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Consolidation, Globalization, and the American Family Farm

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Issue

Consolidation and globalization in the food industry have reached a point where the top four firms in almost every sector have acquired abusive levels of power. This corporate control has allowed the top firms to reap record profits, paying lower prices to the farmers who produce our food and charging higher prices to consumers on the retail side. The U.S. is losing farmers at an alarming rate, agricultural jobs and wages are drying up, and rural communities are disappearing. These problems can be mitigated by reining in corporations and their economic power, allowing an opportunity for U.S. farmers and ranchers to compete in fair and open markets.

Consolidation and Globalization in the Food Industry

The current crisis of the American family farm is the direct result of mergers, integration, and globalization in the food industry. Using CR4 ratios, an economic measurement of concentration that calculates the total percentage of a market controlled by the industry's largest four firms, Mary Hendrickson at the University of Missouri calculated the extent of concentration in the food industry between 1990 and 2011. In all sectors except flour milling, concentration increased dramatically during that time. In pork production, control by the largest four firms nearly doubled over just ten years.

A CR4 ratio over 45% indicates a highly concentrated market where abuses are likely. As of 2011, CR4 ratios were above 50% in pork, broiler and turkey slaughter, and ratios were above 80% in beef slaughter, wet corn milling, and soybean processing (Table 1).[1]

[1] M.K. Hendrickson 2015. "Resilience in a concentrated and consolidated food system." Journal of Environmental Studies and Sciences.

Horizontal and Vertical Integration

To understand how heavy concentration impacts farmers and rural economies, it is important to know how large corporations monopolize the food sector through both horizontal and vertical integration. Horizontal integration is the acquisition of additional business activities at the same stage of production, often through company mergers. For example, Brazilian meat processor JBS was already one of the U.S.'s largest beef processors, but became the world's largest meat processor overall by acquiring Swift, Pilgrim's Pride poultry, Cargill pork, and other businesses selling their processed proteins through a number of brands they control or own.

Table 1 Concentration ratios for selected US agricultural commodities

Industry sector	1990	1999	2011
Beef slaughter—steer and heifer	69 %	79 %	82 %
	IBP	IBP	Cargill
	ConAgra	ConAgra	Tyson
	Excel (Cargill)	Excel (Cargill)	JBS
	Beef America	Farmland National Beef	National Beef
Beef production/feedlots	n/a	1,349,000 capacity	1,983,000 capacity
	Cactus Feeders	Continental Grain Cattle Feeding (405,000)	JBS Fiver Rivers Cattle Feeding (838,000)
	ConAgra (Monfort)	Cactus Feeders, Inc. (350,000)	Cactus Feeders (520,000)
	J.R. Simplot Co.	ConAgra Cattle Feeding (320,000)	Cargill Cattle Feeders LLC (350,000)
	Caprock (Cargill)	National Farms, Inc. (274,000)	Friona Industries (275,000)
Pork slaughter	45 %	57 %	63 %
	IBP	Smithfield	Smithfield Foods
	ConAgra	IBP Inc.20 %	Tyson Foods
	Morrell	ConAgra (Swift) 10	Swift (JBS)
	Excel	8 % Cargill (Excel)	Excel Corp. (Cargill)
Pork production	n/a	834,600 sow capacity	1,618,904 sow capacity
	Murphy Farms	Murphy Family Farms (337,000)	Smithfield Foods (876,804)
	Tyson Foods	Carroll's Foods (183,600) (8 %)	Triumph Foods (371,000)
	Cargill	Continental Grain (incl. PSF) (162,000)	Seaboard (213,600)
	National Farms	Smithfield Foods (152,000)	Iowa Select Farms (157,500)
Broiler slaughter	45 %	49 %	53 %
	Tyson	Tyson	Tyson
	ConAgra	Gold Kist	JBS (Pilgrim's Pride)
	Gold Kist	Perdue	Perdue
	Perdue Farms	Pilgrim's Pride	Sanderson
Turkey slaughter	31 %	42 %	58 %
	Louis Rich (Philip Morris)	Jennie-O (Hormel)	Butterball (Smithfield/Goldsboro)
	Swift (Beatrice/KKR)	Butterball (ConAgra)	Jennie-O (Hormel)
	ConAgra	Wampler Turkeys	Cargill
	Norbest	Cargill	Farbest Foods
Flour milling	61 %	62 % (*note CR3)*	52 % (*note CR3)*
	ConAgra	ADM	Horizon Milling (Cargill/CHS)
	ADM	ConAgra	ADM
	Cargill	Cargill Flour Milling	ConAgra
	Grand Met (Pillsbury)		
Wet corn milling	74 %	74 %	87 %
	ADM	ADM	ADM
	Cargill	Cargill	Corn Products International
	AvE. Staley (Tate and Lyle)	A.E. Staley (Tate and Lyle)	Cargill
	CPC	CPC	
Soybean processing	61 %	80 %	85 %
	ADM	ADM	ADM
	Cargill	Cargill	Bunge
	Bunge	Bunge	Cargill
	Ag. Processors	Ag Processing	Ag Processing

