

farmdocDAILY LIVE | Coronavirus and Ag

Impacts of Covid-19 on Agricultural Assets and Lending Markets

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Center for
Farmland Research

*Advancing Farmland Markets through
Research and Information*



Bruce J. Sherrick, Ph.D.

Director, TIAA Center for Farmland Research
Fruin Professor of Farmland Economics
University of Illinois

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Jackson Takach, CFA

Chief Economist and Head of Strategy,
Research, and Analytics
Federal Agricultural Mortgage Corporation

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Poll: How much refinancing do you think will be needed this spring on crop farms?

- ☐ None
- ☐ Not much
- ☐ Some for vulnerable farms
- ☐ Much more than anticipated



Impacts of COVID-19 on Agricultural Assets and Lending Markets

April 10, 2020

FARMER  **MAC**

Jackson Takach
Chief Economist



Highlights

- Slower Spread in Ag States

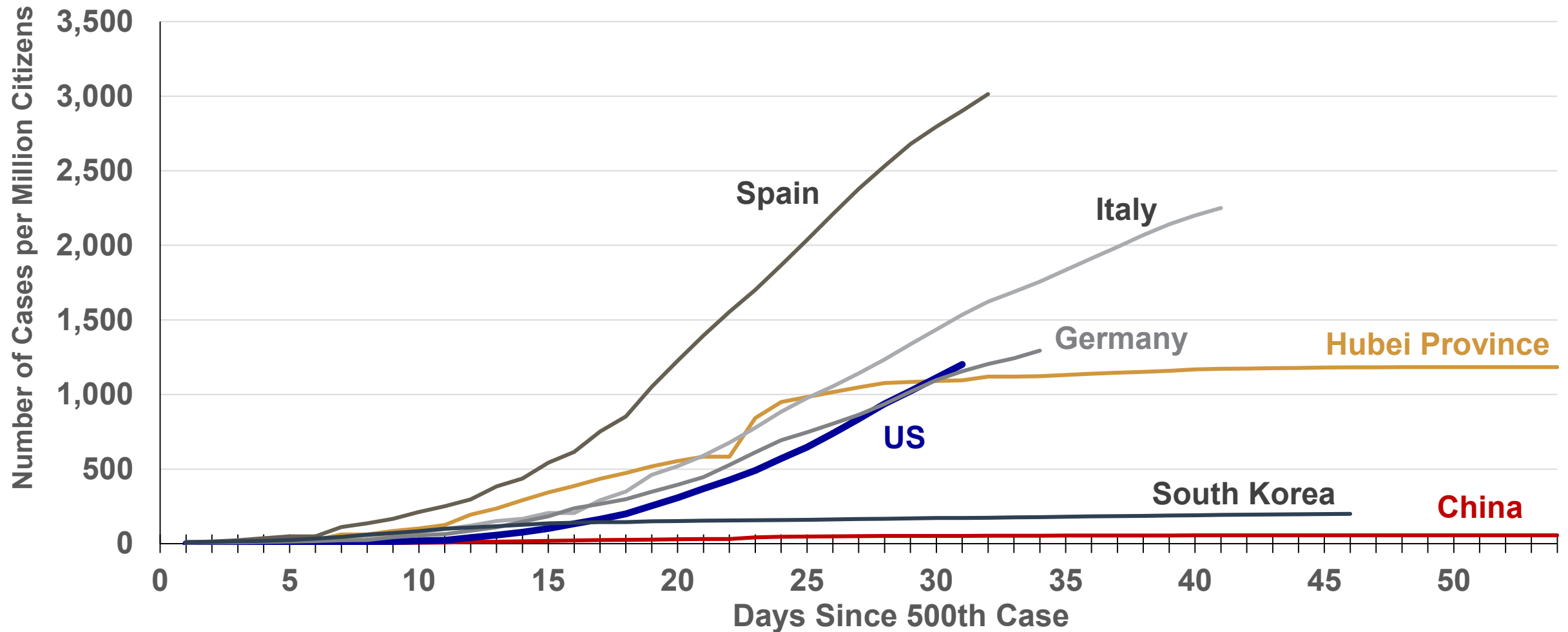
Longer Event Horizon

Knock On Effects First, Direct Effects Coming

Impacts on Lenders

Government Support

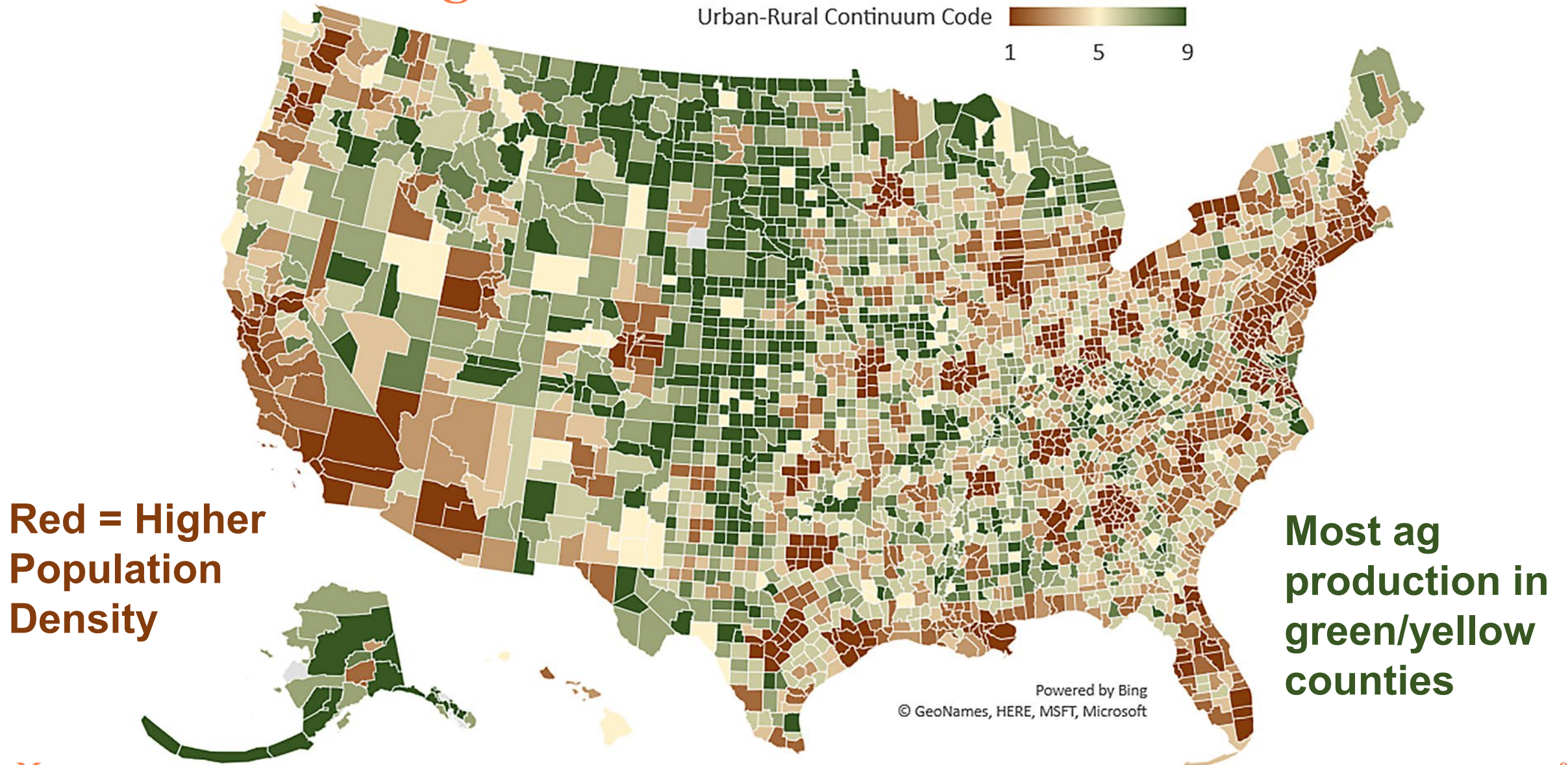
U.S. COVID-19 Emergence Compared to Global COVID-19 Cases Per Million Since 500th Case



