DOWN ON THE FARM

WALL STREET: AMERICA'S NEW FARMER

The Oakland Institute

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Overview

The first years of the twenty-first century will be remembered for a global land rush of nearly unprecedented scale. An estimated 500 million acres, an area eight times the size of Britain, was reported bought or leased across the developing world between 2000 and 2011, often at the expense of local food security and land rights.[1] When the price of food spiked in 2008, pushing the number of hungry people in the world to over one billion,[2] the interest of investors spiked as well, and within a year foreign land deals in the developing world rose by a staggering 200 percent.[3] Today, enthusiasm for agriculture borders on speculative mania. Driven by everything from rising food prices to growing demand for biofuel, the financial sector is taking an interest in farmland as never before. As the Oakland Institute reported in 2012, a new generation of institutional investors—including hedge funds, private equity, pension funds, and university endowments—is eager to capitalize on global farmland as a new and highly desirable asset class.[4]

But the thing most consistently missed about this global land rush is that it is precisely that—*global*. Although media coverage tends to focus on land grabs in low-income countries, the opposite side of the same coin is a new rush for US farmland manifesting itself in rising interest from investors and surging land prices,[5] as giants like the pension fund TIAA-CREF commit billions to buy agricultural land.[6] One industry leader estimates that $10 billion in institutional capital is looking for access to US farmland,[7] but that number could easily rise as investors seek to ride out uncertain financial times by placing their money in the perceived safety of agriculture. In the next 20 years, as the US experiences an unprecedented crisis of retiring farmers, there will be ample opportunity for these actors to expand their holdings as an estimated 400 million acres changes generational hands. And yet, the domestic face of this still-unfolding land rush remains largely unseen. For all their size and ambition, virtually nothing is known about these new investors and their business practices. Who do they buy land from? What do they grow? How do they manage their properties? In an industry not known for its transparency, none of these questions have a satisfactory answer.

For more than six years the Oakland Institute has been at the forefront of exposing the murky nature of land deals in the developing world. The challenge today is to begin a more holistic discussion that places transfer of land in both the developed and developing worlds along the same continuous spectrum. Driven by the same structural factors and perpetrated by many of the same investors, the corporate consolidation of agriculture is being felt just as strongly in Iowa and California as it is in the Philippines and Mozambique. The goal of the report is to introduce readers to the overlapping global and national factors enabling the new American land rush, while at the same time introducing the motives and practices of some of the most powerful players involved in it: UBS Agrivest, a subsidiary of the biggest bank in Switzerland; The Hancock Agricultural Investment Group (HAIG), a subsidiary of the biggest insurance company in Canada; and the Teacher Annuity Insurance Association College Retirement Equities Fund (TIAA-CREF), one of the largest pension funds in the world. Only by studying the motives and practices of these actors today does it become possible to begin building policies and institutions that help ensure farmers, and not absentee investors, are the future of our food system.

Nothing is more crucial than beginning this discussion today. The issue may seem small for a variety of reasons—because institutional investors only own an apparently tiny one percent of all US farmland,[8] or because farmers are still the biggest buyers of farmland across the country.[9] But to take either of these views is to become dangerously blind to the long-term trends threatening our agricultural heritage.

Consider the fact that investors believe that there is roughly $1.8 trillion worth of farmland across the country. Of this, between $300 billion and $500 billion is considered to be of "institutional quality,"[10] a combination of factors relating to size, water access, soil quality, and location that determine the investment appeal of a property.[11] This makes domestic farmland a huge and largely untapped asset class. Some of the biggest actors in the financial sector have already sought to exploit this opportunity by making equity investments in farmland. Frequently, these buyers enter the market with so much capital that their funds are practically limitless compared to the resources of most farmers. Although they have made an impressive foothold, this is the beginning, not the end, of a land rush that could literally change who owns the country and our food and agricultural systems. Not only is there space in the market for institutional investors to expand, but there are also major financial incentives for them to do so. If action is not taken, then a perfect storm of global and national trends could converge to permanently shift farm ownership from family businesses to institutional investors and other consolidated corporate operations.

Perfect Storm — Global Factors

In the aftermath of the global financial crisis, agriculture emerged as a promising bet for many beleaguered investors. In contrast to the volatile world of credit default swaps and mortgage-backed securities, farmland is a reassuringly tangible commodity that offers the opportunity for solid, if not excellent, returns. Historically, it holds its value very well against inflation and its returns are un-correlated with other asset classes—meaning that its profits are relatively well-insulated against shocks from other parts of the economy.[12] This makes farmland an exceptionally safe place to stash capital in uncertain economic times. As one analyst put it, farmland is "like gold with yield."[13] Like gold, it can be bought to preserve the value of money during times when profitable investments are scarce; unlike gold, it has the added benefit of generating profits through rental payments and crop sales.

But even before the economy imploded in 2008, a range of ecological, economic, and political factors were already herding investors toward farmland, often for simple reasons of supply and demand. Over the last 50 years, the amount of global arable land per capita shrank by roughly 45 percent, and it is expected to continue declining, albeit more moderately, going toward 2050.[14] The UN reports that desertification and soil depletion cost the world between 29 and 46 million acres annually.[15] Climate change, urbanization, water shortages, and pollution-related land degradation all mean added pressure on farmland. Although the forces driving this decline are some of the most pressing problems confronting the world today, many investors see them as a business opportunity. Jeremy Grantham, the celebrity investor and co-founder of Grantham Mayo van Otterloo, a global investment management firm, admitted as much when he said that land scarcity would harm humankind as a whole, but that ". . . the world [would not be] without winners. Good land, in short supply, will rise in price, to the benefit of land owners."[16]

