



# MANAGING IN TOUGHER TIMES

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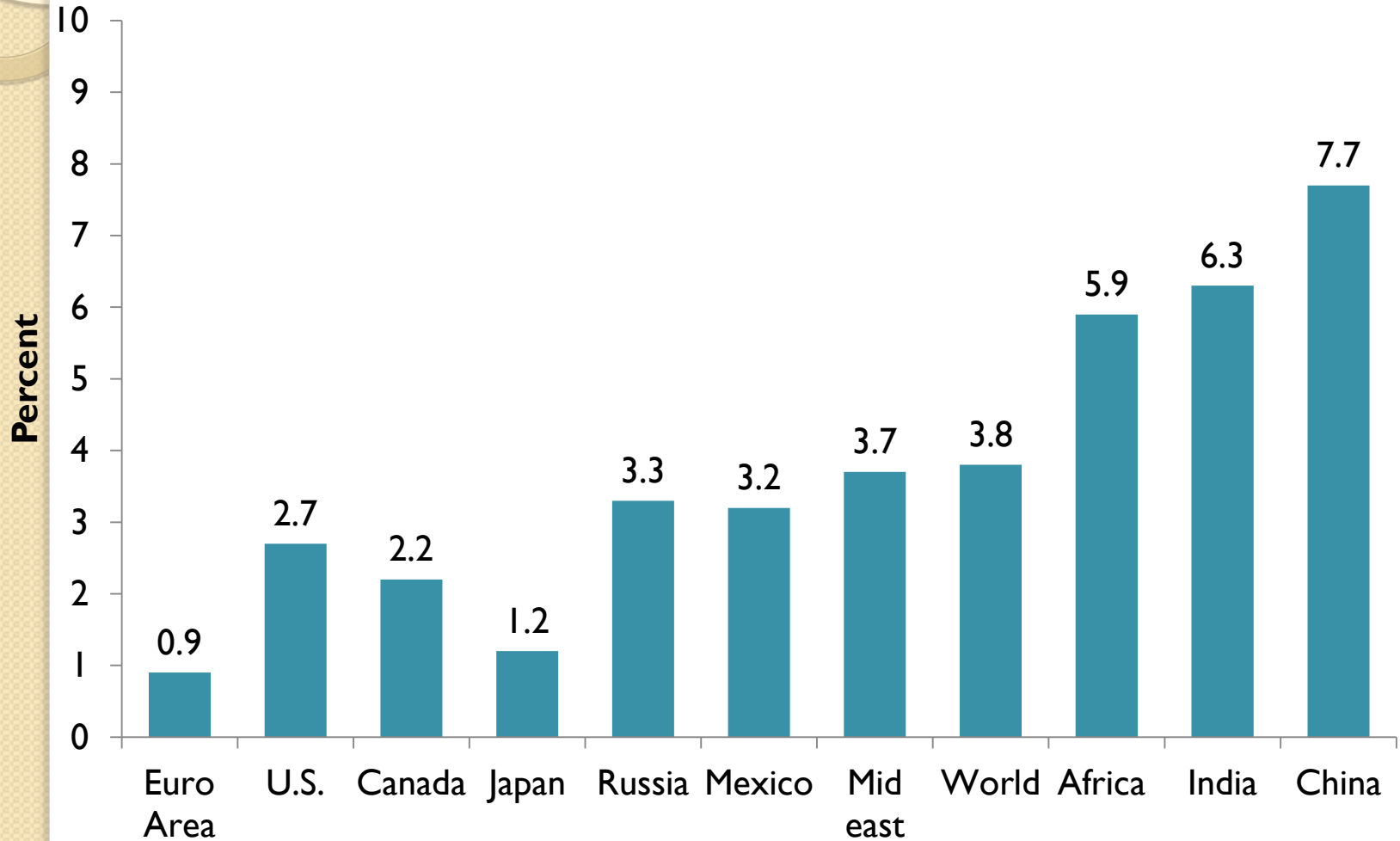
# The Business Climate

1. World Economic Growth
2. Global Land Expansion
3. Future Interest Rates
4. Farm Income



# World Economic Growth

# 2014 Real Economic Growth Rates Projections %, IMF

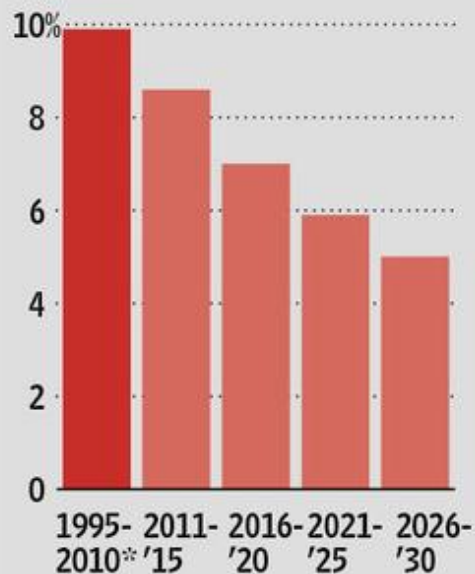


# Growth in China?

- World Bank and Chinese think tank report “China 2030” said economy bound to slow down between 2011 and 2030 to average growth rate of **6.6%** compared to an average of **10%** in previous 30 years
- By 2025, growth would decline to an annual average of **5%**

## Recipe for Beijing | Ideas as economy slows

Projection of China's GDP growth



Some 'China 2030' suggestions

- **Let** professional asset managers run state-owned firms as commercial ventures
- **Break up** state monopolies in some 'strategic' sectors.
- **Make** the People's Bank of China 'autonomous.'
- **Create** several world-class research universities.
- **Confine** the agency now regulating state-owned firms to policy-making and oversight.