Source: Johns Hopkins University, Coronavirus Resource Center

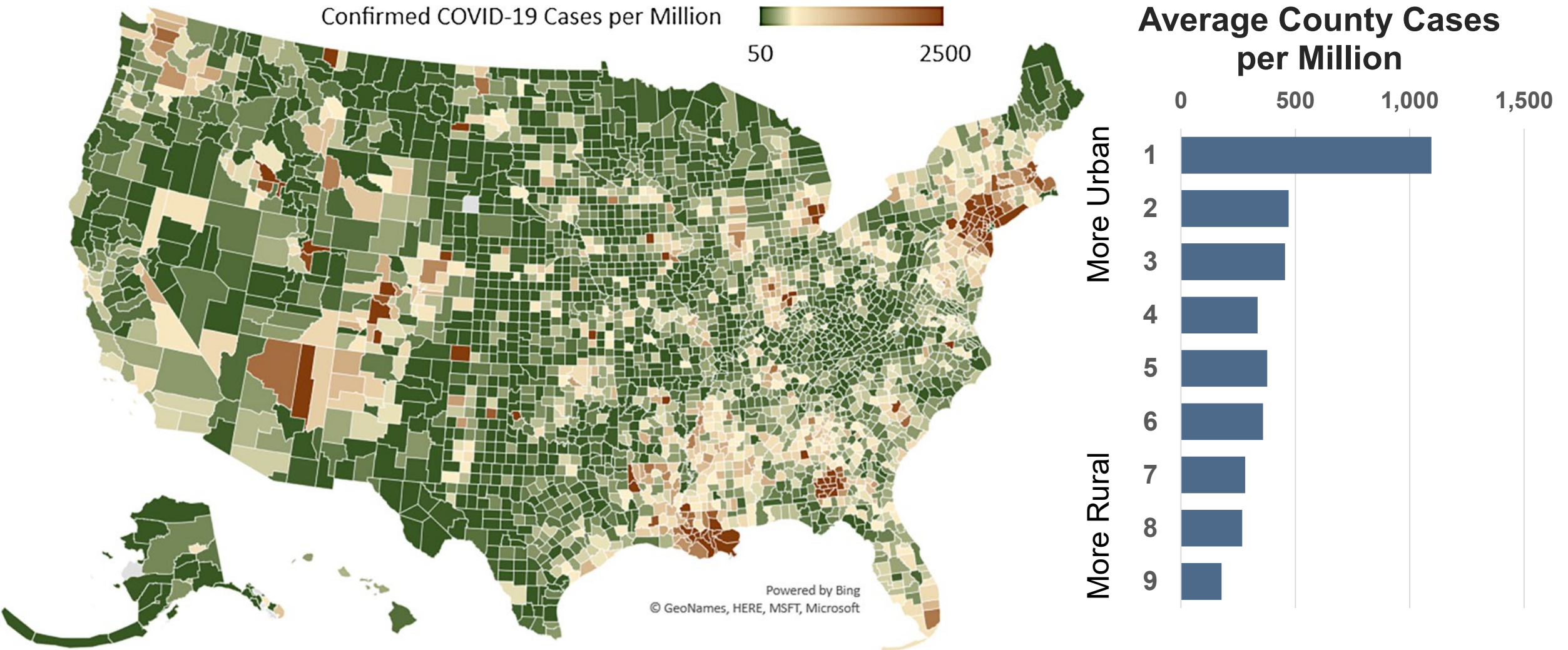


COVID-19 Emergence in Rural Counties



Source: USDA County Urban-Rural Continuum

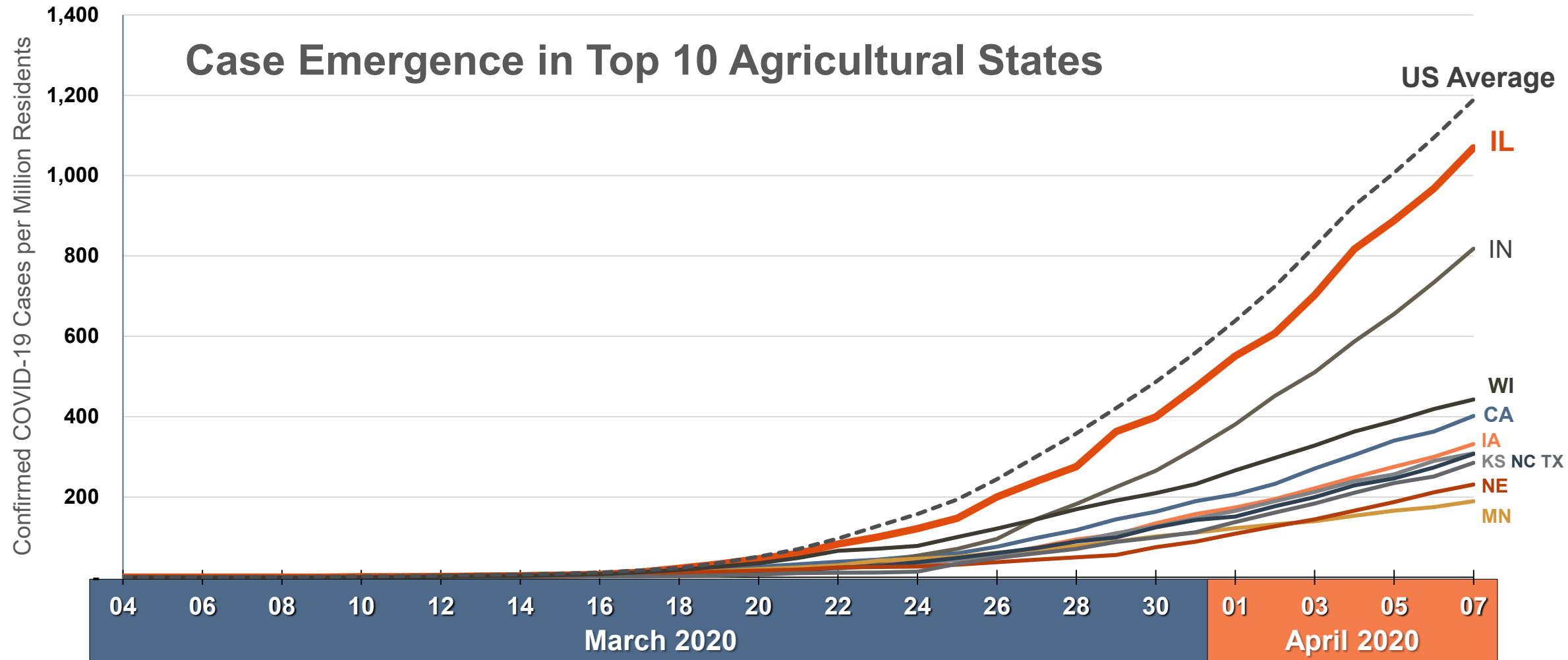
COVID-19 Emergence in Rural Counties is Significantly Lower