Source: Table is adapted from previous research reported in James et al. (2013) and Constance et al. (2014)
CR 4 refers to the percent of the market controlled by the top four firms

Horizontal integration has come with vertical integration across agricultural sectors as companies expand business operations into different stages on one production path. For example, Tyson has fully vertically integrated its poultry operations by owning the animal from the genetics through the hatchery through the chicken house through the processing plant to the retail meat counter.

This economic power shift results in real consequences. For example, in the pork industry, large numbers of independent hog farmers have been squeezed out of the market and replaced by vertically integrated concentrated animal feeding operations (CAFOs). Higher concentration of swine in fewer places has led to complaints of respiratory issues from workers and neighbors, over-fertilization of nearby cropland, and fish kills when lagoons overflow.[2]

[2] Hendrickson 2015.

Globalization

Alongside the rise of horizontal and vertical integration, globalization is having a larger impact on the food business. The five grain traders that dominate the soybean processing market in Brazil dominate U.S. grain trading; Cargill has major processing facilities in China; and Tyson has significant operations in Mexico. Globalization has left foreign firms with control of the U.S. food industry, posing a threat to our national and food security. The largest U.S. pork processor, Smithfield, was acquired by a Chinese firm in 2013, and the second largest beef, poultry, and pork processor in the U.S., JBS, is based in Brazil.

With the globalization of the food industry has come the rise of transnational grocers that dominate markets across the world. In the U.S., the concentration ratios for the food retail industry have increased from CR5=24% in 1997 to CR4=42-51% in 2011.[3] The lack of competition along with deregulation allows supermarkets to dictate terms and inflate profits by reducing prices to suppliers and increasing prices for consumers.

Foreign Ownership of U.S. Farmland

As foreign investment in the food industry has increased, so has its investment in agricultural lands. According to the USDA, foreign investors have nearly doubled their ownership of U.S. farmland, increasing from 14.6 million acres in 2004 to 26.7 million acres in 2014.[4] Total farmland owned by foreign investors represents 2.1% of all privately held agricultural land in the U.S.; however, many foreign interests with significant financial resources, including China, Saudi Arabia, and South Korea, are in the market for U.S. farmland due to the lack of productive land in their countries.[5] In 2014, the Chinese government released a report indicating that nearly one-fifth of its arable land was polluted.[6]

With uncertainty in the international monetary system and the heavy economic power of the foreign food industry, investors have an advantage over U.S. farmers in acquiring agricultural land. The average American farmer is 58 years

Missouri
In 2013, Shuanghui International (now known as WH Group, which has significant investments from the Chinese government) acquired Smithfield Foods in the largest buyout of an American company by a Chinese company. The $5 billion purchase included assets in more than a dozen states, including up to 50,000 acres of Missouri farmland with a total of 146,000 acres in the U.S. China now owns one of every four hogs in the U.S.[7]

Oklahoma
A 2016 assessment conducted by the Kirkpatrick Foundation found that between the years 2004 to 2014, foreign ownership grew by 475% to a total of 370,425 acres of agricultural land.[8]

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[3] Hendrickson 2015.
[4] U.S. Department of Agriculture. Farm Service Agency. "Foreign Holdings of U.S. Agricultural Land Through December 31, 2014."
[5] Holloway, Leslie. "Prohibiting the Foreign Ownership of Missouri Farmland." Missouri Farm Bureau. Available at https://www.mofb.org/NewsMedia/CuttotheChase.aspx?articleID=470. Accessed August 2017.
[6] Wong, Edward. "One-Fifth of China's Farmland Is Polluted, State Study Finds." *The New York Times*. 17 April 2014. Available at https://www.nytimes.com/2014/04/18/world/asia/one-fifth-of-chinas-farmland-is-polluted-state-report-finds.html. Accessed August 2017.
[7] Midwest Center for Investigative Reporting. Agricultural Foreign Investment Disclosure Act Database. Available at http://apps.investigatemidwest.org/afida/. Accessed August 2017.
[8] Kirkpatrick Foundation. "The Facts About Foreign Involvement in Oklahoma Agriculture."

old, and the next generation of farmers may not be able to afford to buy the land they need to operate, thereby jeopardizing their future and increasing the threat to our nation's food security.