To be clear, total arable land around the globe is slated for a marginal increase of less than 5 percent by 2050,[17] but this is nothing compared to the mounting pressures on farmland as a whole—mainly due to biofuel production, increased meat consumption, and price speculation in secondary markets. First, thanks to various government programs, global biofuel production is expected to reach 2.8 million barrels per day by 2040, or double the amount produced in 2010.[18] This is certain to aggravate tensions that already exist between using land to grow crops for food versus fuel. In the US alone, the federal government's ethanol mandate accounts for 40 percent of the entire corn crop, a massive commitment that hit developing countries with an estimated $6.6 billion in increased food costs between 2005 and 2011.[19] Second, thanks to a growing global middle class, meat production is expected to increase 85 percent from 2005 levels by 2050.[20] This means a higher demand for animal feed and thus a higher cost for the grain crops animals consume. And third, thanks to a deregulated financial sector, investors face far fewer obstacles when they speculate on the agricultural futures market. By placing bets on whether commodity prices will rise or fall, speculators can distort the marketplace and put upward pressure on food prices for reasons that have nothing to do with supply and demand.[21]

When these factors combine to increase crop prices, it sends a powerful price signal to investors of all kinds that farmland itself is a winning investment. This was the tragic dynamic at work during and after the global food crisis of 2008. Although fuel prices played a crucial role, commodity speculation and biofuel demand were the two biggest drivers of a price spike that sent 40 million people worldwide into hunger.[22] Unsurprisingly, the rising cost of food led to a rising interest in farmland, so much so that between 2008 and 2009 the number of confirmed land deals in the developing world doubled.[23]

Unfortunately, the story of 2008 and its aftermath may provide a glimpse of the future.

Perfect Storm — National Factors

Beyond these global trends, there are a number of factors specific to the US that are particularly conducive to today's land rush. As even the World Bank notes, large-scale land deals in poorer countries can be complicated endeavors. The land itself may be cheaper, but everything from lack of infrastructure to political corruption mean that profitability is sometimes elusive, with many high-profile projects going publicly bust.[26]

In contrast, the US boasts some of the world's most fertile soil, advanced industrial farm technology, strong private property rights, federally subsidized crop insurance,[27] and the most liberal genetically modified (GM) crop regulations in the developed world.[28] Due to rising economies in East Asia and growing demand for biofuel, total farm income is on a remarkable climb. It broke $100 billion for the first time in 2011, dropped slightly in 2012 because of the historic drought, and is projected to reach $128 billion in 2013. Adjusted for inflation, these are three of the four highest grossing years

PROFILE: JUDE BECKER OF BECKER LANE ORGANIC

When Jude Becker began farming in Dyersville, Iowa 12 years ago, the land his family had held for six generations was practically derelict. For much of Jude's life it had been leased to neighboring farmers, but when he decided to continue the tradition his family was well on its way to exiting agriculture completely. The story he tells is valuable not only because it shows how commercial success is possible for beginning farmers, but also because it highlights some of the most pertinent obstacles they face.

Jude has 300 acres of organic cropland and raises 4,000 pigs every year. Until recently, he was able to grow enough traditional grains—mainly corn, oats, and soy—to feed all of his animals. But the recent success of his pork business has led him to begin buying from other organic farms in the area. Although he first started marketing his pigs locally and within the region, they are now sold as far away as Northern California and the East Coast. His customers include the Chez Panisse restaurant in Berkeley, founded by the celebrity chef Alice Waters, and the Whole Foods supermarket chain.

Jude's customers tell him that his pork is darker, more marbled, and generally cleaner tasting. He attributes this higher quality to his farming practices, which are a far cry from factory-farmed hogs that live literally confined in their own filth. "These animals are growing in an environment where they're living as natural a life as possible, where they can exhibit their own natural behaviors, which means they can root and wallow and forage and do everything a pig does . . . all that in the open air."[24]

Jude is proud to be the owner of a farm business that can cover its own expenses. But one challenge that has been with him since the beginning—and is unlikely to go away—is land access. Even though the land he works has been in his family for generations, he still leases it from the family members who hold title. A few years ago, one of the parcels had to be sold because a relative was ill and needed the cash for medical care—an understandable development that he could hardly begrudge. Nevertheless, it was a rude awakening that brought home the fact that he would never be in a stable position until he owned the farm. "It's very easy for a young farmer to get . . . enamored with this false sense of security that they have land access, because they happen to be living on the land and farming it," he says, "but that doesn't mean you have access."[25]

Today, he is under pressure from family members eager to recoup the cash value of the land, either through a sale at market value or through competitive rental prices. But as much as he would like to buy the farm, he claims that the credit obstacles are too severe. In the Midwest, lenders are more inclined to do business with bigger, better-capitalized corporate operations rather than smaller, alternative ones like his. He is skeptical of the USDA's lending program as too restrictive and over-regulated. He sees easier-to-navigate and better-funded loan programs as the best path forward to help provide small, beginning, and alternative farmers with the capital to buy their land.

Jude plowing the land in preparation for corn, after pigs have been pasturing.

since the 1940s.[29] Thanks in part to a weak dollar, farm exports are projected to crest at $139.5 billion in 2013, a 40 percent increase from 2009 and a new national record.[30]

Biofuel, Fracking, and Solar Boom

Aside from record profits, another incentive investors are hard pressed to ignore is farmland's role in the elusive goal of US energy independence. Biofuel production, which received $1.3 billion in federal subsidies in 2012, is the most obvious factor. Although the government does not directly pay farmers to grow renewable feedstocks, biofuel is still supported by a combination of tax credits and production mandates that drive up land values and crop prices by increasing overall demand for agricultural products.[31] By 2022, the Environmental Protection Agency (EPA) estimates that biofuel-related demand for corn and soy will expand net farm income by an annual $13 billion.[32]