Source: Johns Hopkins University, Coronavirus Resource Center



COVID-19 Emergence in Agricultural States is Lower than U.S. Avg

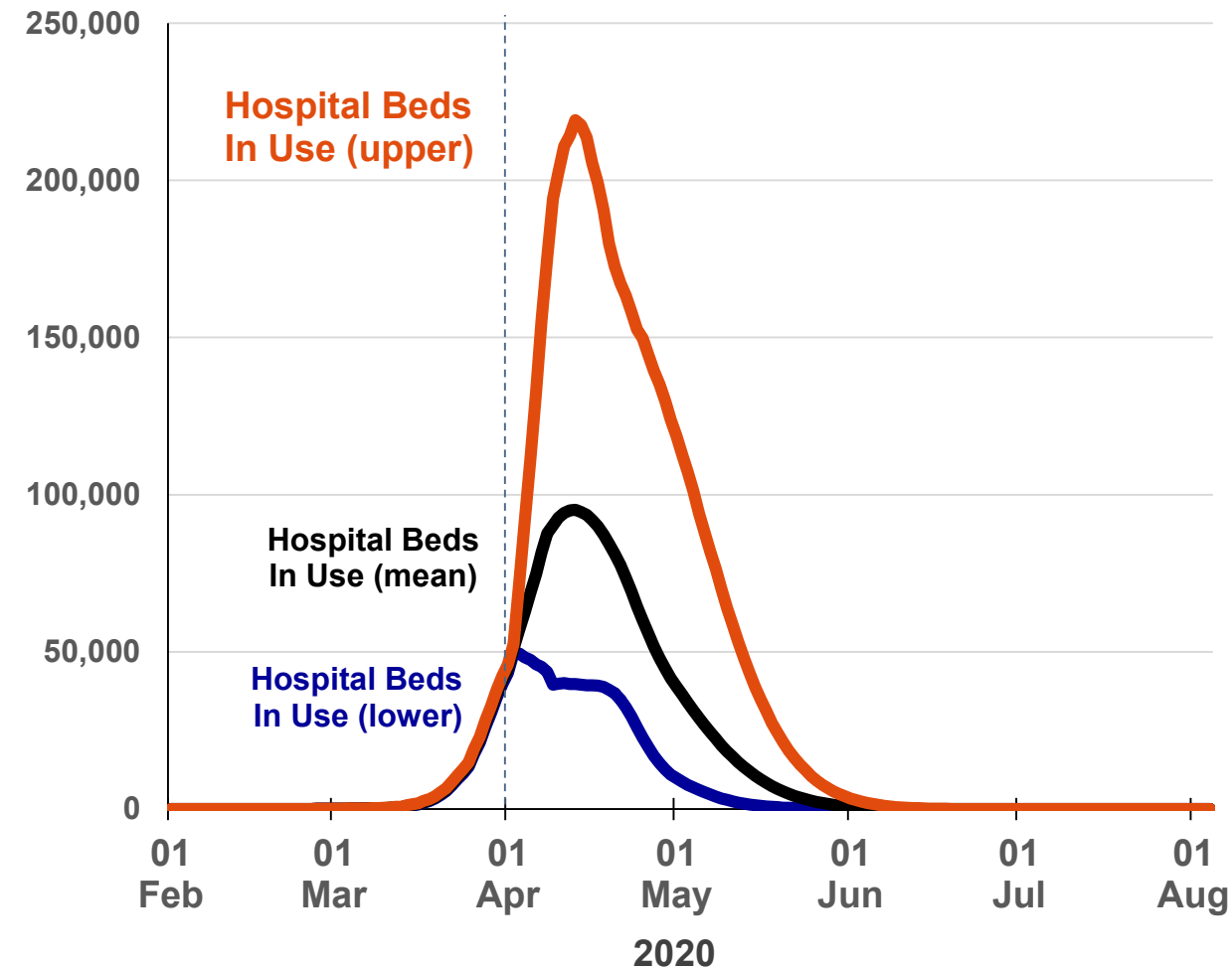


Source: Johns Hopkins University, Coronavirus Resource Center

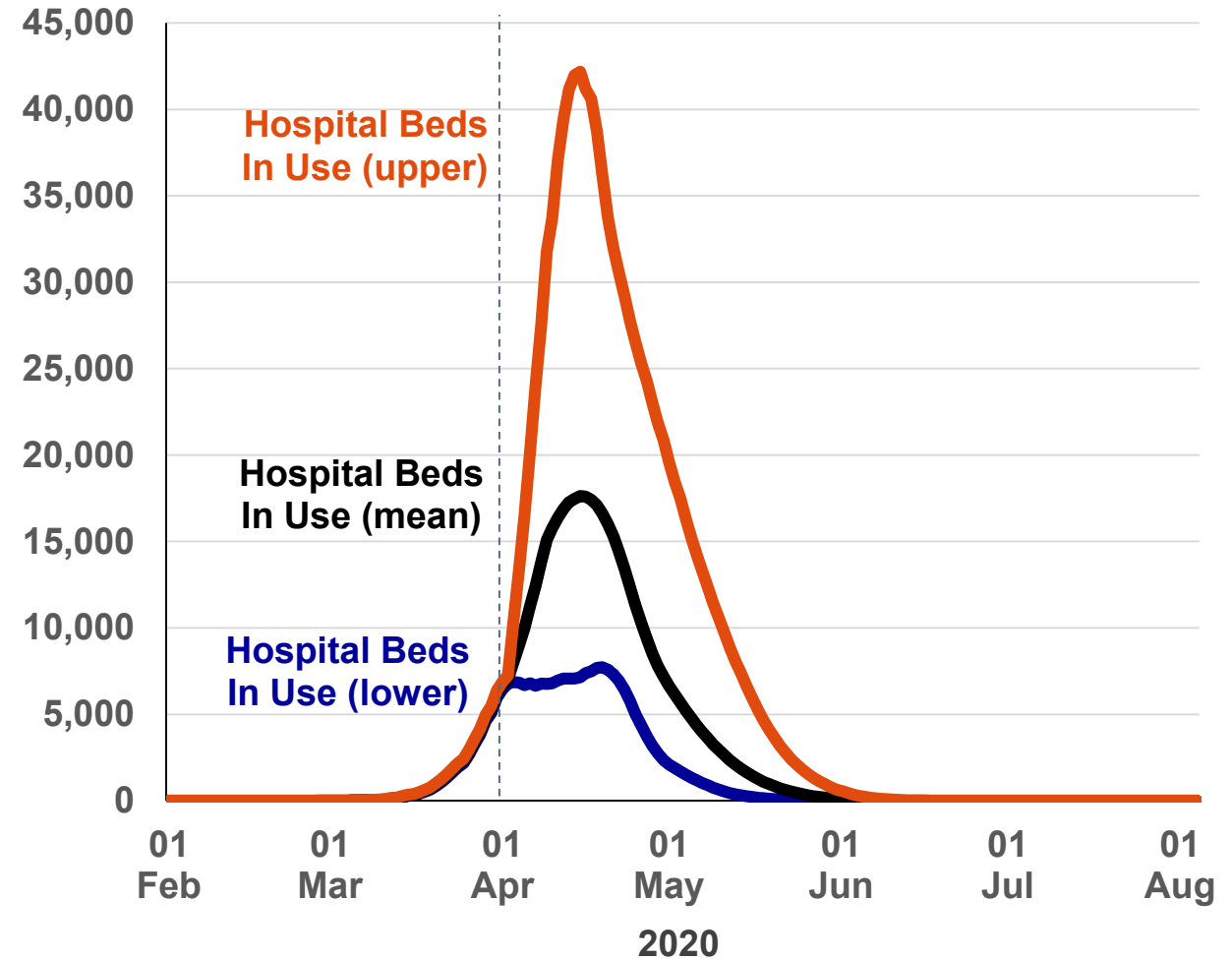


However – Slower Emergence = Longer Life

Hospital Beds in Use: U.S. Total



Hospital Beds in Use: Ag State Total



Second Derivatives of COVID: Knock On Effects

Gasoline

China
Phase 1 (?)

