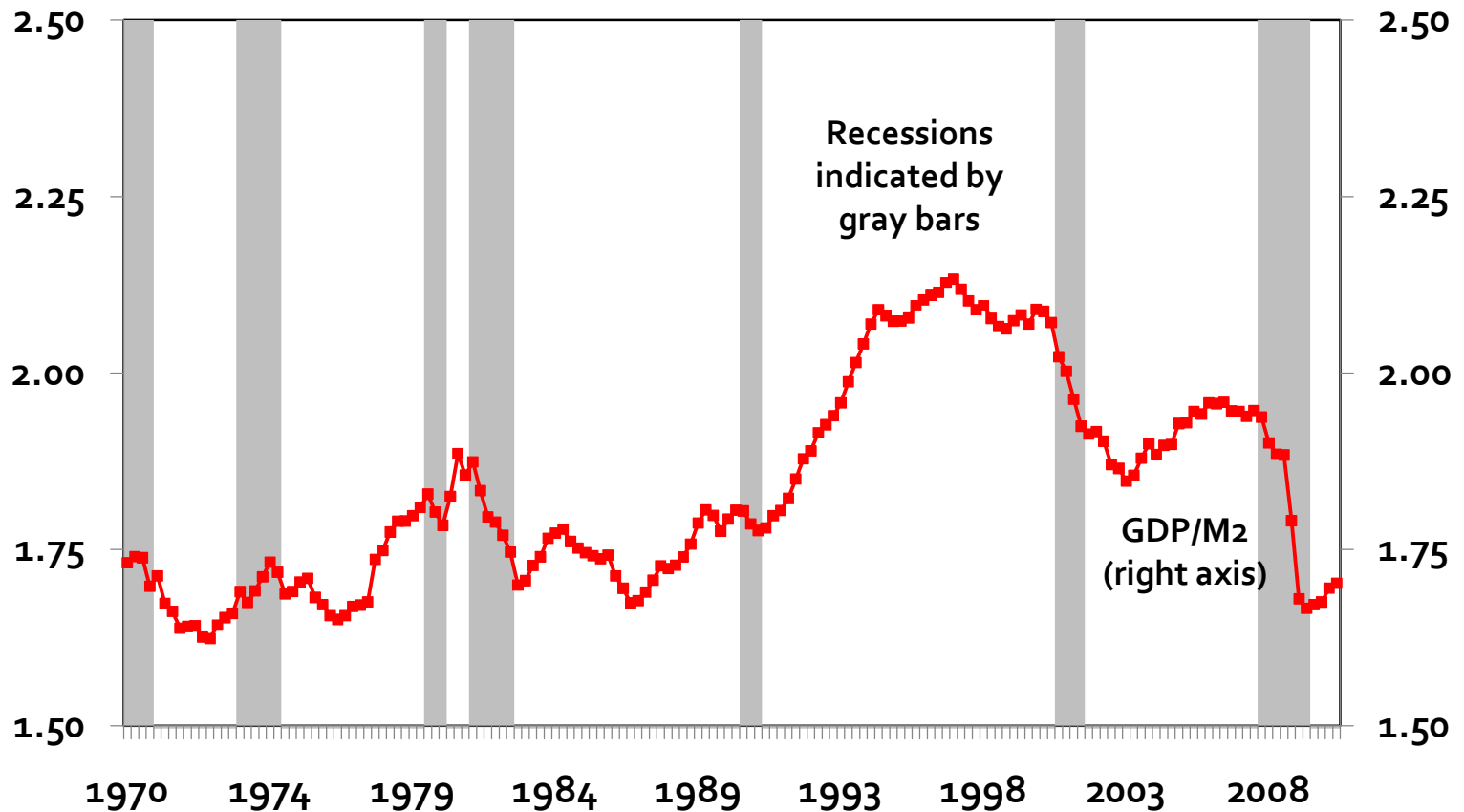
Definition of Inflation:

Too much money $M \uparrow$
chasing $V \uparrow$
too few goods $Q \downarrow$



Velocity has fallen.