Less obvious incentives include using farmland for fossil fuel extraction. Unconventional drilling techniques like hydraulic fracturing ("fracking") are opening mineral reserves—mainly natural gas, but oil as well—previously thought inaccessible. From the Marcellus Shale, stretching from upstate New York to Virginia, to the Barnett Shale in Texas and the Bakken Shale in North Dakota, thousands of square miles atop these rock formations are now subject to drilling. This is turning farmland into a flashpoint in a struggle that pits agriculture against domestic energy production. There is already strong evidence that water-intensive fracking operations are competing with farms for irrigation,[33] to say nothing of the water contamination and unaccounted for deaths of grazing animals that allegedly result when farms or surrounding areas are drilled.[34] In the years ahead, these tensions between energy and agriculture seem likely to intensify as Northern and Central California's Monterey Shale enters the US energy boom. Not only does the area contain a potential 15.4 billion barrels of oil, totaling two-thirds of all the shale reserves in the entire country, but extraction could interfere with farming in some of the most productive and sought after agricultural land in the breadbasket state of California.[35]

A more sustainable, but still non-agricultural, alternative use for farmland is renewable energy generation. Flat, open terrain can be just as ideal for solar panels and windfarms as it is for cultivating crops, and, as states like California pass renewable energy mandates, the temptation to sacrifice prime farmland for electricity can be immense.[36] In California alone, where half a million acres have been lost to urbanization and other development projects in the past 20 years, there are 40,000 acres for which solar development is either planned or underway.[37] Overlapping state and federal programs, including tax credits and loan guarantees, provide powerful encouragement for investors interested in capital-intensive renewable energy infrastructure. In fact, one leading institutional investor in agriculture described government support for solar, wind, and biofuel as "icing on the cake" for people who already see farmland as a fundamentally strong investment.[38]

Buyout on the Horizon

But one of the biggest current draws is the opportunity to expand as US agriculture undergoes an extended period of crisis and transformation. Over the next 20 years, as the current generation of farmers retires, an estimated 400 million acres will change hands—totaling nearly half of all the farmland in the country.[39] This is coming at a time when the number of young farmers is dwindling and the number of farmers soon-to-retire is on the rise. Already 56.7 percent of all farm operators are 55 or older; those younger than 45 have been shrinking steadily for over two decades and are now less than 20 percent of the total. Farmers 35 and younger now account for a miniscule 5.3 percent (see Figure 1).[40]

At the same time, the United States Department of Agriculture (USDA) reports that the obstacles to those entering the farming business have never been higher. Beginning farmers earn less money, depend more on off-farm income, receive fewer subsidies, and face far greater obstacles to accessing credit.[41] In fact, a recent survey conducted by the National Young Farmers Coalition found that 78 percent of respondents identified lack of capital as their biggest challenge.[42] Tight credit conditions, created in part by the crisis of 2008, are particularly harsh on beginning farmers. The USDA reports that since they are more likely to have a lower income, young farmers are less likely to be able to service their debt using farm profits and more likely to do so through off-farm income and other household assets.[43]

Just as credit has become harder to find and more difficult to manage, farmland prices have risen across the country. Between 2003 and 2013, average land prices rose by 213 percent.[44] No region has been unaffected, but the most dramatic increases are in Midwestern corn belt states like Iowa and Nebraska, where land prices have doubled since 2009 alone.[45] Whether or not farmland has entered a "bubble" is another matter, but one thing is painfully clear: rising asset prices are yet another obstacle to land access. Beginning farmers, caught between tight credit conditions and rising land prices, face a harsher path to ownership than ever before.

PROFILE: WILLY REID IN QUEST FOR LAND

In 1985, after graduating from the University of Vermont with a degree in agriculture, Willy purchased a run-down dairy farm in West Topsham, Vermont. He renovated the 107 acres into a diverse operation that included greenhouses, row crops, a flock of sheep for wool and meat, replacement heifers for dairies, and draft horses to work the land.

When divorce in 2000 necessitated the sale of the land, Willy went to work on neighboring farms, where he managed a herd of beef, set up compost systems, and initiated a diversified vegetable operation.

In 2008, he moved to Washington State where he managed an 80-acre farm that was part of a Waldorf school. The mission of the organization included transforming the land into a biodynamic farm that was both economically viable and sustainably run. Although Willy's vision for the farm aligned with these goals, he lasted there only 18 months. Controlled by school management unfamiliar with farming, Willy lacked the independence to make choices that would have benefitted the farm. According to Willy, ". . . when managed by people in offices who have no understanding of farming, you essentially have outsiders telling you what to do, putting business before natural systems and telling you when and when not to spread compost or order seeds."

In 2010, Willy moved with his new family to Marin County, California. Although the region had the semblance of vibrant agriculture, there were few diversified farms, overgrazing was prevalent, and access to land was challenged by high prices and the paradox of acreage protected as agricultural but not in agricultural use.

Willy's dream to run a farm seemed close the day he came across a listing through California FarmLink for 20 acres near Petaluma. It was owned not by a retiring farmer, but by a couple looking for someone to be a part of their project. For a blended rate of $25 an hour, the job ranged from carpentry, plumbing and electrical work to greenhouse construction, tree planting, machine maintenance, and labor management. Willy signed on, hoping for access to an acre of land on which to grow crops and supplement his income.

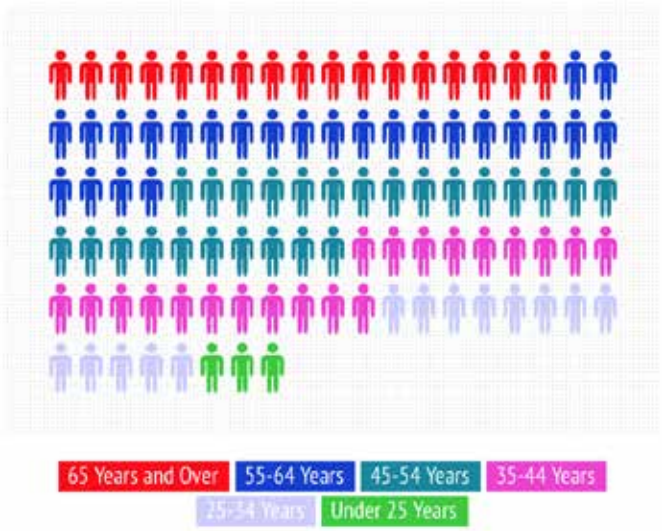
"It is called agriculture, but we have lost the part of culture," Willy says as he describes his travails on the farm. After a little less than a year, after crops were producing and customers were asking for more, the arrangement came to an end, fueled by disagreements over the mistreatment of day laborers, the owner harvesting the night before when Willy needed to supply the farmers market in the morning, and other controversies. Without the help of a contract, Willy knew it was time to cut his losses. The fertility he had imparted to the land, the construction of compost piles, the crops still in the ground, and his own personal investment all stayed behind.