\*Actual growth rate

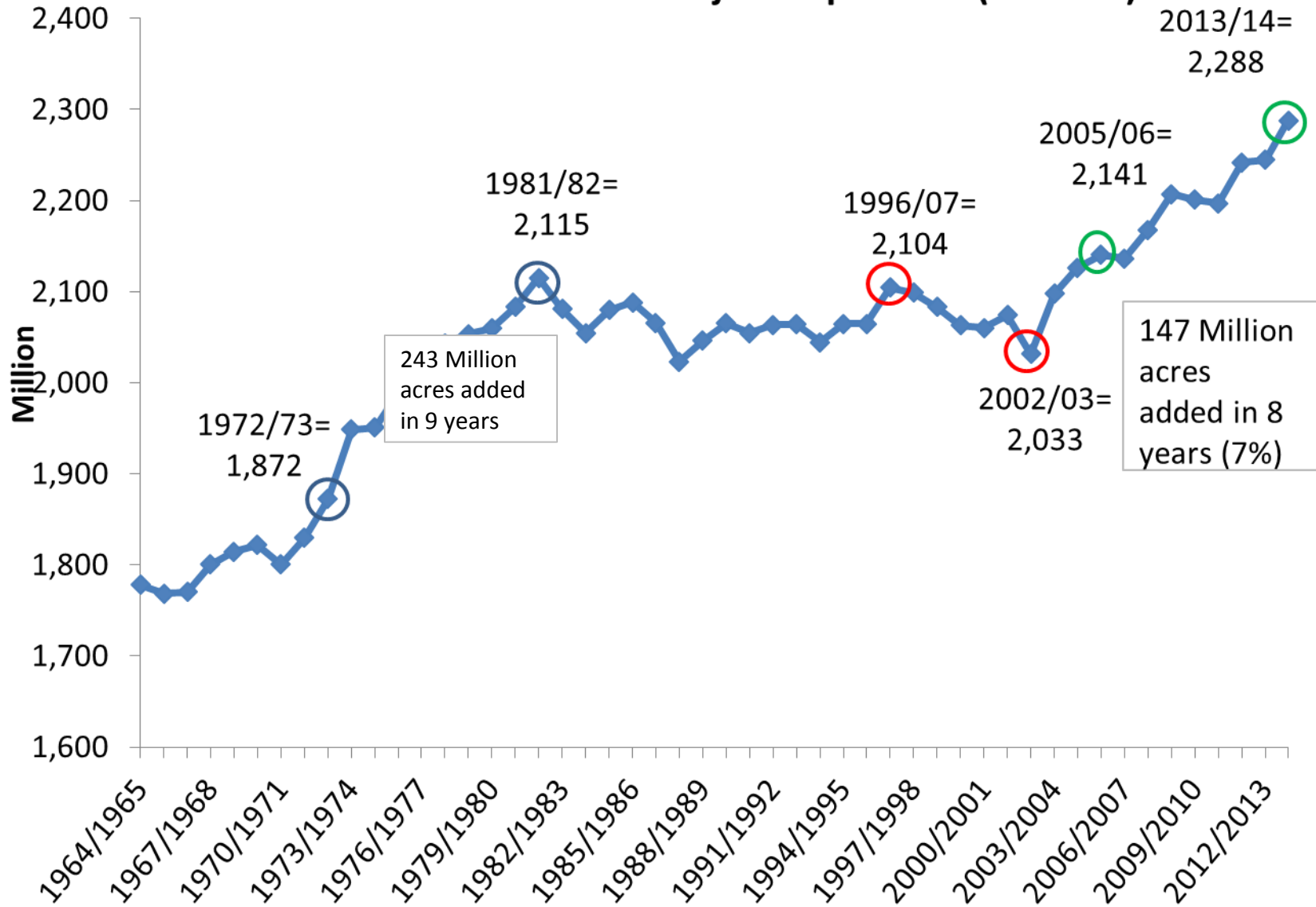
Source: World Bank, Development Research Center