Lower
Global
Growth

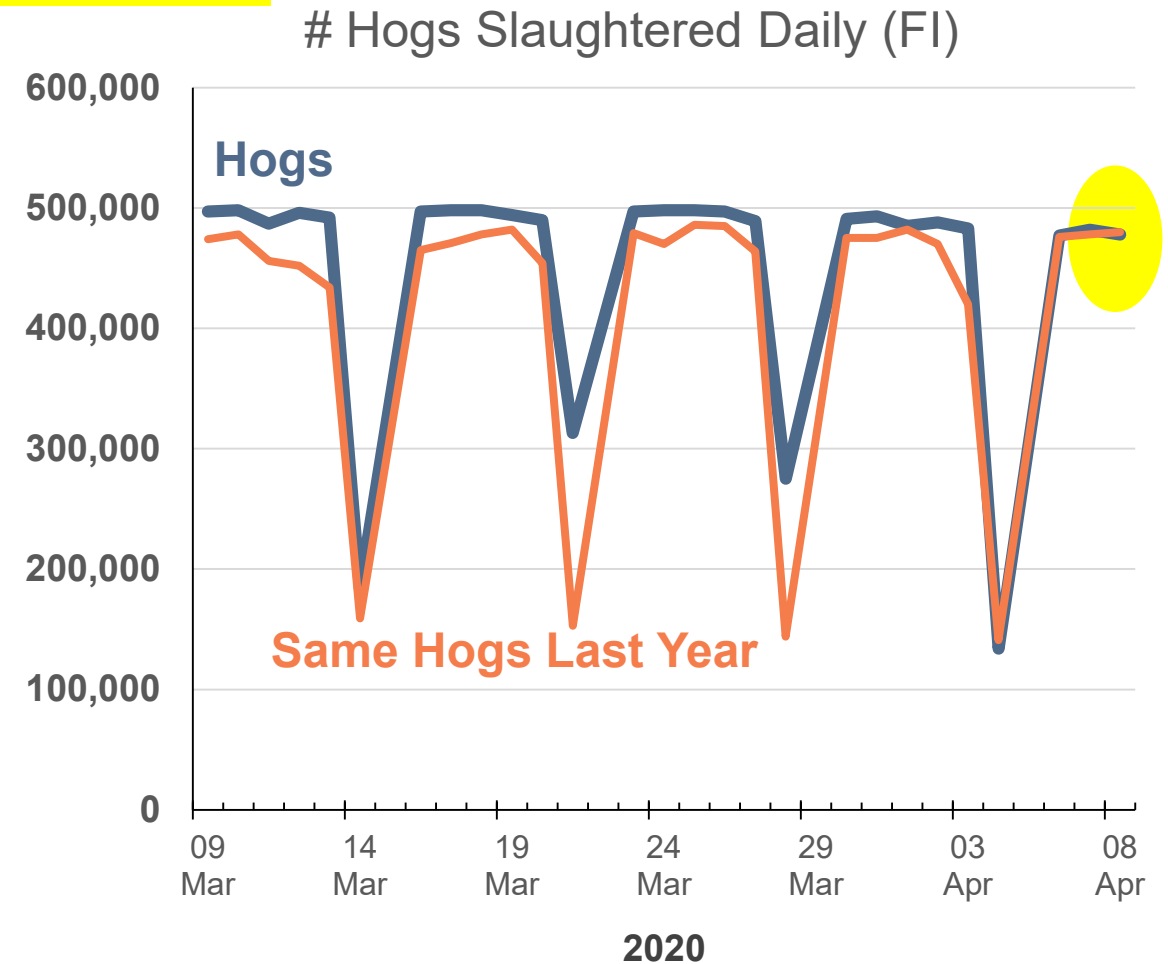
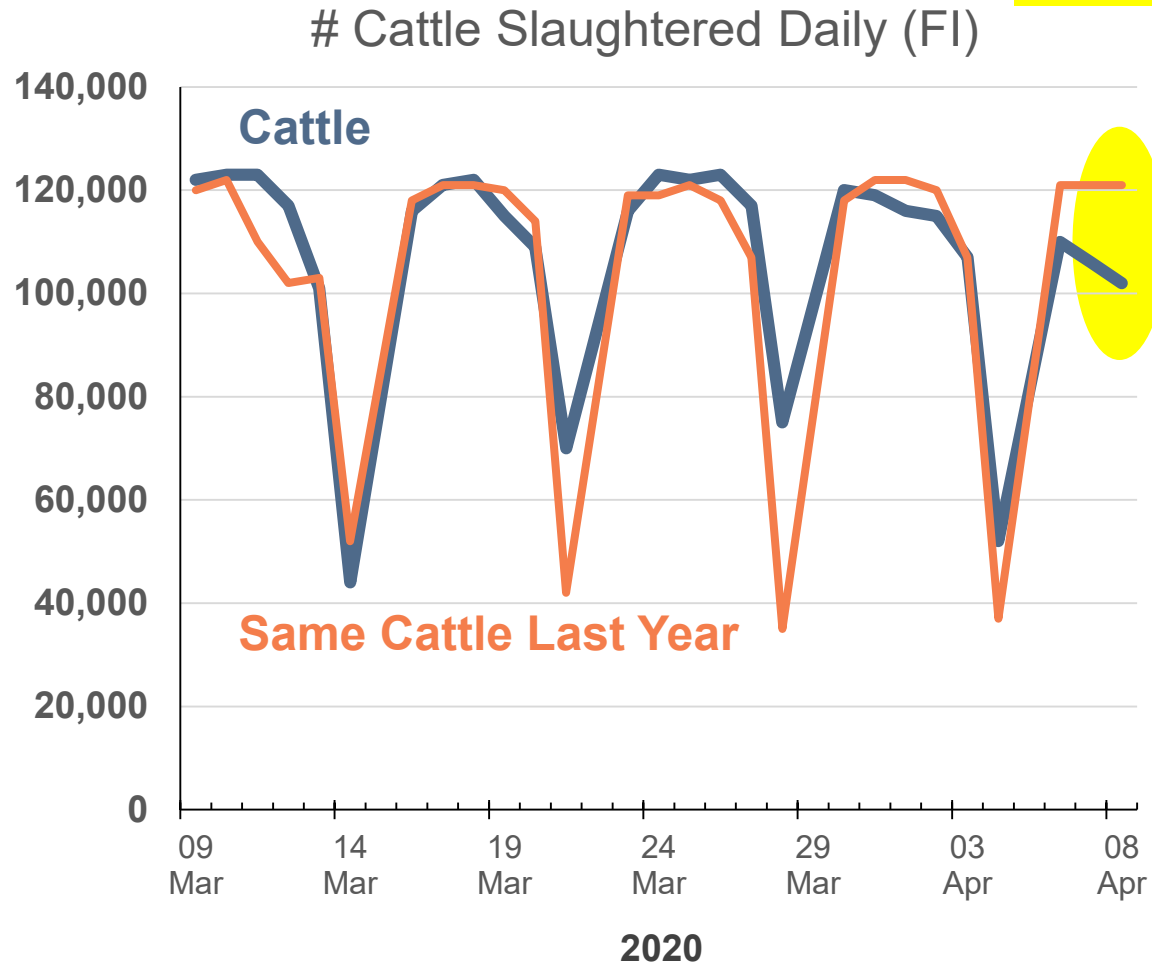
Restaurants
and Schools

U.S. Dollar
Rally

Flight to
Quality

First Derivative: Direct Effects of COVID-19 on Packers

Multiple Plants Shut
Down from Illnesses



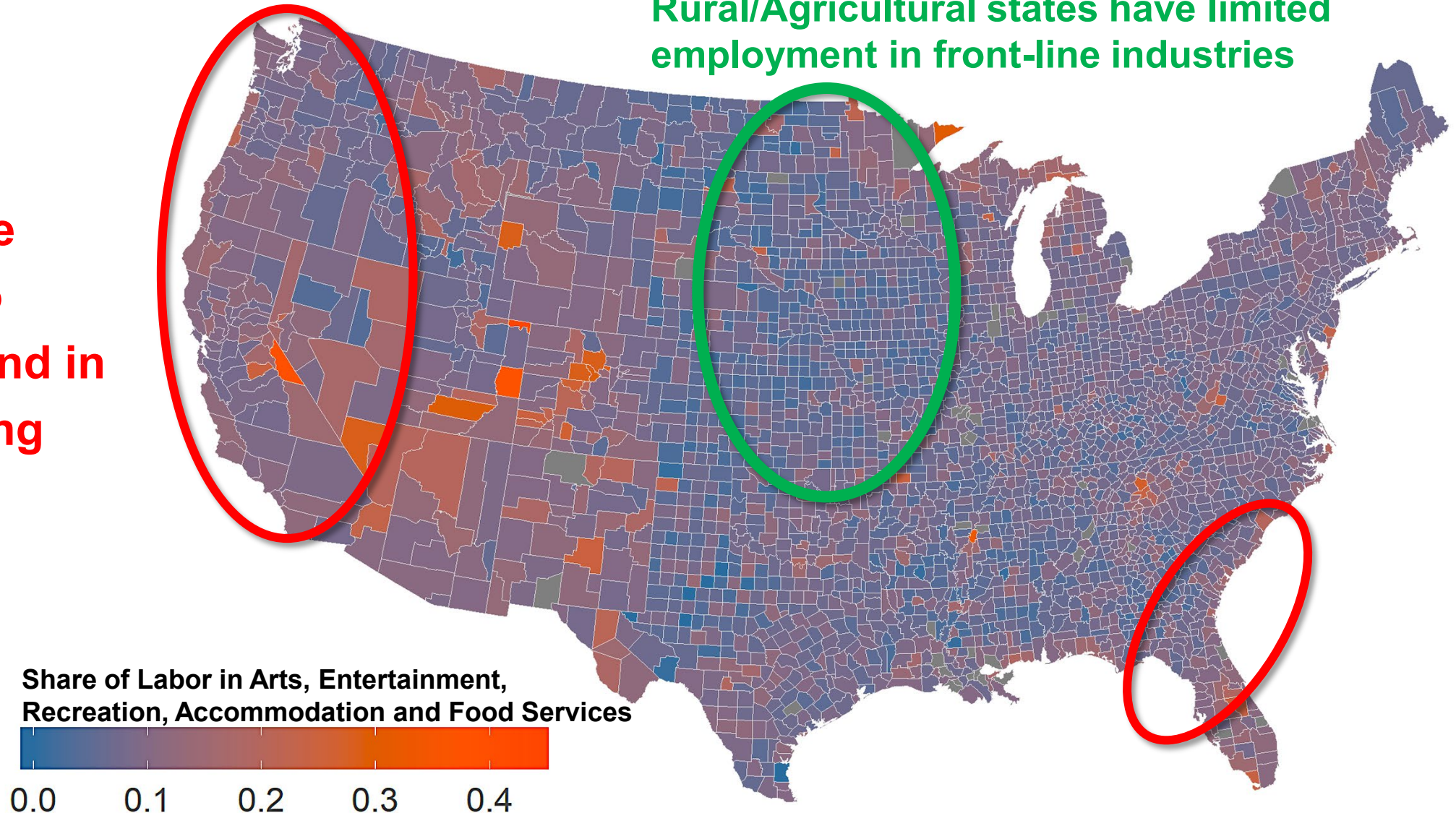
Source: USDA, AMS Daily Estimated Slaughter Reports