But the passion for land to farm hasn't left him. Willy still hopes to capitalize on the growing demand in Marin for local food, but prices remain essentially out of reach with land costs ranging from $10,000 for parcels of 300-plus acres to $125,000 per acre for parcels of 100 acres and less.

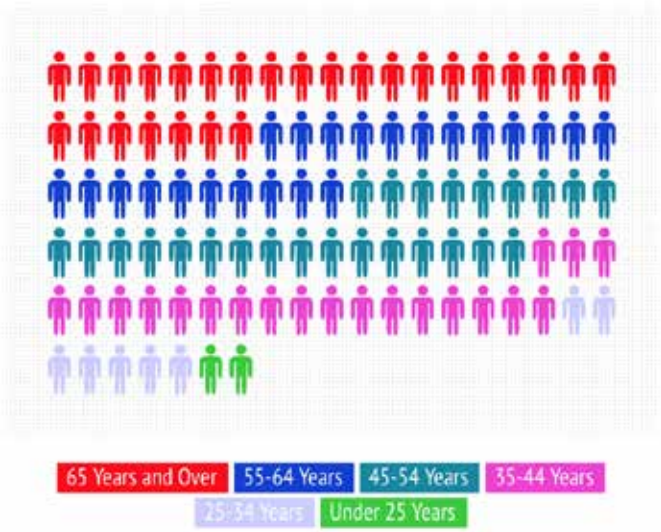
For now, Willy practices low impact agriculture on a small plot owned by a neighboring farmer; he applies a deep layer of compost to aid in water retention and employs chisel plowing. He is trying out different varieties of crops to see what does best under these conditions. He hopes that this will be the start of something that allows him to supply an abundance of food to the community while at the same time using techniques that are mindful of climate, water, and human health.