The Wall Street Journal

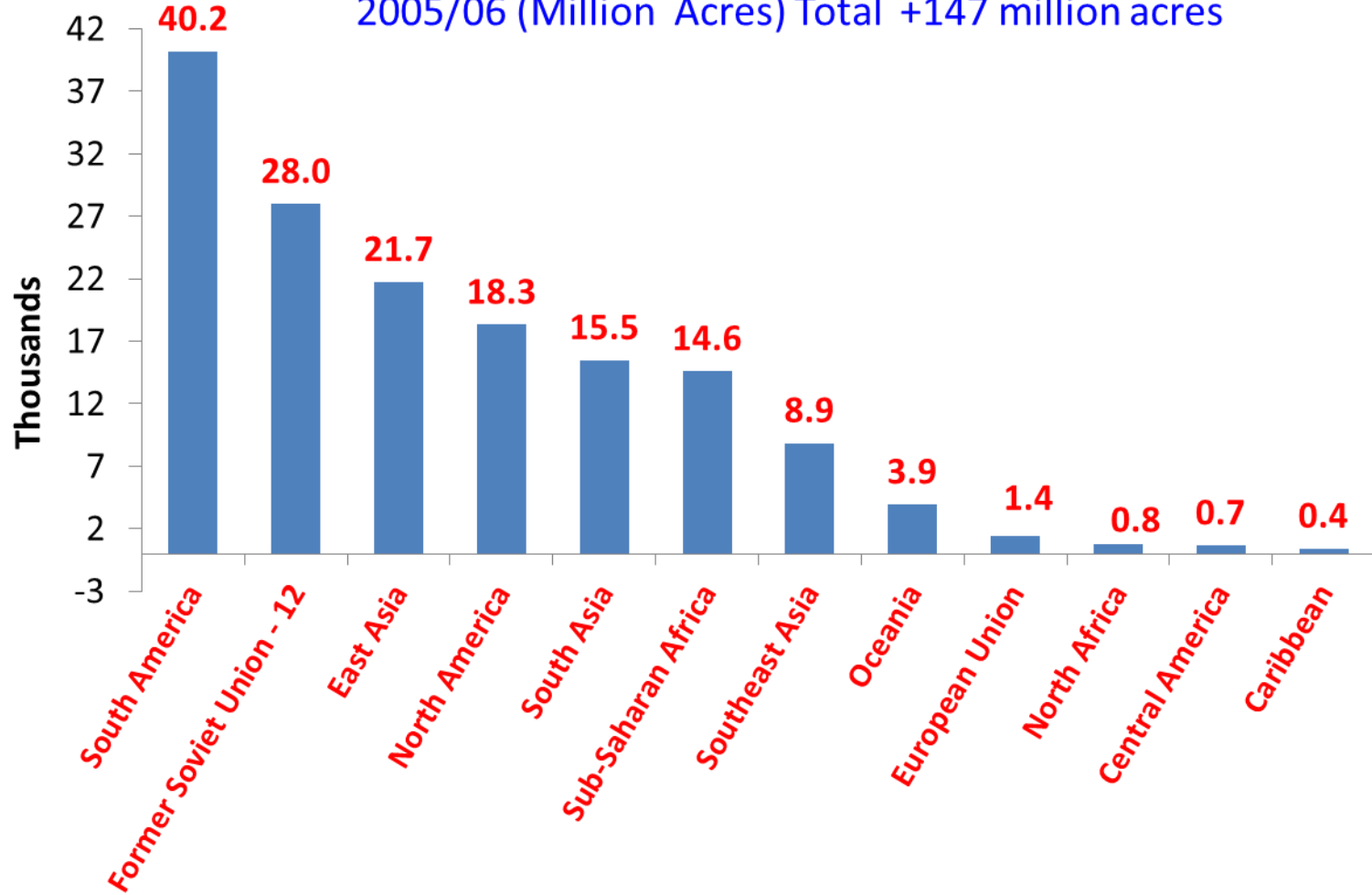


# Global Land Expansion

## World Harvested ACRES 13 Major Crops Total: (Millions)



Change in Area Harvested in 13 major World crops 2013/14 vs. 2005/06 (Million Acres) Total +147 million acres