Agrochemicals, Seeds, and Genetics

Corporate consolidation has affected the input side of the industry as well. Just two years ago, six major firms controlled the agricultural biotechnology industry. With pending mergers of ChemChina and Syngenta, Dow and Dupont, and Bayer and Monsanto, the "Big 6" would be reduced to the "Big 3," which would control 80% of the U.S. seed supply and 70% of the global market for pesticides.

The mergers of ChemChina and Syngenta and Dow and Dupont have already won U.S. antitrust approval. The merger of Bayer and Monsanto, if approved, would allow the combined company to control 65% of the market for cottonseed-containing genetic traits and 58-97% of the markets in cotton, soybeans, and canola.[9] Bayer-Monsanto and Dow-Dupont together would produce 77% of all the corn seed in the U.S., and Bayer-Monsanto would become the world's largest agricultural chemical company. Farmers would see prices go up while input options and innovation go down. Americans are overwhelmingly opposed to the Bayer-Monsanto merger: a 2017 poll found that 69% of Americans have very serious concerns about the Bayer-Monsanto merger, in particular, and very serious concerns about potential monopolies and concentrated corporate power in the U.S. in general.[10] American family farmers cannot survive economically if too few companies on both sides of their production are allowed to continue to have such heavy economic power.

Decline in U.S. Family Farms

Since 1990, the number of large farms has tripled and the number of very large farms has increased sevenfold. Over the same period, the number of farms overall decreased by 10%.[11] Table 2, by James MacDonald of the U.S. Department of Agriculture's Economic Research Service, shows the median (midpoint) hog farm now produces 40,000 hogs per year, vs 1,200 in 1987. The median size is now nearly 40 times larger than it was three decades ago, but only a quarter of the producers are left. [12]

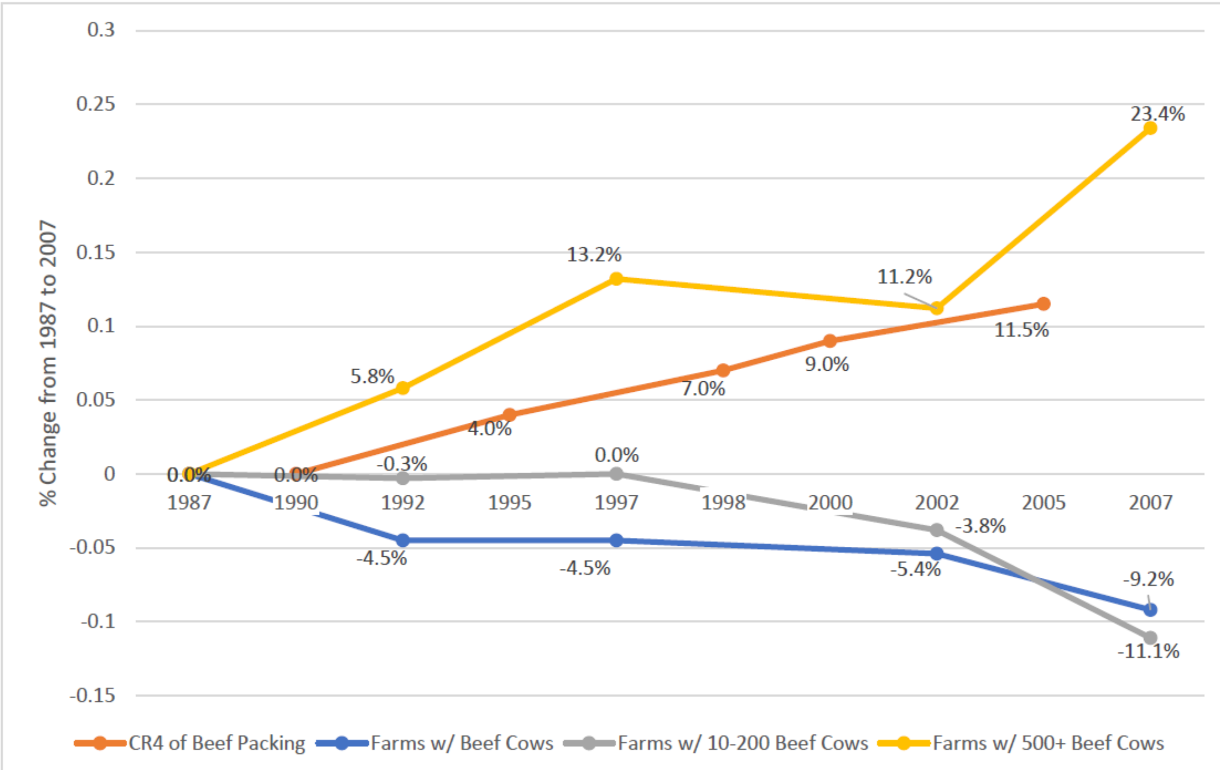
Table 2: Structural Change in U.S. Livestock Production