FIGURE 1: AGING US FARMERS

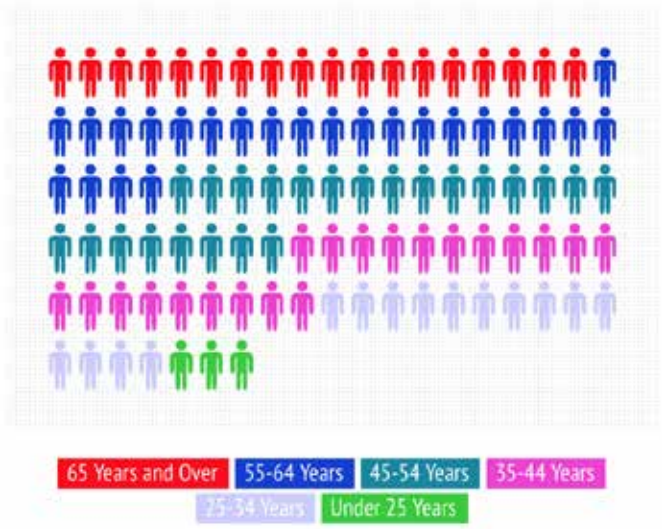
1978



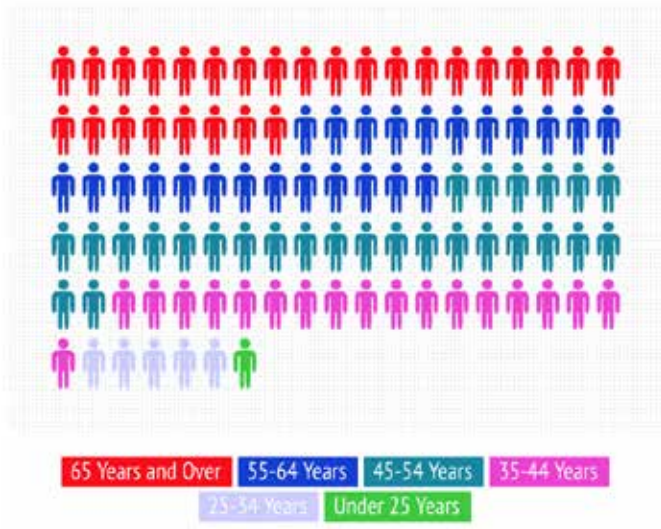
1997



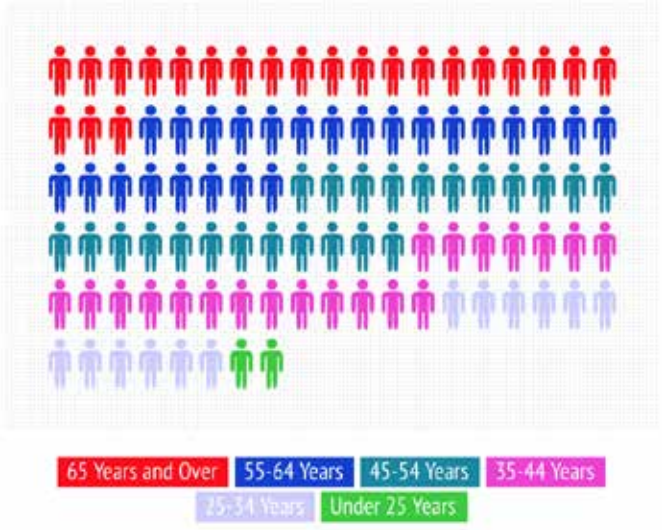
1982



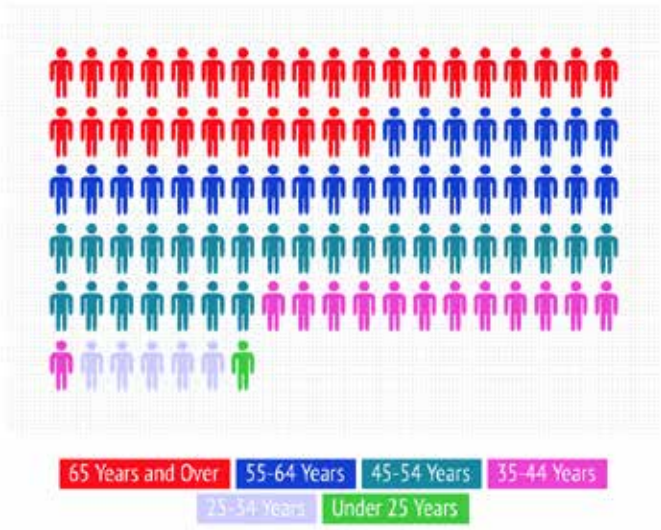
2002



1987



2007



Although in theory the rising price of crops is beneficial to all growers, the rising costs of inputs such as fuel, fertilizer, and seeds mean that most of the benefits of the recent price boom have accrued to a minority of farms with over $500,000 in annual sales.[46] The lion's share of increasing revenue goes to the largest and most consolidated operations, which absorb 88 percent of the income even though they only represent 12 percent of the farms.[47] Less able to exploit economies of scale and suffering from a decline in government payments, small- and medium-sized family farms have continued their 30-year decline and either suffered through the boom or seen no tangible benefits.[48]

According to AEW Capital Management, a leading real estate investment management firm for institutional clients, these overlapping crises of retirement, farm access, and corporate consolidation are an excellent buying opportunity:

US farming is undergoing a major transformation as the industry becomes more professional and consolidates. This consolidation is being driven by a combination of demographics . . . and by increasing economies of scale. As farmers age and retire, there will simply be fewer in the next generation to farm the same acreage. The generational turnover creates opportunity for the more sophisticated and better capitalized farmers to expand their operations. Large-scale farmers enjoy significant savings in input purchasing and overhead absorption, in addition to support for more sophisticated office functions.[49]

In other words, there is a buyout on the horizon. As farmers struggle to compete against more consolidated operations and many retire, there is a chance for institutional investors to expand their presence in this untapped, and, until recently, largely overlooked market.

Case Study Analysis: California's Farmland

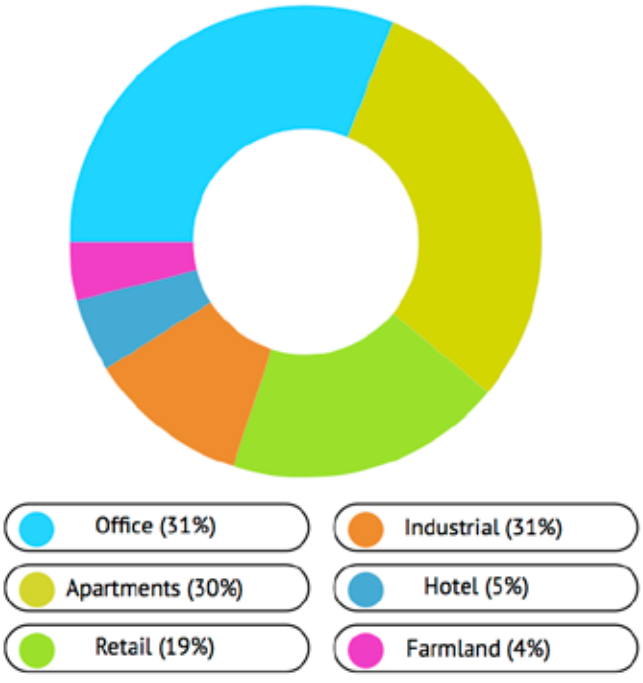
If you combine a generational crisis of retiring farmers, a record jump in farm profits, and as much as $10 billion in institutional capital looking for access to US farmland, then the likely result is a massive transfer of land from farmers to the financial sector. Major agricultural regions across the country have begun feeling the effects of this trend. For instance, a former federal reserve economist estimates that institutional investors and other non-operator buyers are responsible for 20 percent of all farmland sold across the country.[50] Down on the Farm uses examples drawn mainly, but not exclusively, from our home state of California to provide a more focused view of how the land rush is taking shape in one of the most crucial agricultural economies in the world. California is responsible for nearly half of all the fruits and vegetables grown in the US, and by state-level metrics, led the country in 2011 in both agricultural cash receipts ($43.5 billion) and farm exports ($16.87 billion).[51] Exploring the business practices of three of the biggest institutional farm buyers within the state—UBS Agrivest, HAIG, and TIAA-CREF—is a vital first step to understand how their practices might have implications for the agricultural future of the state and the country as a whole.

UBS Agrivest

Nothing Swiss-based UBS does is small. As a global provider of financial services to corporate and institutional clients, it holds a dizzying 2.2 trillion CHF ($2.39 trillion) in invested assets.[52] In theory, farmland is a minor component of its Global Real Estate division, which buys and manages a variety of property types including hotels, offices, and apartments. In fact, as recently as 2010, farmland was only 4 percent of UBS's total real estate holdings in the US (see Figure 2).[53] This may seem small, but that 4 percent equals $516 million in assets—showing that, for actors the size of UBS, even minor commitments are massive investments.

UBS Agrivest offers two options to its clients for buying farmland. The first is to contribute a minimum of $1 million to a so-called "commingled fund," in which money from numerous investors is pooled together to collectively purchase properties. Strictly speaking, the investors are not buying farms; they are buying shares in a Real Estate Investment Trust (REIT) that purchases farms, entitling them to returns commensurate with their contributions.[54] As of late 2012, the fund held $415 million in net farm assets on behalf of 31 clients,[55] a marked jump from 2010 when it held only $192 million on behalf of 22 clients.[56] Public pensions from across the country have embraced this option, from the Army and Air Force Exchange Service, which provides retirement benefits for people who work on stores in military bases, to the police and firefighters of Anchorage, Alaska. In California, the retirement systems of Orange and Sonoma counties are both investors,[57] and Merced County took an exploratory meeting in 2013.[58] In total, the fund owns 50 farms across 14 states covering 55,322 acres.[59] In California, where the fund's main crops are berries and vegetables,[60] it owns 2,949 acres in Fresno, Monterey, Ventura, and Sonoma—all under a title-holding company called Eagle Creek Pacific.