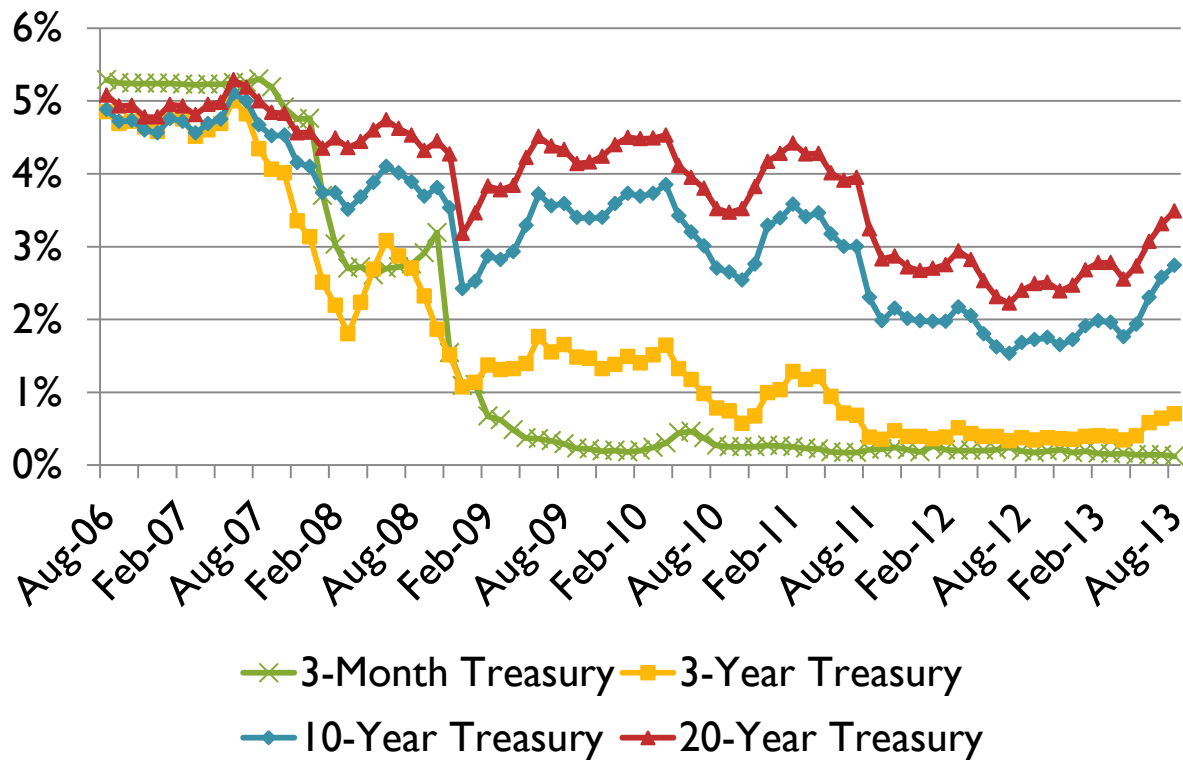




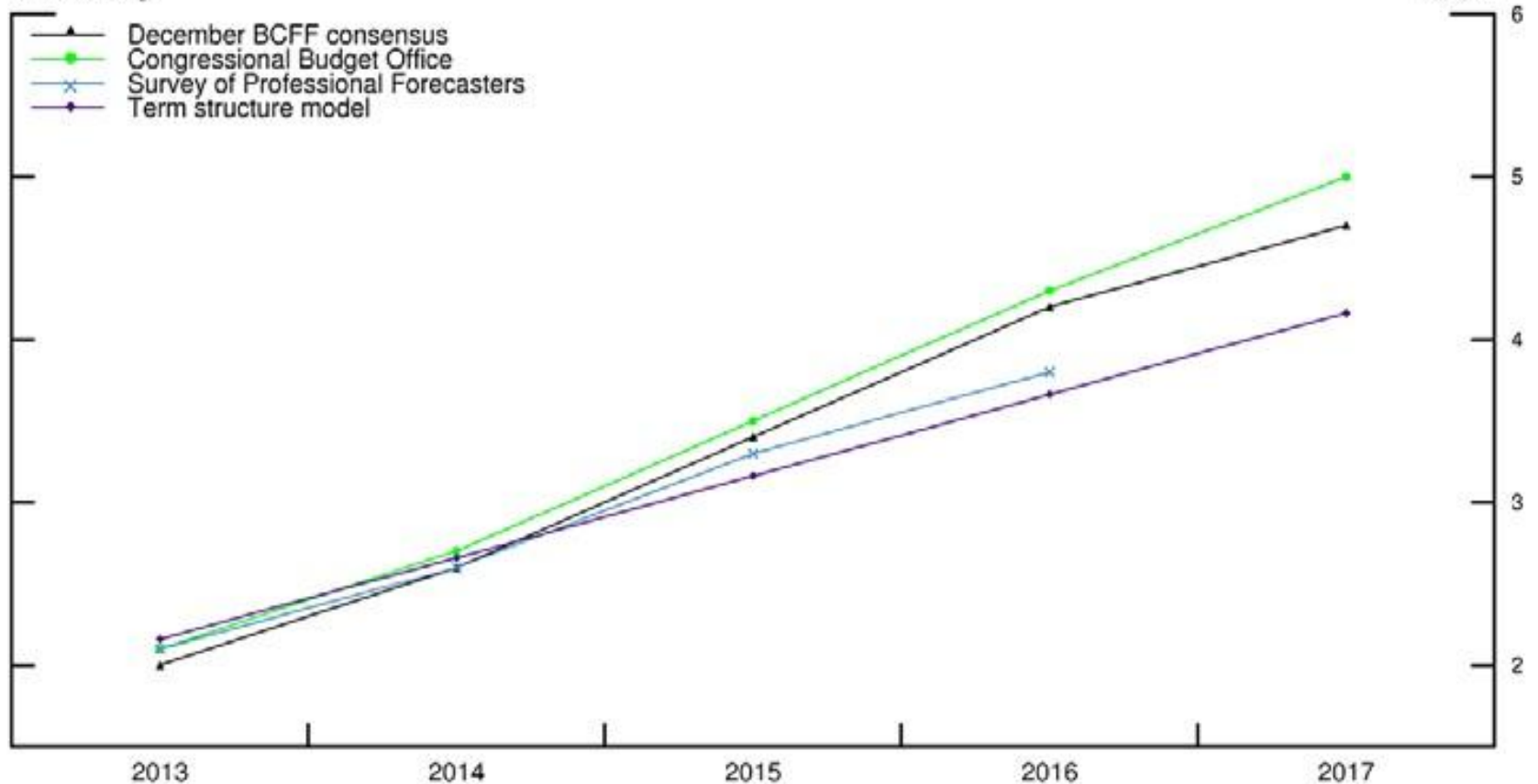


# Future Interest Rates

# 3 Month, 3 Year, 10 Year, 20 Year Treasury Rates



Annual average



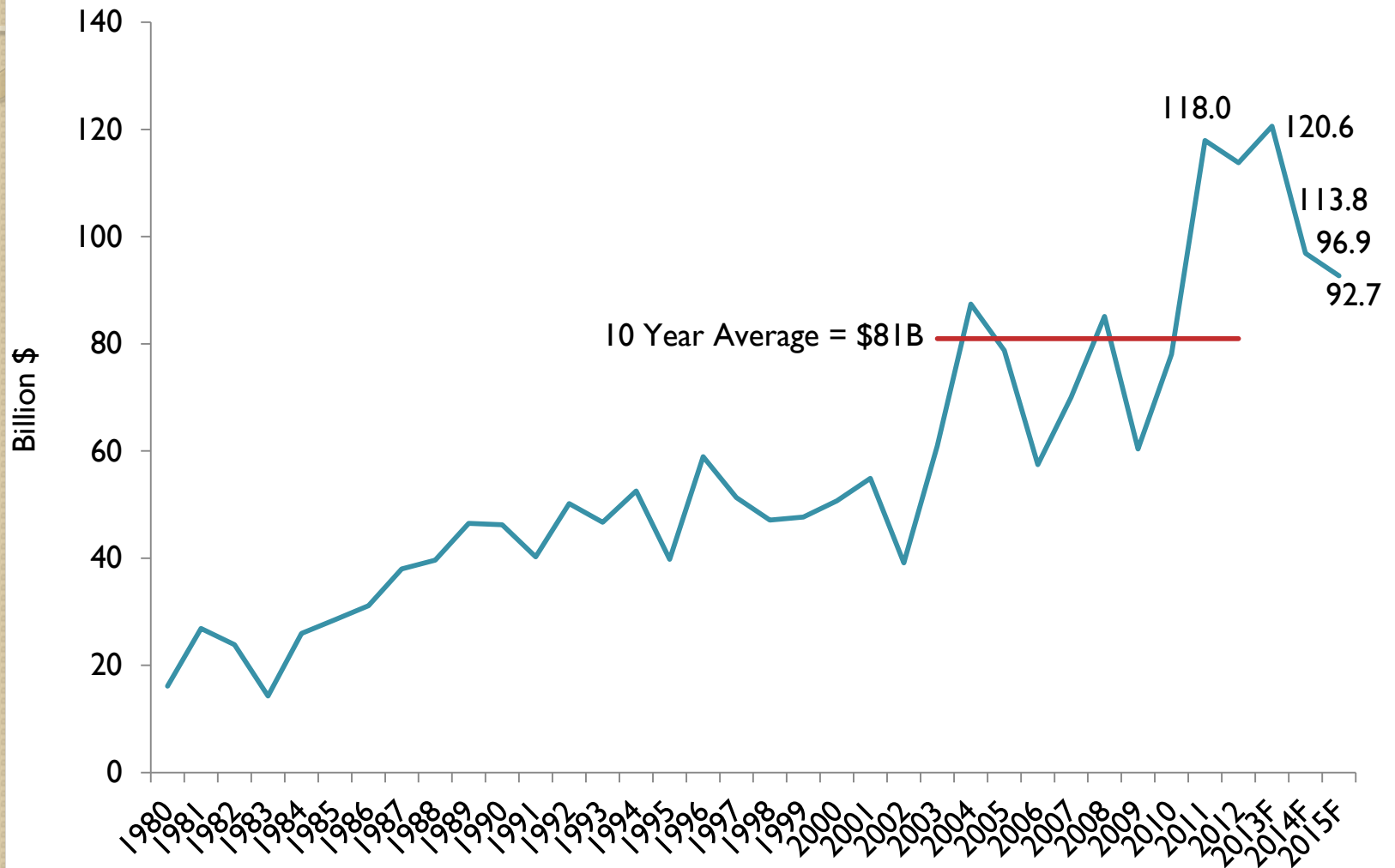
Note: The term structure model forecast assumes that the expected real rate and term premium components of the 10-year nominal yield as shown in chart 2 revert to their respective pre-crisis means over a 5-year period while the expected inflation component remains constant at the level at the end of 2012.

Source: For December BCFF consensus, Blue Chip Financial Forecasts (BCFF) survey, December 2012; for Congressional Budget Office, Congressional Budget Office (2013), *The Budget and Economic Outlook: Fiscal Years 2013 to 2023* (Washington: CBO), February 5; for Survey of Professional Forecasters, Survey of Professional Forecasters for 2013:Q1.