Item	1987	2012
Midpoint farm sizes		
Broilers (annual sales/removals)	300,000	680,000
Cattle feeding (annual sales/removals)	17,532	38,369
Hogs (annual sales/removals)	1,200	40,000
Milk cows (herd size)	80	900
Number of farms with		
Contract broiler production	22,000	15,830
Cattle feeding	112,109	77,120
Hogs	243,398	63,246
Milk cows	202,068	64,098

[9] American Antitrust Institute, Food & Water Watch, and National Farmers Union. Press Release. "AAI, FWW, and NFU Say Monsanto-Bayer Merger Puts Competition, Farmers, and Consumers at Risk." July 26, 2017.
[10] Friends of the Earth. Press Release. "New Poll: Americans believe Bayer-Monsanto merger poses serious threats to jobs, independent farmers, and food safety." June 14, 2017.
[11] U.S. Department of Agriculture. Census of Agriculture. Available at https://www.agcensus.usda.gov/. Accessed August 2017.
[12] MacDonald, James M. 2016. "Concentration, Contracting, and Competition Policy in U.S. Agribusiness." Concurrences Competition Law Review I.:3–9.

In the beef industry, we can see that as beef packer concentration increased, so did the number of farms with over 500 beef cows, while the number of beef cow farms in total and those with between 10-200 beef cows decreased (Table 3).[13]

Table 3: The Effect of Beef Packing Concentration on Cow-Calf Farms



Following a 30-year trend, the average age of the U.S. farmer continues to rise. In 2012, the average age of the principal operator was 58.3 years.[14] In his or her lifetime, the American family farmer has witnessed the loss of 1.6 million farms.[15]

The decline of black farmers has been even worse. A review of USDA data by Webster Davis of the Missouri Chapter of the NAACP showed that the number of black farmers peaked in 1920, when 927,710 farmers owned about 15 million acres of land. By 1959, the number had declined to 272,500, and black farmers accounted for only 7.3 percent of all farmers. The U.S. Commission on Civil Rights recognized the severity of decline in 1982, when it predicted there would be "virtually no blacks operating farms in this country by the end of the next decade."[16] The number of black

[13] Note that in 1997, the USDA began adjusting for coverage errors, which could indicate that the increased number of farms in 1997 is the result of adjustments, and not reflective of a true increase.
[14] U.S. Department of Agriculture. "2012 Census Highlights, Farm Demographics - U.S. Farmers by Gender, Age, Race, Ethnicity, and More." May 2014. Available at https://www.agcensus.usda.gov/Publications/2012/Online_Resources/Highlights/Farm_Demographics/. Accessed August 2017.
[15] U.S. Department of Agriculture. Census of Agriculture. Available at https://www.agcensus.usda.gov/. Accessed August 2017.
[16] United States Commission on Civil Rights. "Decline of black farming in America." Washington, DC. February, 1982.

farmers has continued to decline, and in 2012 there were only 44,629; just 1.4 percent of farmers. In all practical senses, the U.S. Commission on Civil Rights' prediction has come true.

Numbers of women and beginning farmers have also declined in recent years. From 2007 to 2012 we saw a 7% decrease in the number of female principal operators, a larger decrease than that of male principal operators. From 2007 to 2012, the number of beginning farmers who have been on their operation less than 10 years decreased by 20%. Those on their land less than five years decreased 23%.[17]

Economic Impact on Farms and Rural Communities

Corporate consolidation has had a devastating impact on small businesses. Between 1990 and 2016, federally inspected slaughterhouses decreased by 36 percent. In 1990, there were 1,268 federally inspected establishments, compared to 808 in 2016. Non-federally inspected establishments fared even worse, declining 42 percent since 1990, when there were 3,281 establishments compared to 1,910 in 2016.[18] Jobs and wages have disappeared along with the slaughterhouses. According to the Bureau of Labor Statistics, the animal slaughtering and processing industry employed a total of 506,000 people in 2005. By May 2016, the industry employed only 80,780 people and their average wage was down to half of that of all manufacturing jobs in the U.S.[19]