FIGURE 2: UBS ASSETS BY PROPERTY TYPE



BOX 1: UBS AND THE INVESTMENT QUEUE

Agrivest has money problems—not because it has too little, but rather because it has too much. The issue is the so-called investment queue, where funds committed by clients sit until suitable properties can be found. Because of rising farm values, fewer properties seem like good deals to investors. The result is that money languishes on the queue, waiting for bargains to emerge. In 2011, when the Sonoma County Employees Retirement System (SCERA) complained that its money was being spent too slowly, it prompted a reply from Jim McCandless, the managing director of UBS Agrivest. "There continues to be an unprecedented lack of suitable farms on the market for us to choose from. . . ." he wrote. "I know that this is not the kind of news you want to hear, but I am afraid we are at the mercy of the market."[64]

Today, Agrivest remains under intense pressure to acquire farmland quickly. In mid-2012, the queue for the commingled fund stood at $147 million. Midnight Sun, the portfolio it manages exclusively for the ARMB, still had an additional $41 million waiting to be spent.[65] According to McCandless, none of the $100 million invested by IPERS in 2011 will be used until the queues on both of these other funds are dissipated.[66]

This is obviously a lot of money to spend, but emerging evidence suggests that the desire to burn through it quickly is driving Agrivest to be more aggressive and less selective in its investments. In 2012, the commingled fund bought 73 acres of wine grapes in Sonoma County for $4.5 million.[67] The seller, Vineburg LLC, is a relatively minor vineyard owner whose 287 acres in Sonoma represent all of its holdings in the state.[68] Reportedly, this purchase was only possible because Agrivest lowered its standard expectations for rental profits, suggesting that the need to obtain properties quickly is more important than obtaining quality properties.[69]

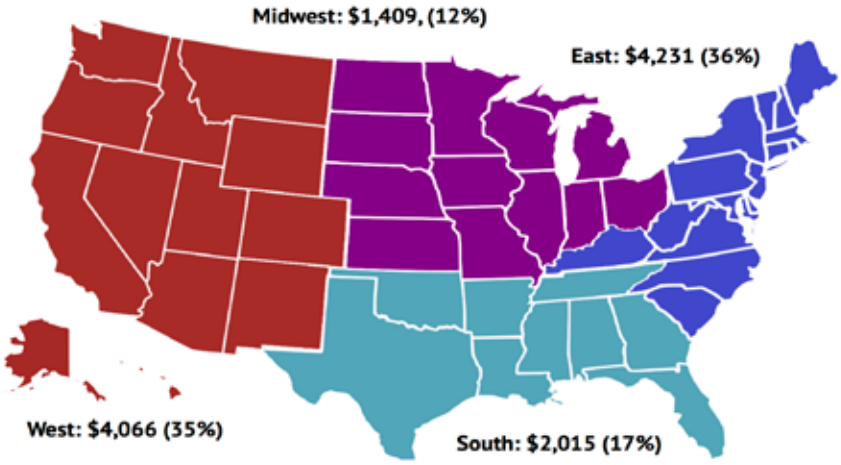
The second option is for those willing to commit upward of $50 million. This buys an exclusively owned farmland equity portfolio tailored by Agrivest to the risk-return appetites of the client. The investor provides the capital, Agrivest purchases and manages the farms, and returns the proceeds back to the investor—minus a management fee. So far, the Alaska Retirement Management Board (ARMB) in 2004 and the Iowa Public Employees Retirement System (IPERS) in 2011 have opted for this service. Although IPERS has yet to see any of its money invested (see Box 1), the portfolio owned by the ARMB boasts 65 farms covering nearly 100,000 acres worth an estimated $397 million.[61] Even though California only represents 4,600 acres of the whole, it still represents 23 percent of the portfolio's total value.[62] Most of the properties, which are spread throughout Kern, Fresno, Tulare, and Monterey counties, specialize in vegetables and permanent crops like fruit trees.[63] All of the ARMB's properties, both within and outside the state, are owned under a title-holding company called Midnight Sun.

UBS MANAGEMENT PRACTICES

When it comes to land management, Agrivest believes in minimizing risk. This is done mainly through leasing strategies that relegate the uncertainties of crop production to professional farm managers. Rather than gambling its profits on commodity prices that could rise or fall, Agrivest prefers the predictable income that comes from renting to tenants, usually through lease agreements that last one to five years.[70] Some of its contracts grant Agrivest additional income depending on farm profits, but in general the only time it is guaranteed crop proceeds is if the lessee fails to pay rent and the crops are seized until they do.[71] To be sure, Agrivest covers property taxes and liability insurance for all of its properties, but that is the extent of its involvement: it is a rent-collecting landlord that openly admits it has no direct involvement in farming.[72]

This critical distance between Agrivest and its own farmland is crucial to understanding its business model. When the Oakland Institute asked about no-till agriculture and other sustainable farming practices, the answer Agrivest gave was simple: "We cannot specify such practices, as we must remain as passive investors or lose tax exempt status."[73] Although in the past it has touted GMO technology as one of the things that makes US agriculture a winning investment,[74] it gave a similar answer when asked about GMO use, saying it was a decision for tenants that Agrivest could not affect either way.[75]

Just as Agrivest minimizes its own exposure to the liabilities of farming, it promises to do the same for its clients. When



UBS's Total US Real Estate Holdings in 2010 (in millions).

the ARMB was first considering agriculture, it knew that certain political risks, such as "water rights and migrant worker issues,"[76] could create legal problems. But Agrivest managing director McCandless assured them that ". . . in 30 years [he had] never experienced a situation where the landowner was found to be liable for accidents or what might happen on the properties."[77] He added that because the farms themselves were deliberately held under limited liability companies, investors' other assets were protected from bearing the financial costs for worst-case scenarios.[78]