Off-Farm Income and Unemployment in Rural America

More
exposure
closer to
coasts and in
urbanizing
areas

Rural/Agricultural states have limited
employment in front-line industries

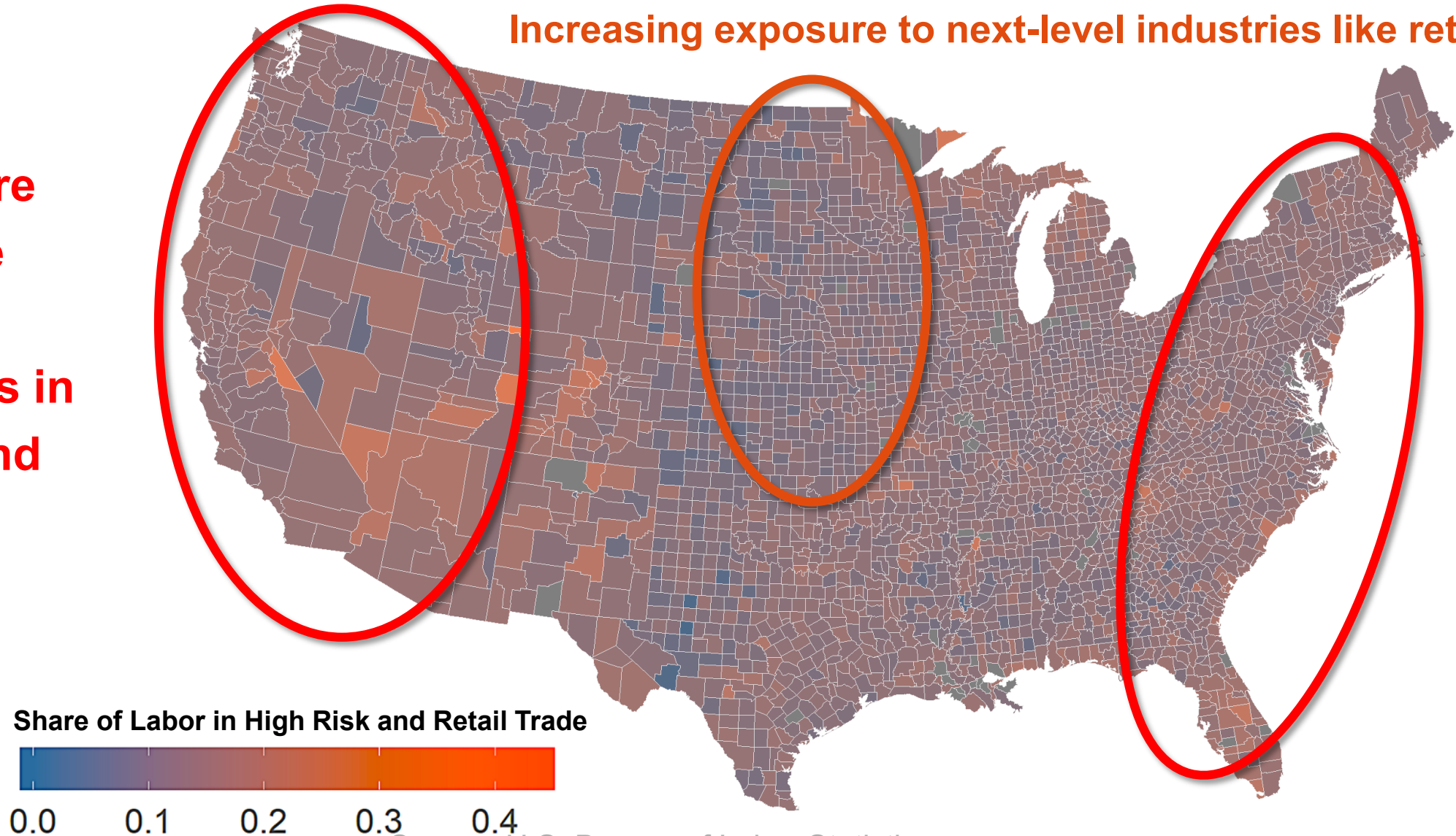


Source: U.S. Bureau of Labor Statistics

Off-Farm Income and Unemployment in Rural America

Even more exposure to at-risk industries in coasts and southern states.

Increasing exposure to next-level industries like retail.

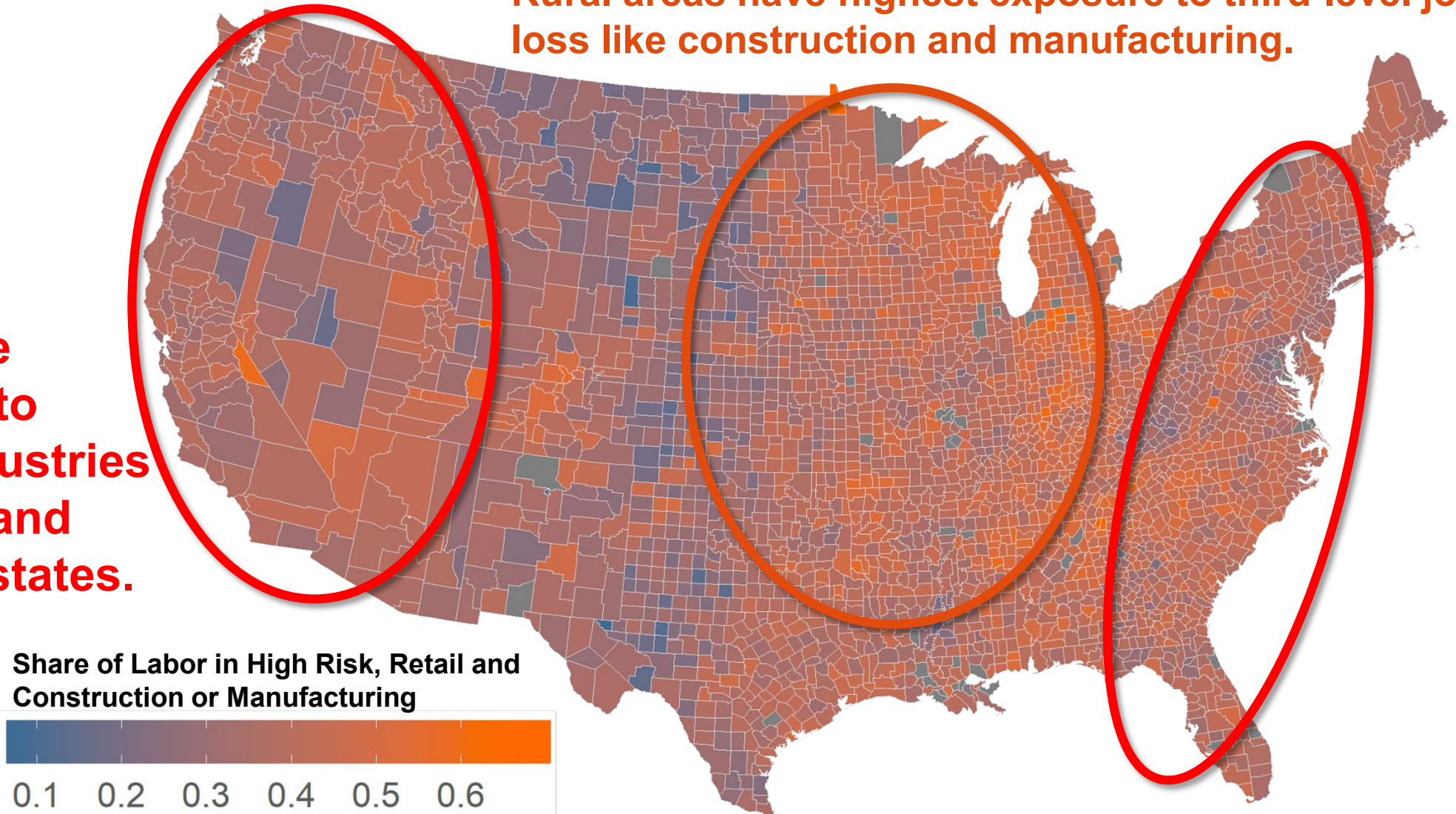


Source: U.S. Bureau of Labor Statistics

Off-Farm Income and Unemployment in Rural America

Rural areas have highest exposure to third-level job loss like construction and manufacturing.