Farmers and ranchers have seen farm income decline along with the rise of corporate consolidation. Since 2013, U.S. farm income has dropped by $43.6 billion.[20] According to the PEW Charitable Trusts, 71% of poultry growers whose sole source of income was chicken farming were living below the poverty line in 2001.[21]

According to a study by the Kirkpatrick Foundation, the state of Oklahoma saw the steepest decline in its agricultural workforce alongside the state's sharp rise of corporate industrial agriculture. Since the arrival of concentrated swine and poultry production in the early 1990s, the number of agricultural jobs in Oklahoma has declined by 77%. The state started losing agricultural jobs in 1969, the same year it began allowing corporations to engage in farming and ranching.[22]

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[17] U.S. Department of Agriculture. "2012 Census Highlights, Farm Demographics - U.S. Farmers by Gender, Age, Race, Ethnicity, and More." May 2014. Available at https://www.agcensus.usda.gov/Publications/2012/Online_Resources/Highlights/Farm_Demographics/. Accessed August 2017.

[18] U.S. Department of Agriculture. "Overview of the United States Slaughter Industry." October 2016.

[19] Bureau of Labor Statistics. Occupational Employment and Wages, May 2016. Available at https://www.bls.gov/oes/current/oes513023.htm#nat. Accessed August 2017.

[20] U.S. Department of Agriculture Economic Research Service. Net Cash Income. Available at https://data.ers.usda.gov/reports.aspx?ID=17831. Accessed August 2017.

[21] Pew Charitable Trusts. "The Business of Broilers: Hidden Costs of Putting a Chicken on Every Grill." December 2013. Available at http://www.pewtrusts.org/en/research-and-analysis/reports/2013/12/20/the-business-of-broilers-hidden-costs-of-putting-a-chicken-on-every-grill. Accessed August 2017.

[22] Kirkpatrick Foundation. "1990-2000: The Decade Oklahoma's Agricultural Jobs Vanished."

Heavy concentration of industrial agriculture not only drives farmers from the land and businesses and the jobs they create off main street, it also destroys the very social fabric of rural communities. With farmers feeling the pressure from concentration on both sides of their production, they have been told their only option is to get big or get out. The result is distant landowners, fewer farmers, and lost communities.[23]

Who's Making the Money

With such high CR4 ratios in the food industry, large corporations, often foreign owned or controlled, can use their economic power to drive down prices paid to farmers and increase prices paid by consumers, while reaping record profits themselves.

In 2016, Tyson Foods shares reached an all-time high as low grain prices paid to farmers reduced the cost of meat production.[24] The same year, the Georgia Dock chicken pricing index was suspended by USDA amidst accusations that it colluded with Tyson and Pilgrim's Pride to keep chicken prices artificially high for consumers.[25] Meanwhile, most of the growers who raise chickens for the large integrators have not received a pay increase in 20 years, according to the Contract Poultry Growers of the Virginias.

In 2016, the largest pork producer in the U.S., Chinese-owned Smithfield Foods, credited its enhanced profits to the 14-year low prices paid to farmers for live hogs and the higher selling prices for pork to consumers.[26] Meanwhile, in the beef industry, from 2013-2016, prices paid to cattle producers dropped by 13%, while beef prices at the grocery store increased by 4%.[27]

Evidence is mounting that the prices paid to farmers and prices charged to consumers are not the result of a fair market, but rather, are the heavy hand of monopolistic multinational corporations colluding and manipulating price to put ill-gotten profits in their pockets.

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[23] Manhani Mattos, Daniel 2012. "The Community Loses when it Loses Farmers: Impacts of a Changing Local Farmland Market." University of Illinois at Urbana-Champaign. For more information, see Food & Water Watch. "The Economic Cost of Food Monopolies." November 2012. Available at https://www.foodandwaterwatch.org/insight/economic-cost-food-monopolies.
[24] Polansek, Tom. "Tyson Foods projects record profits, shares hit high." *Reuters*. 8 August 2016. Available at http://www.reuters.com/article/us-tyson-foods-results-idUSKCN10J17U. Accessed August 2016.
[25] Strom, Stephanie. "You Might Be Paying Too Much for Your Chicken." *The New York Times*. 3 Nov 2016. Available at https://www.nytimes.com/2016/11/04/business/maybe-paying-too-much-for-chicken.html. Accessed August 2017.
[26] Smith, Dennis. "Who is Watching Out for the Independent Producer?" *National Hog Farmer*. 31 Oct 2016. Available at http://www.nationalhogfarmer.com/marketing/who-watching-out-independent-producer. Accessed August 2017.
[27] U.S. Department of Agriculture Economic Research Service. Meat Price Spreads. Available at https://www.ers.usda.gov/data-products/meat-price-spreads/. Accessed August 2017.