U.S. Velocity of Money

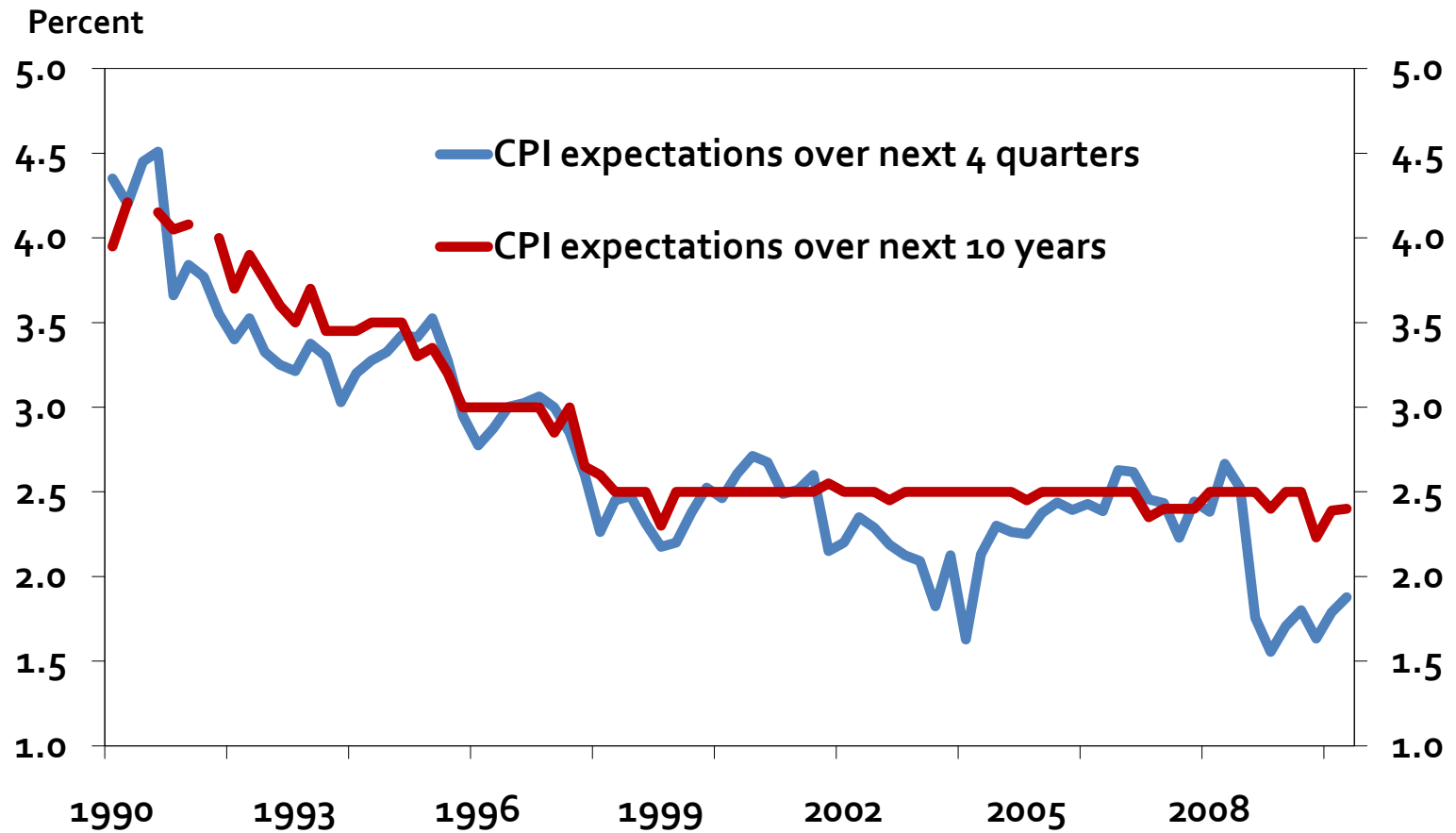


Source: BEA and Federal Reserve Board of Governors



Inflation expectations remain subdued.

U.S. Inflation Expectations



Source: Survey of Professional Forecasters