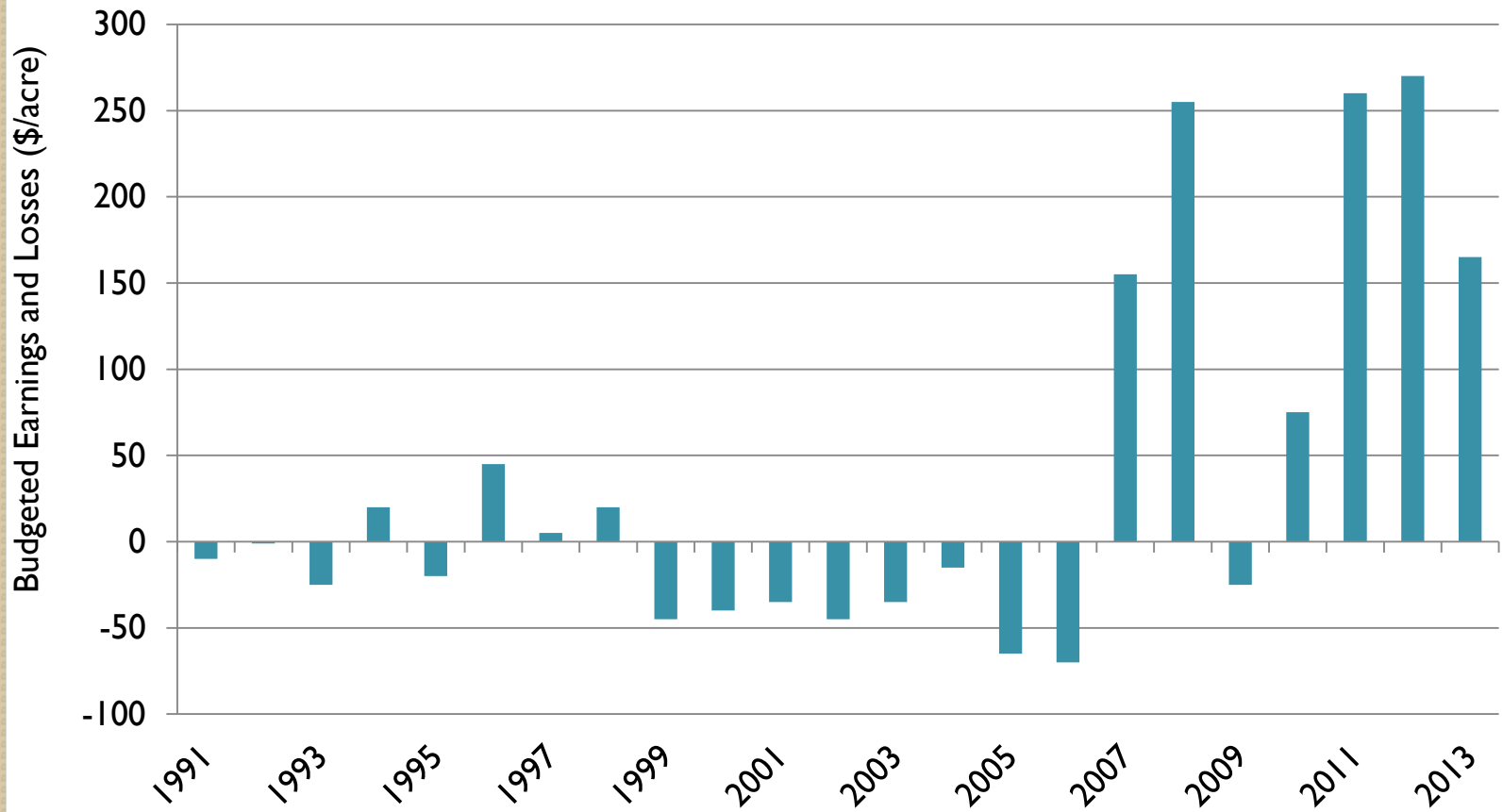
# Farm Income

# US Net Farm Income



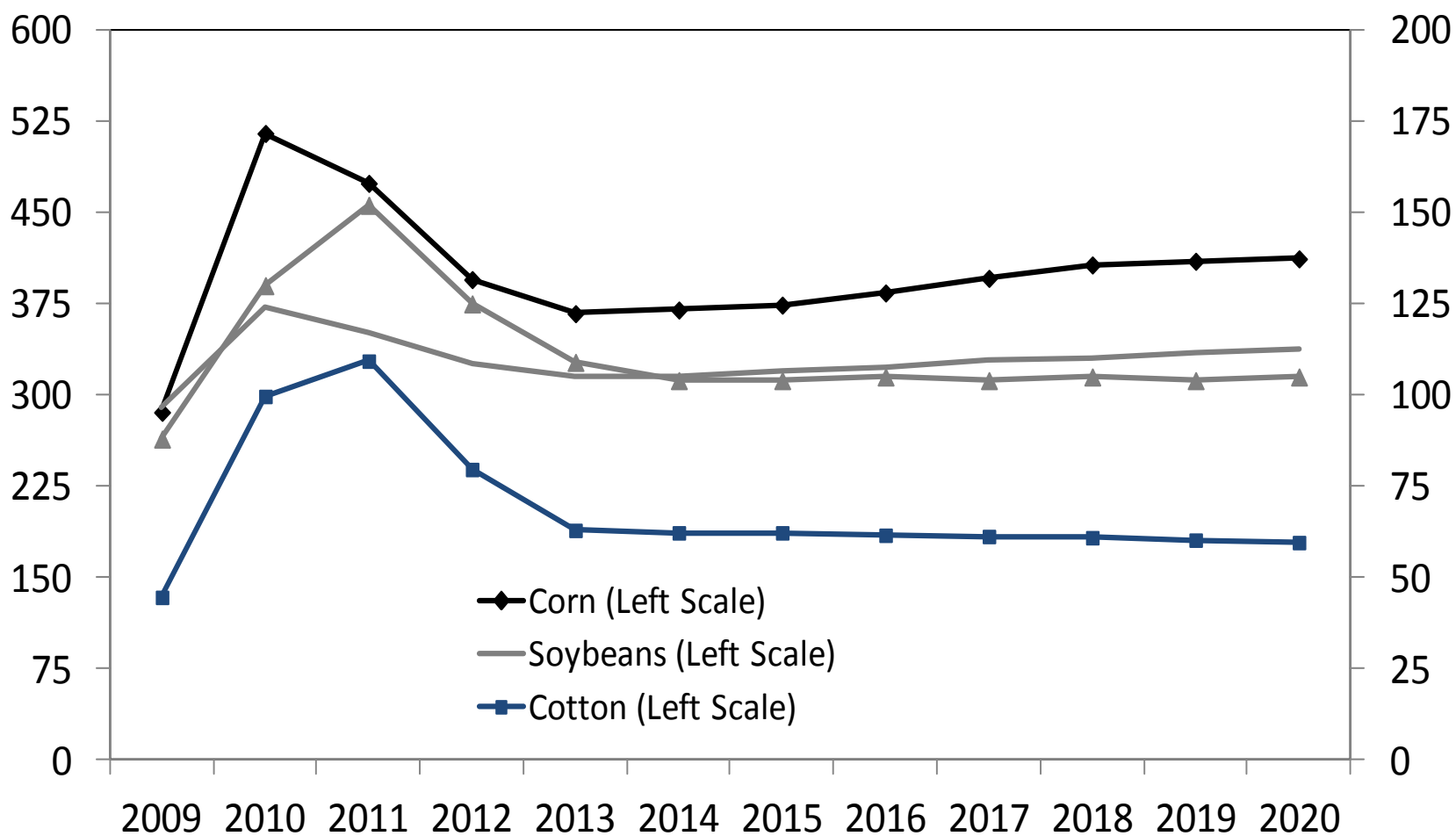
# Farm Profits Soar

Budgeted Profit and Loss for High Quality Indiana Farmland, 1991-2013



# Net Crop Returns over Variable Costs

Dollars per acre



Source: USDA

# Vulnerabilities to Continued Prosperity

- Margin compression
- Weak Working capital positions
- Excess and/or poorly structured debt
- Asset value declines
- Availability of credit
- Increased tax burdens/reduced preferences



# Implications

- Income/asset value shocks
- Land prices and cost competitiveness

# Table 4. Comparison of Farm Size with 50% Land Owned and 25% Debt-to-Asset Ratio

	Size of Farm (acres)		
	550	1200	2500
Annual Net Farm Income (Mean)	\$49,800	\$37,600	\$166,200
Change in Net Worth (3 year) – (Mean)	\$36,800	\$114,900	\$926,900
Working Capital/Value of Farm Production			
Mean	33.0%	45.5%	49.5%
Percent < 35%	57.0%	3.9%	0.1%