Policy Proposals

Restore the Packers and Stockyards Act

1. Implement federal legislation that amends Packers and Stockyards Act, 1921 (P&S Act) to provide that the use of a tournament system to rank poultry growers for settlement purposes is unfair, discriminatory, deceptive, and a strict violation of section 202(a) of the P&S Act regardless of whether it harms or is likely to harm competition.

2. Implement federal legislation that is consistent with USDA's long-held position that a showing of harm or likely harm to competition is not required for violations of the P&S Act.

3. Implement federal legislation that clearly sets out any retaliatory action or threat of retaliatory action by any packer, swine contractor, or live poultry dealer is conduct or action that is unfair, discriminatory, or deceptive, and a violation of section 202(a) of the P&S Act regardless of whether the conduct harms or is likely to harm competition.

4. Further, implement federal legislation that would codify the GIPSA rules related to §§ 201.210 and 201.211 and issuing of § 201.3(a).[28]

Increase Antitrust Enforcement

1. Require regulators to review mergers after completion to ensure they continue to promote competition, and in failing to show the promotion of competition, grant regulators authority to implement penalties and other corrective measures if they find abusive monopolistic conditions or that the corporation failed to achieve agreed to terms and conditions of the merger.

2. Implement new standards to limit mergers that unfairly consolidate corporate power.

3. Establish a modern day "Trust Buster" to reverse and stop abusive monopolistic practices in the marketplace and disperse market power.

4. Restore the original intent of antimonopoly laws to protect our democracy and communities by ensuring freedom in the market from abusive economic power.

5. Adopt new legislation that addresses abuse of superior bargaining position, buyer power, and public interests to include environmental degradation, food safety and quality, national and food security, impact on workers, producers, and communities.

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[28] Organization for Competitive Markets. "Policy Position: Restore the Packers and Stockyards Act." July 2017. Available at http://competitivemarkets.com/restore-the-packers-and-stockyards-act/. Accessed August 2017. For more information, see U.S. Department of Justice. "Competition and Agriculture: Voices from the Workshops on Agriculture and Antitrust Enforcement in our 21st Century Economy and Thoughts on the Way Forward." Available at https://www.justice.gov/sites/default/files/atr/legacy/2012/05/16/283291.pdf.

Increase Access to Capital for Emerging Markets

1. Hold a congressional review of the Community Reinvestment Act to require increased investment in rural communities and emerging agricultural market sectors focusing on the suggestions provided by the Federal Reserve Bank of St. Louis.[29]

2. Hold a congressional review of the effectiveness of increasing the accessibility to capital for emerging agricultural markets through the use of community development financial institutions, community banks, and credit unions.

Trade Policy

1. Remove the prohibition in the WTO agreement that prevents member countries from establishing farm policy based on supply and price considerations.[30]

2. Ensure all trade agreements allow for Country of Origin Labeling and prevent meat that is born and raised in foreign countries from being exported as U.S. products.

Foreign Ownership of Agricultural Land and Investment

1. Adopt the Food Security is National Security Act of 2017.[31]

2. Strengthen the Agricultural Foreign Investment Disclosure Act of 1978 by requiring mandatory reporting and penalties for failure to report.

3. Increase the enforcement of state laws that limit the foreign ownership of agricultural land.

Checkoff Program Reform

Limit the lock industrial agriculture has on federal funds being used to build its influence in our capitols by passing The Opportunities for Fairness in Farming (OFF) Act S. 741 & H.R. 1753 and the Voluntary Checkoff Act, S. 740 & H.R. 1752.

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[29] Federal Reserve Bank of St. Louis and the Board of Governors of the Federal Reserve System. *Harvesting Opportunity: The Power of Regional Food System Investments to Transform Communities*. 2017.
[30] Hauter, Wenonah. *Foodopoly*. The New Press, 2012. P. 302-303.
[31] U.S. Congress. S.616 - Food Security is National Security Act of 2017. Available at https://www.congress.gov/bill/115th-congress/senate-bill/616. Accessed August 2017.