BUYING PATTERNS

Generalizing about Agrivest's buying patterns is difficult. Undoubtedly, it has done business with some of the biggest players in global agribusiness. In 2009, the commingled fund bought 1,104 acres of irrigated cropland in Monterey County from Bud Antle, Inc., a subsidiary of the fruit and vegetable processing giant Dole Foods.[79] In 2008, Agrivest paid $230 million for 41 farms—a 75,000-acre addition to the Midnight Sun portfolio.[80] The seller was the pension system for the telecommunications company AT&T, which needed the cash from its farmland portfolio to cover pension obligations after a period of restructurings and layoffs.[81]

Needless to say, neither of these sellers are what most people imagine when they think of family farmers. Still, it would be a mistake to describe Agrivest as a giant that only buys from other giants. The truth is that it purchases land omnivorously—from large corporations, other institutional investors, and small- and medium-sized family farmers.

For example, in 2011 Midnight Sun bought 106 acres worth of row crops in Merced County.[82] When Jim Coelho, the farm's former owner and operator, spoke to the Oakland Institute, he admitted that he had not originally wanted to sell. The land had been in his family for more than 50 years, and he had fought as recently as 2005 to keep it from passing to anyone else. He had especially wanted to avoid selling to a player like Agrivest.[83] Coelho sees agribusiness, with its tendency to consolidate and squeeze out smaller players, as the biggest threat facing family farmers today. But because of the rising cost of inputs and the farm's inconvenient location, he decided it was time to sell. First, he tried to go through a farmland trust, a non-profit organization that buys and preserves farmland, but the wait was too long and the process too complicated. When he finally sold to Agrivest through a broker, he was less than thrilled. "Corporate agriculture bothers me a lot," he said, "but they're the ones with the money."[84]

The reason Jim's land had a target on it is because it was in close proximity to 738 acres that Agrivest had bought in 2008 from AT&T.[85] He comments on the perverse logic that drove the sale from both directions: Agrivest and its tenants have an incentive to expand because "the more acreage, the cheaper the operation" in terms of inputs like fuel, seed, and fertilizer; on the other hand, Jim has an incentive to shrink because the rising cost of those same inputs means he is more effective if he has less overhead.[86]

BETTING THE FARM?

When McCandless spoke to the ARMB in June 2012, he was adamant that there were no speculators playing the farmland market—that is, no major investors were buying properties, riding the increase in value, and then "flipping" them for a profit.[87] In the same meeting, when the ARMB asked him if now was the time to sell its portfolio, McCandless was equally adamant that it was a bad idea. "All of the reasons that the ARMB is in farmland—inflation hedging, diversification, solid income returns, and a fairly steady, predictable trend of return history—are holding true . . . like everyone else who owns farms, [we] like [them] and believe it is time to continue holding onto them."[88]

These comments belie Agrivest's more complicated relationship with farm speculation. To be clear, it has no

strict policy against re-selling its farms for a profit. Every year it does a hold/sell analysis on each of its client properties to determine resale opportunities,[89] and whether or not a sale is executed is at its discretion as the investment manager.[90] Through a freedom of information request, the Oakland Institute learned that in July 2012, Agrivest sold two Midnight Sun properties in Walla Walla, Washington. They had been bought in 2008 for $1.5 million and $730,000 respectively, but were sold in 2012 for $2,797,100 and $1,403,000, garnering a handsome profit.[91]

Even if these sales are isolated incidents, Agrivest still plays a second, more enabling role in farm speculation. This was made clear last December when *The Farmland Investor Letter*, an industry publication, reported that the commingled fund had spent $40.5 million on a 19,255-acre mega-farm in North Texas. The seller was Connecticut-based hedge fund Wexford Capital, which invested $95 million in 2007 and 2008, and once declared that it wanted to ". . . build the Wal-Mart farming operation of the world."[92] After only five years in the market, it liquidated its entire farmland portfolio for an estimated profit of $64 million.[93]

The exact effect of land deals like these is difficult to measure, but speculative behavior like this can only have an upward pressure on farm prices, and thereby a negative effect on beginning farmers trying to purchase their own property. By helping Wexford flip its farmland, Agrivest enables speculation. But because it manages millions in money from public funds and government workers' pensions, it could be said that this speculation is being subsidized by the public sector. This adds a layer of complicity not only to Agrivest, but to taxpayers as well.

BOX 2: FRACKING FARMLAND?

Hydraulic fracturing ("fracking") is a controversial practice that uses highly pressurized water, sand, and often undisclosed chemicals to release oil and gas embedded in shale and other stones deep underground. In states like Texas, Pennsylvania, Ohio, Colorado, Illinois, and increasingly California, the practice is creating tensions between agriculture and energy interests. Farmers who are increasingly hard-pressed to make ends meet see fracking leases as money that cannot be refused. But at the same time, the practice itself poses threats to agricultural production through ground water contamination and the unaccounted for deaths of grazing animals after they encounter fracking fluid.[94]

As institutional farmland investors acquire more land, the possibility of capitalizing on the new energy boom in the United States is not lost on them. As Gary Bader, the chief investment officer for the ARMB put it, "Frequently, there are opportunities to achieve a higher and better use of the property through things like mineral rights and wind power generation."[95]

Indeed, Agrivest has been far from passive when it comes to searching out these "higher and better" uses for farmland. As the ARMB's investment manager, it has the authority to sign mineral leases without the client's consent.[96] In December 2010, it considered a mineral rights agreement on one of its Louisiana properties, but reportedly the deal fell through.[97] In 2006, it leased 360 acres of farmland in Fresno to the Colorado-based Petrogulf Corporation,[98] an energy company that has been cited for no fewer than nine safety and environment violations as part of its drilling activities on federal land.[99]