Debt-to-Asset Ratio			
Mean	21.5%	15.8%	13.0%
Percent > 55%	0.0%	0.0%	0.0%
Term Debt Coverage Ratio			
Mean	0.9	1.2	1.5
Percent < 1.1	73.1%	23.9%	2.1%
Percent Positive Cash	24.6%	83.8%	98.4%
Percent ROE > 10%	0.4%	7.6%	20.1%

## Table 5. Comparison of Land Tenure for 550 Acre Farms with 25% Debt-to-Asset Ratio

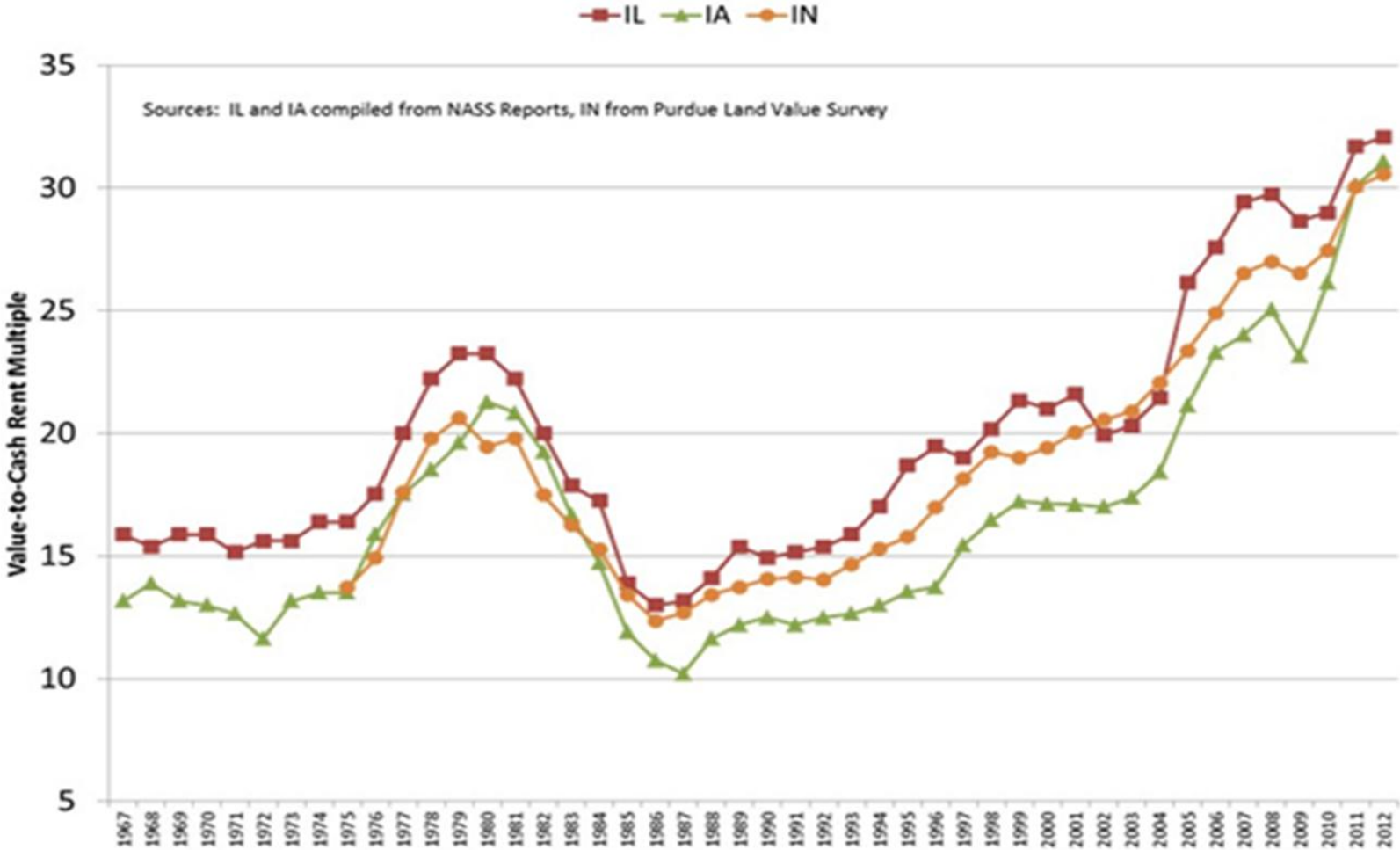
Table 5. Comparison of Land Tenure for 550 Acre Farms with 25% Debt-to-Asset Ratio	% of Land Owned		
	85%	50%	15%
Annual Net Farm Income (Mean)	\$98,900	\$49,800	-\$2,100
Change in Net Worth (3 year) (Mean)	\$76,000	-\$32,300	-\$130,400
Working Capital/Value Of Farm Production			
<i>Mean</i>	49.6%	32.9%	17.3%
<i>Percent &lt; 35%</i>	9.2%	56.9%	99.5%
Debt to Asset Ratio			
<i>Mean</i>	17.1%	22.1%	32.6%
<i>Percent &gt; 55%</i>	0.0%	0.0%	0.0%
Term Debt Coverage Ratio			
<i>Mean</i>	1.7	0.9	0.6
<i>Percent &lt; 1.1</i>	16.2%	76.8%	99.5%
Percent Positive Cash	74.8%	24.3%	0.3%
Percent ROE > than 10%	11.7%	0.5%	0.1%