Even more exposure to at-risk industries in coasts and southern states.



Source: U.S. Bureau of Labor Statistics

Tale of Two Cities for Ag Lenders

On the one hand...

10 Year US Treasury Rate



On the other hand...

Baa Credit Spread to 10 Year US Treasury



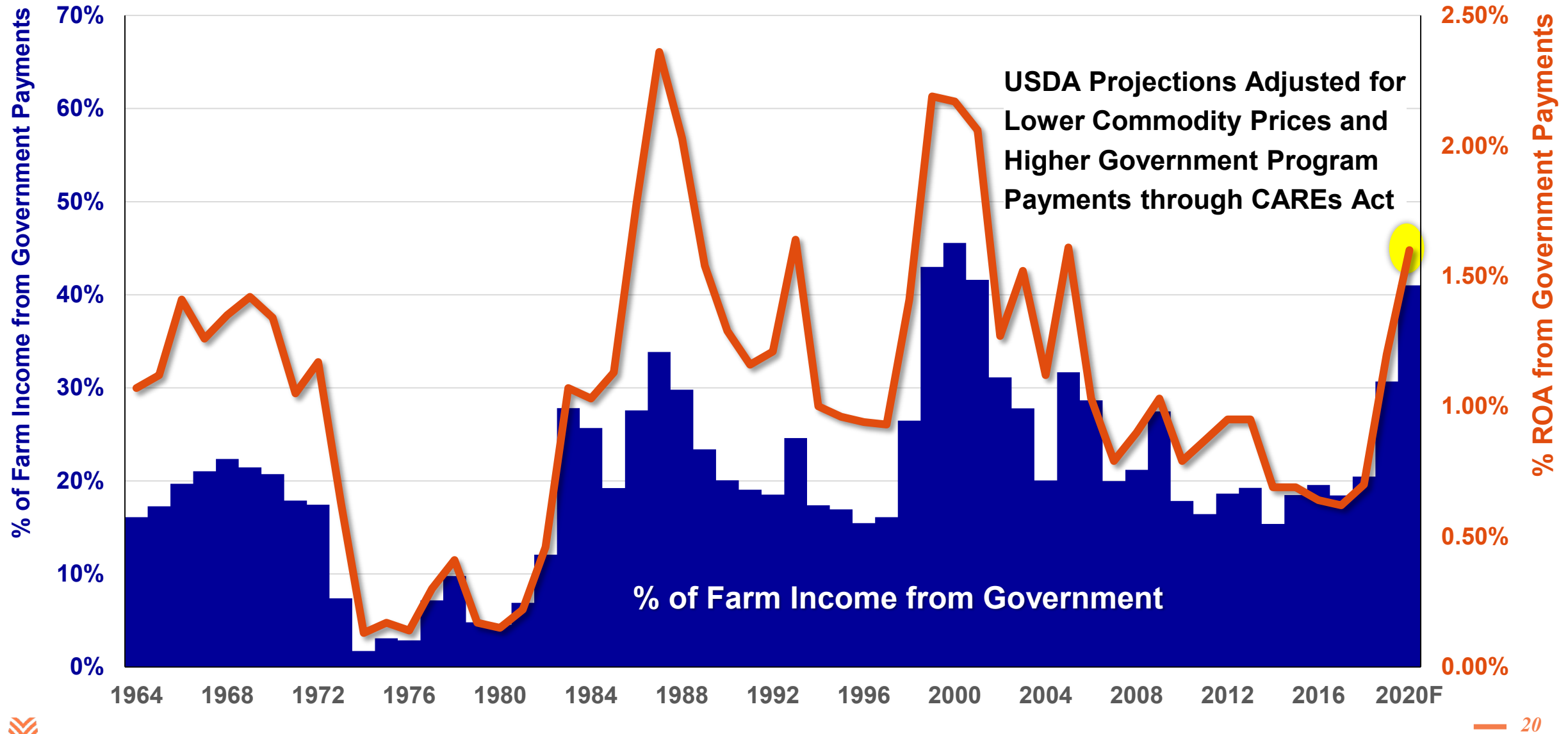
Lots of Demands on Banks

Mortgage
servicing
advances due

SBA loan
program
delivery

C&I book

Government Supportive of Farmers and Ranchers



In Summary

- Commodity prices under pressure and no immediate fix
- At-home food demand strong; exports and away from home food may lag
- Off-farm income disruption

Income Pressure



- Many demands on lender financing and capital
- Rates are lower but not the same as UST
- Deals are getting done despite some infrastructure disruptions

Lenders Adjusting



- CAREs Act replenishes CCC and authorizes other direct dollars
- PLC and insurance products likely to pay
- Will support lost income, may not replace

Government Support Cont.





Thank You

Jackson Takach, CFA

Chief Economist

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Poll: What are your expectations of farmland prices at the end of 2020?

- Significant declines
- Small declines
- No change in farmland prices
- Small increases
- Significant increases



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Possible Impacts on Farmland Markets

- Covid-19 uncertainty in equity markets, some investors seek safety in ag assets.
- Trade uncertainties, commodity demand shrinking/changing. Uncertain income.
- Interest rates declining, credit spreads widening, cap rate normalization - seeking yield (*is a 3% return high or low?*)
- Farm Policy prospects in election year/crisis mode likely to be generous
- Crop Insurance PPs above market, acreage decisions affected, partial support
- Consumer-driven issues increasingly impactful, but currently on a delay loop – what would it take for food supply interruption? How will consumers alter future consumption? How would that affect farmland markets?

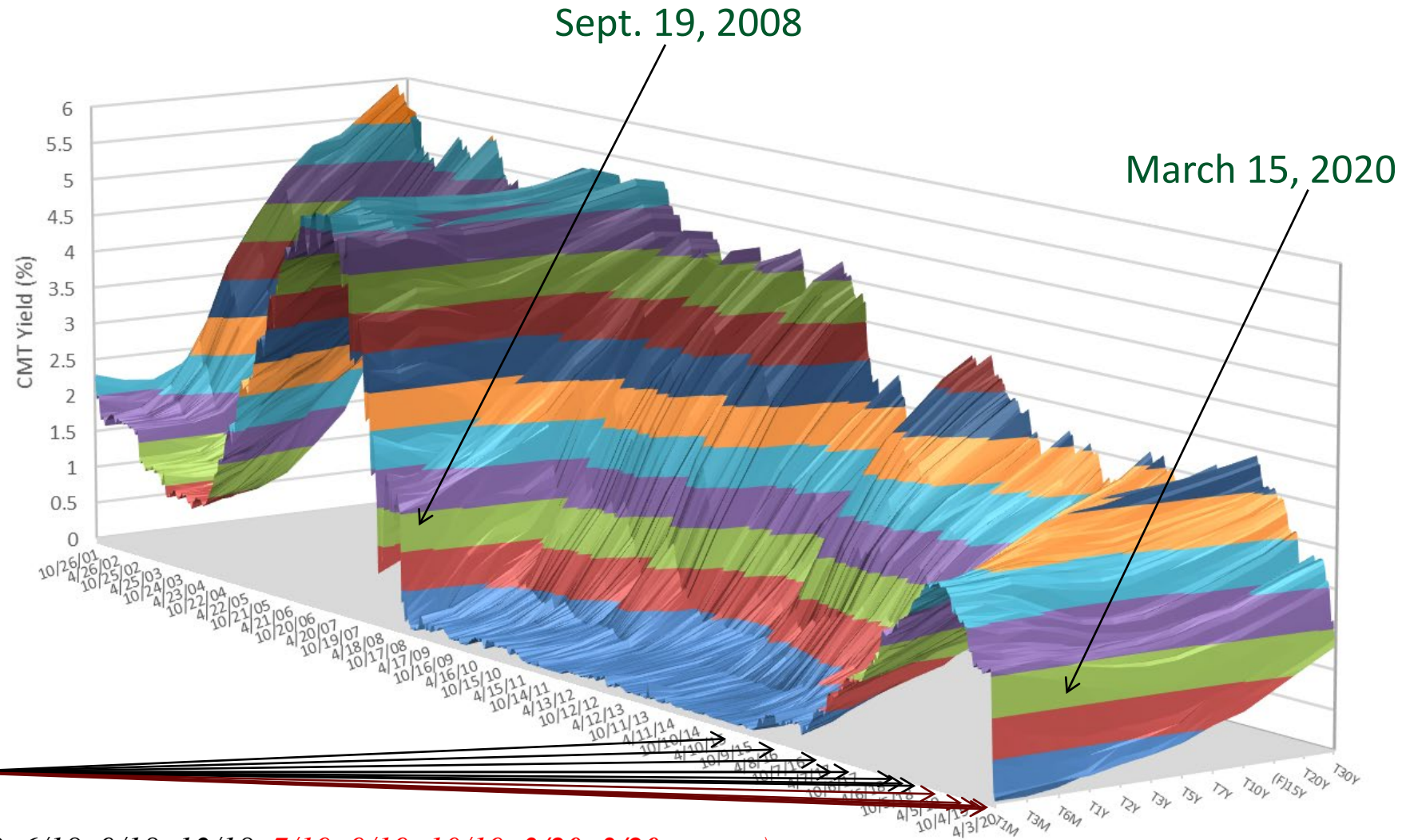
2020 Crop Insurance Prices and Volatilities

Table 1. Projected Prices, Harvest Prices, and Volatilities, Corn and Soybeans, SCD 3/15 (RMA)

Corn	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Proj Price	6.01	5.68	5.65	4.62	4.15	3.86	3.96	3.96	4.00	3.88
Harvest Price	6.32	7.50	4.39	3.49	3.83	3.49	3.49	3.68	3.90	?
Volatility	0.29	0.22	0.20	0.19	0.21	0.17	0.19	0.15	0.15	0.15
Soybeans										
Proj Price	13.49	12.55	12.87	11.36	9.73	8.85	10.19	10.16	9.54	9.17
Harvest Price	12.14	15.39	12.87	9.65	8.91	9.75	9.75	8.60	9.25	?
Volatility	0.23	0.18	0.17	0.13	0.16	0.12	0.16	0.14	0.12	0.12

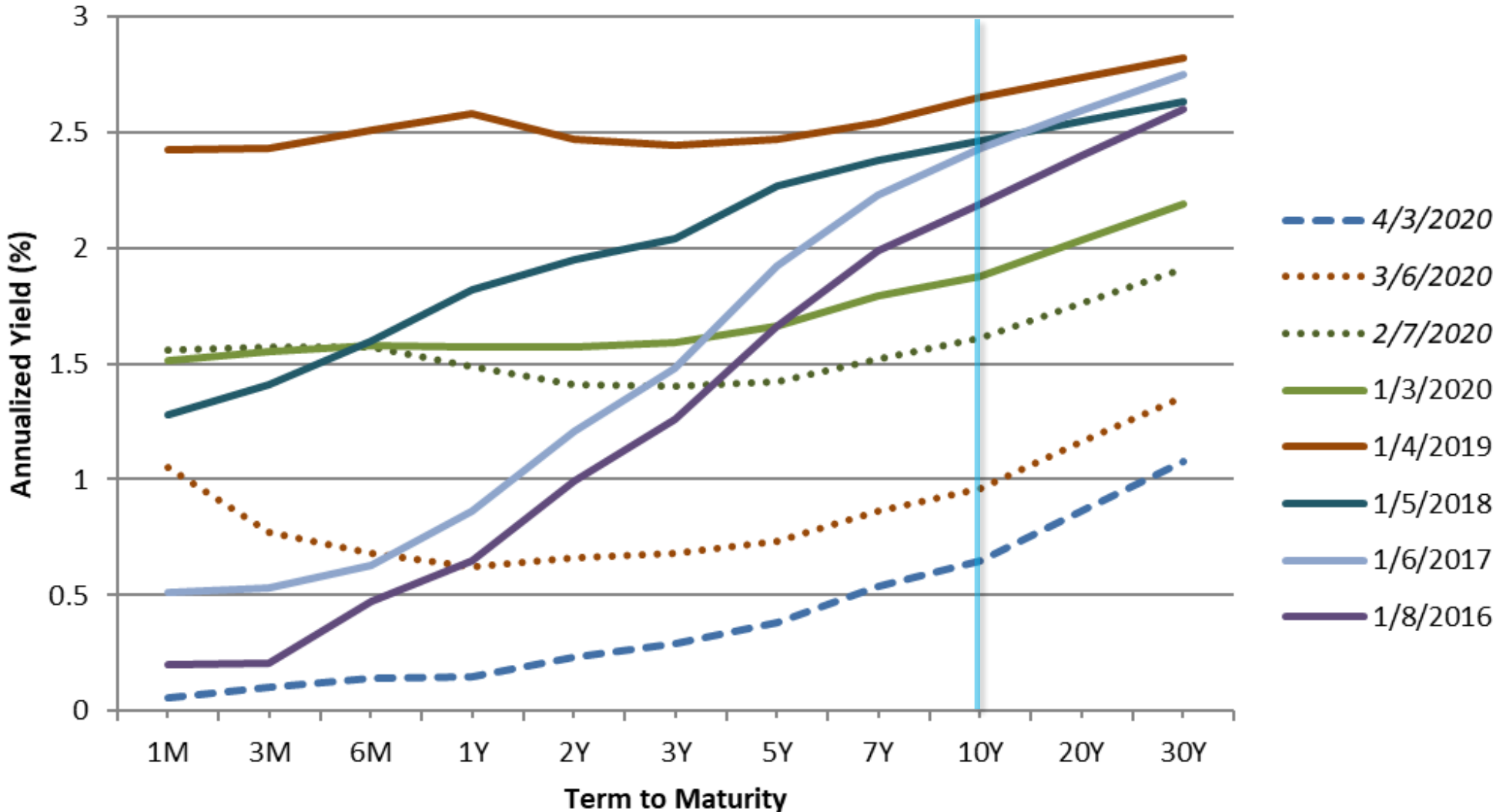
Yield Curve Sept 2001- April 3, 2020 (weekly)

- Flat, low rate curve
- Low term premium
- Credit spreads increased
- Fed Emergency cuts are quite rare – **2** recent
- Repo Liquidity support
- Target rate = 0%
- Prospects for negative rates in US? (low)
- Impact on long duration inflation sensitive assets like farmland?