## Table 6. Comparison of Debt-to Asset Ratio for 2500 Acre Farms with 50% of Land Owned

	Debt-to-Asset Ratio	
	25%	50%
<b>Annual Net Farm Income (Mean)</b>	\$160,500	\$134,800
<b>Change In Net Worth (3 Year) (Mean)</b>	\$459,100	\$474,900
<b>Working Capital/Value of Farm Production</b>		
<i>Mean</i>	49.5%	30.1%
<i>Percent &lt; 35%</i>	0.1%	54.4%
<b>Debt-to-Asset Ratio</b>		
<i>Mean</i>	13.0%	35.6%
<i>Percent &gt; than 55%</i>	0.0%	0.0%
<b>Term Debt Coverage Ratio</b>		
<i>Mean</i>	1.5	1.1
<i>Percent &lt; 1.1</i>	2.6%	38.2%
<b>Percent Positive Cash</b>	98.1%	53.7%
<b>Percent ROE &gt; 10%</b>	21.1%	41.7%

# Land Values

Value-to-Cash Rent Multiple for IA, IL, IN Cropland, 1967-2012



# Per Bushel Costs at Differing Land Values and Land Return Percentages

180 bu/acre Yield		Return		
		4%	5%	6%
Land Value (\$/acre)	8,000	1.78	2.22	2.67
	10,000	2.22	2.78	3.33
	12,000	2.67	3.33	4.00
	15,000	3.33	4.17	5.00
200 bu/acre Yield		Return		
		4%	5%	6%
Land Value (\$/acre)	8,000	1.60	2.00	2.40
	10,000	2.00	2.50	3.00
	12,000	2.40	3.00	3.60
	15,000	3.00	3.75	4.50

# The “Bust” Sequence

1. Reduced working capital
  - lower incomes
  - large capital expenditures (land, machinery, facilities)
2. Restructure/refinance on appreciated assets to rebuild working capital
3. Low prices combined with high costs and cash rents (lag in adjustment) create operating losses and a second cycle of working capital shortages
4. Attempt to refinance again to pay down operating line or rebuild working capital

## The “Bust” Sequence (con’t.)

5. Lender balks at second refinance or asset values are soft
6. Land/capital assets are sold to cover cash flow shortages and pay down or restructure debt
7. Excess asset sales flood a thin market that has little appetite for risky assets at premium prices
8. Asset values decline further feeding additional financial stress and further liquidations



# **Eight Strategies for Managing in this Environment**

1. Lock in Margins
2. Buy Crop Insurance
3. Consider Fixing some Interest Rates
4. De-leverage – Pay Down Debt
5. Hold Financial Reserves
6. Conservative Bidding/Buying
7. Slow Growth/Fund with Equity
8. Make Investments in Operational Excellence

# What to Watch: Uncertainties Impacting Agriculture

1. The sluggishness of the recovery of the U.S. economy
2. The financial crisis in Europe and the E.U.
3. The unpredictable future growth of income in China and Asia more broadly
4. The changing (recently rising) value of the dollar
5. The global grain supply/demand balance
6. The increased in tillable land in the world
7. Uncertainty about changes in farm policy

# What to Watch: Uncertainties Impacting Agriculture (con't.)

8. Current and future regulations on production systems (animal welfare, fertilizer/chemical use, etc.)
9. The timing and amount of future changes in interest rates
10. Fluctuations in fertilizer, seed, chemical and energy prices
11. The prospects of a continued boom and potential bust in farm incomes and land values.
12. The 2050 food security challenge

# **Taleb – Black Swan**

Can't Accurately Predict, So  
Position for the Uncertainty