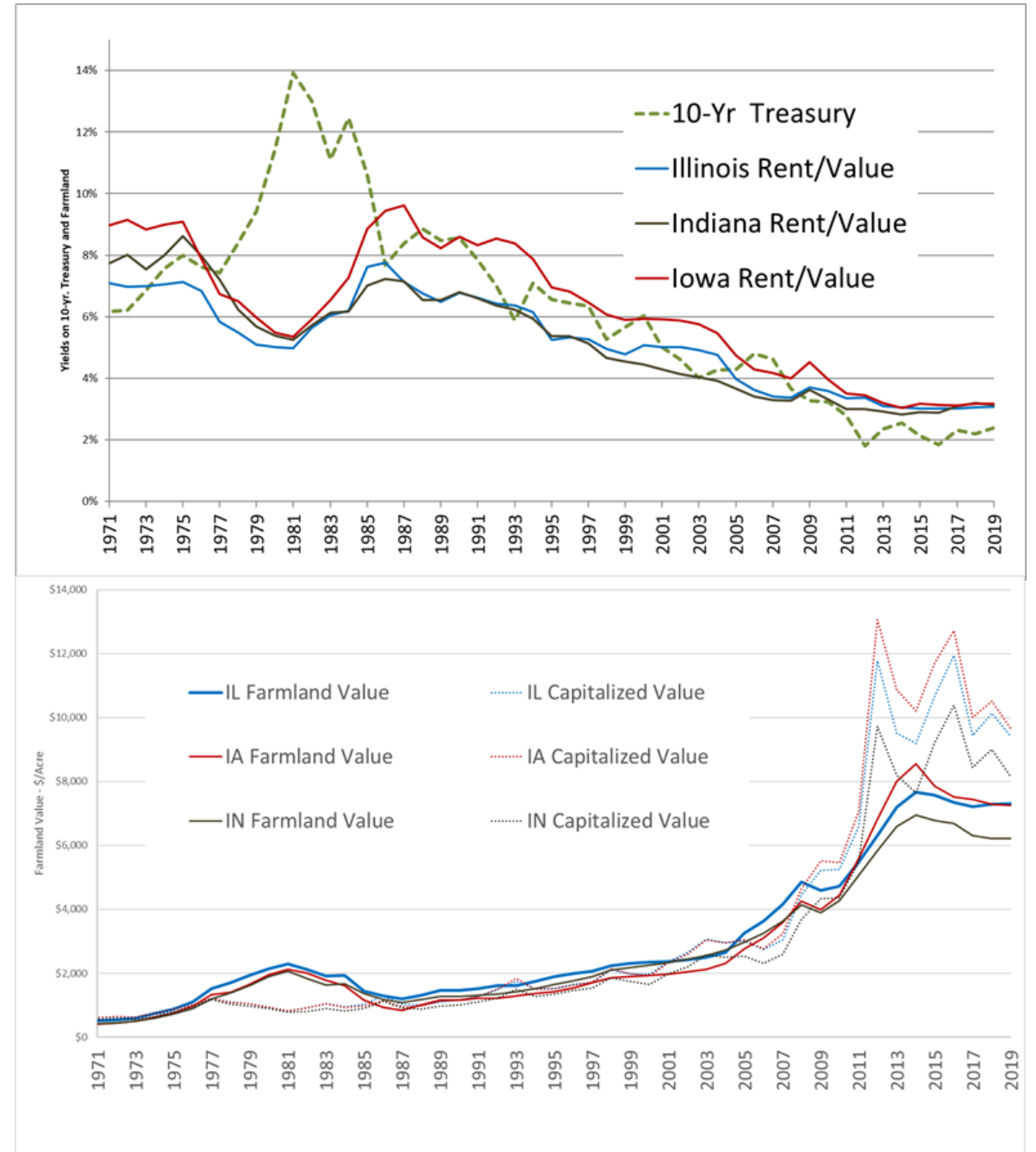
(12/15, 12/16, 3/17, 6/17, 12/17, 3/18, 6/18, 9/18, 12/18, 7/19, 9/19, 10/19, 3/20, 3/20 to zero)

Term Premium vs. level of rates, and the appropriate discount rate for Ag



Do Farm Assets behave like Financial Assets yet? Why/Not

- Farmland returns are positively correlated with inflation in long run, but no recent inflation...income expectations and growth drivers uncertain
- Very different than 1980s
- Very low cap rates supportive of values
- Ag increasingly acceptable class
- Scale in investable space still low
 1. New institutional vehicle
 2. Major funds
 3. REITs
 4. Crowd Funded – Blockchain growing



Dow Jones Industrial Average as a summary of Equity Markets

Largest point gains					Largest point losses				10 +/- Largest changes by date				
Rank	Date	Close	Net Change	%	Date	Close	Net Change	%	Date	Rank	Close	Net Change	%
1	3/24/20	20,705	2,113	11.37	3/16/20	20,189	-2,997.10	-12.93	4/6/20	3	22,680	1627.46	7.73
2	3/13/20	23,186	1,985	9.36	3/12/20	21,201	-2,352.60	-9.99	4/1/20	10	20,944	-973.65	-4.44
3	4/6/20	22,680	1,627	7.73	3/9/20	23,851	-2,013.76	-7.79	3/26/20	4	22,552	1351.62	6.38
4	3/26/20	22,552	1,352	6.38	3/11/20	23,553	-1,464.94	-5.86	3/24/20	1	20,705	2112.98	11.37
5	3/2/20	26,703	1,294	5.09	3/18/20	19,899	-1,338.46	-6.30	3/18/20	5	19,899	-1338.46	-6.3
6	3/4/20	27,091	1,173	4.53	2/27/20	25,767	-1,190.95	-4.42	3/17/20	9	21,237	1048.86	5.2
7	3/10/20	25,018	1,167	4.89	2/5/18	24,346	-1,175.21	-4.60	3/16/20	1	20,189	-2997.1	-12.93
8	12/26/18	22,878	1,086	4.98	2/8/18	23,860	-1,032.89	-4.15	3/13/20	2	23,186	1985	9.36
9	3/17/20	21,237	1,049	5.2	2/24/20	27,961	-1,031.61	-3.56	3/12/20	2	21,201	-2352.6	-9.99
10	10/13/08	9,388	936	11.08	4/1/20	20,944	-973.65	-4.44	3/11/20	4	23,553	-1464.94	-5.86
11	10/28/08	9,065	889	10.88	3/5/20	26,121	-969.58	-3.58	3/10/20	7	25,018	1167.14	4.89
12	1/4/19	23,433	747	3.29	3/27/20	21,637	-915	-4.06	3/9/20	3	23,851	-2013.76	-7.79
13	3/30/20	22,327	691	3.19	3/20/20	19,174	-913	-4.55	3/4/20	6	27,091	1173.45	4.53
14	3/26/18	24,203	669	2.84	2/25/20	27,081	-879.44	-3.15	3/2/20	5	26,703	1293.96	5.09
15	8/26/15	16,286	619	3.95	10/10/18	25,599	-831.83	-3.15	2/27/20	6	25,767	-1190.95	-4.42
16	11/28/18	25,366	618	2.5	8/14/19	25,479	-800.49	-3.05	2/24/20	9	27,961	-1031.61	-3.56
17	2/6/18	24,913	567	2.33	12/4/18	25,027	-799.36	-3.10	12/26/18	8	22,878	1086.25	4.98
18	11/13/08	8,835	553	6.67	3/3/20	25,917	-785.91	-2.94	2/8/18	8	23,860	-1032.89	-4.15
19	10/16/18	25,798	548	2.17	9/29/08	10,365	-777.68	-6.98	2/5/18	7	24,346	-1175.21	-4.6
20	11/7/18	26,180	545	2.13	8/5/19	25,718	-767.27	-2.90	10/13/08	10	9,388	936.42	11.08

Farmland Returns in context – 2000-2019 (Q4)

Table 1. Asset Return Characteristics

Asset/Index	Annual Ave. Return	Standard Deviation	Coefficient of Variation	Correlation
----- 2000 - 2019 -----				
Illinois	9.21%	6.63%	0.720	1
NCREIF Total Farmland	12.52%	7.52%	0.601	0.875
NCREIF Permanent	14.69%	10.46%	0.712	0.757
All REITS	10.72%	18.28%	1.704	-0.222
Dow Jones	4.55%	15.34%	3.374	-0.139
NASDAQ	3.95%	25.87%	6.544	-0.070
S&P500	3.94%	18.02%	4.573	-0.076
AAA	5.00%	1.16%	0.232	0.046
TCM10Y	3.43%	1.19%	0.346	0.146
Gold	8.26%	14.13%	1.710	0.038
CPI	2.12%	0.95%	0.451	0.204

Note: DJIA is down over 30% since January 1, 2020

Key issues to monitor in ag finance

- Continuity in transactional markets is difficult to keep on pace – slowing, not stopped
- Loan rate volatility could remain for some time
- Potential disruptions in food supply chain – slaughter plants, distribution, processing...
- Trade, ethanol, and how quickly will the new long run arrive.
- Consumer preferences, share of \$ spent on “attributes”, unlikely return to old food purchase habits.
- Genomics replaces genetics – and GMOs save the day in the war on COVID-19
- Ag sector financialization occurring at the margin, slow evolution, but positive developments, and may accelerate with financial stress.
- Good time to consider balance sheet management, but loan rate adjustments lag.
- **Exceptionally good portfolio asset, likely to survive the long game.**
- **Not a crisis that originated in Ag or in the Banking System – both will survive.**

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Upcoming Webinars

Scott Irwin and Jeff Bunting on Crop Supply Logistics this Spring

11:00 to 11:30am CT, Tuesday April 14th

Scott Irwin will be joined by Jeff Bunting of FS Growmark to discuss crop input supply and logistics issues that may arise due to the coronavirus pandemic. Scott will provide a brief overview of recent grain market developments and Jeff will then provide an overview of crop input supply and logistic issues.

Getting the 2020 Crop Planted

11:00 to 11:30am CT, Friday April 17th

Even with good corn and soybean yields following record-late planting in 2019, there is increased urgency in getting the 2020 crops planted on time. Emerson Nafziger will talk about the start of the 2020 planting season, current conditions, and planting date, depth, and seeding rate decisions in the coming weeks.

Thank You for joining us!

Please submit your questions



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We invite you to use the button on the right to submit questions. We will do our best to address them during the upcoming articles and videos.

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