The California lease was terminated after two years, but another was signed in September 2010 with a company called Montana Oil Properties, granting the right to drill on an 835-acre farm in Weld County, Colorado. The location is no accident: Weld is the site of a massive energy boom, driven in large part by advances in horizontal fracking technology.[100] The county already boasts 80 percent of the state's oil output and 18,000 active oil and gas wells—more than any other county in the country.[101] The absence of state-level permits suggests that drilling on the site has yet to begin, which is not surprising. Leases are often executed as much to lock out potential competitors and preserve minerals for later use as they are for immediate drilling. Nevertheless, the lease guarantees Midnight Sun 19 percent of all oil and gas proceeds,[102] and in 2010 it was expected to double the property's income for at least three years.[103]

Hancock Agricultural Investment Group

The Hancock Agricultural Investment Group (HAIG) has its origins in the farm crisis of the 1980s. Its original parent, the John Hancock Mutual Life Insurance Company, lent heavily to farmers during the agricultural boom of the 1970s, making it a massive landowner when the market collapsed and foreclosure was rampant.[104] The current management team confirms that when HAIG was founded in 1990, some of its first properties were inherited as a result of this crisis.[105]

Today, HAIG is a division of the Canadian insurance giant Manulife, which acquired John Hancock and all of its subsidiaries in 2004 as part of the biggest cross-border transaction in Canadian history.[106] Unlike Agrivest, which gives clients the opportunity to invest in a commingled fund, HAIG operates solely through individually managed accounts. This generally means that investors must commit a minimum of $50 million to buy a farmland portfolio that they then own exclusively.[107] To date, HAIG has bought 290,000 acres of prime US farmland on behalf of its clients, plus 7,000 acres in Canada and Australia worth an estimated $1.8 billion.[108] In California alone, it holds at least 50,000 acres.[109] Its clients run the gamut of the financial sector, including two corporate pension plans, two labor union pension plans, and one private equity firm.[110] But its biggest single customer is undeniably the taxpayer: six public sector pensions have committed millions to HAIG investments. The list includes state employees from Alaska and Florida, teachers from New Mexico, police and firefighters from Dallas, and in California, public employees from both Orange County and San Diego (see Figure 3).[111]

INVESTMENT STRATEGY

HAIG has a particular approach when it comes to investing in US farmland. First, it identifies crops that can be grown competitively in a global marketplace—usually staples like corn and soy or high-value exports like almonds and wine grapes. From there, it chooses the regions where those crops can be grown the cheapest. Then it goes about buying farms in those regions with the best prospects for return. This process—finding crops, finding regions, and finding farms—is what HAIG's former president and managing director Jeffrey Conrad calls its "three-step investment strategy."[112]

The breakdown of HAIG's properties by crop-type shows that it has a strong desire to capitalize on exports, especially those that are popular as luxury goods among East Asia's rising middle classes. In 2011, its two biggest crops were pistachios at 14 percent and almonds at 13 percent (see Figure 4).[113] This is an understandable development, since the export value of the almond industry jumped by 49 percent between 2008 and 2011. China, the largest recipient of US almonds at 236.2 million pounds in 2011, has seen its imports increase by almost 1,000 percent since 2002.[114] India, now the third-largest importer after Spain, has seen

FIGURE 3: HAIG TIMELINE

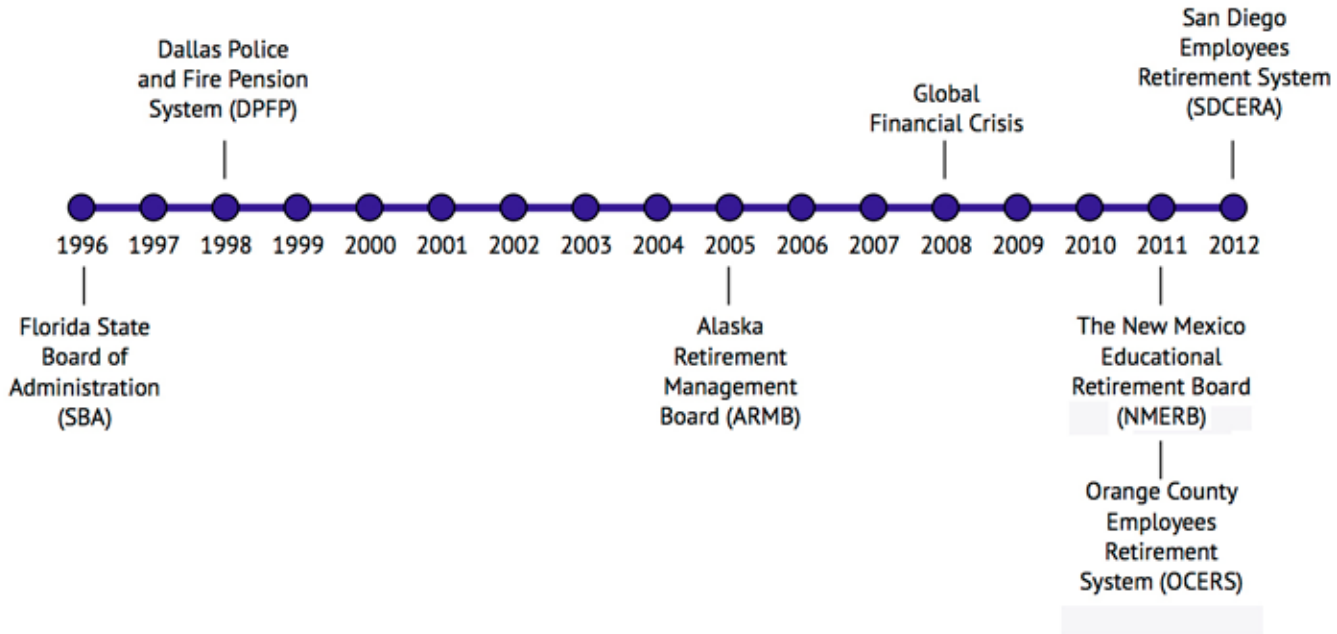
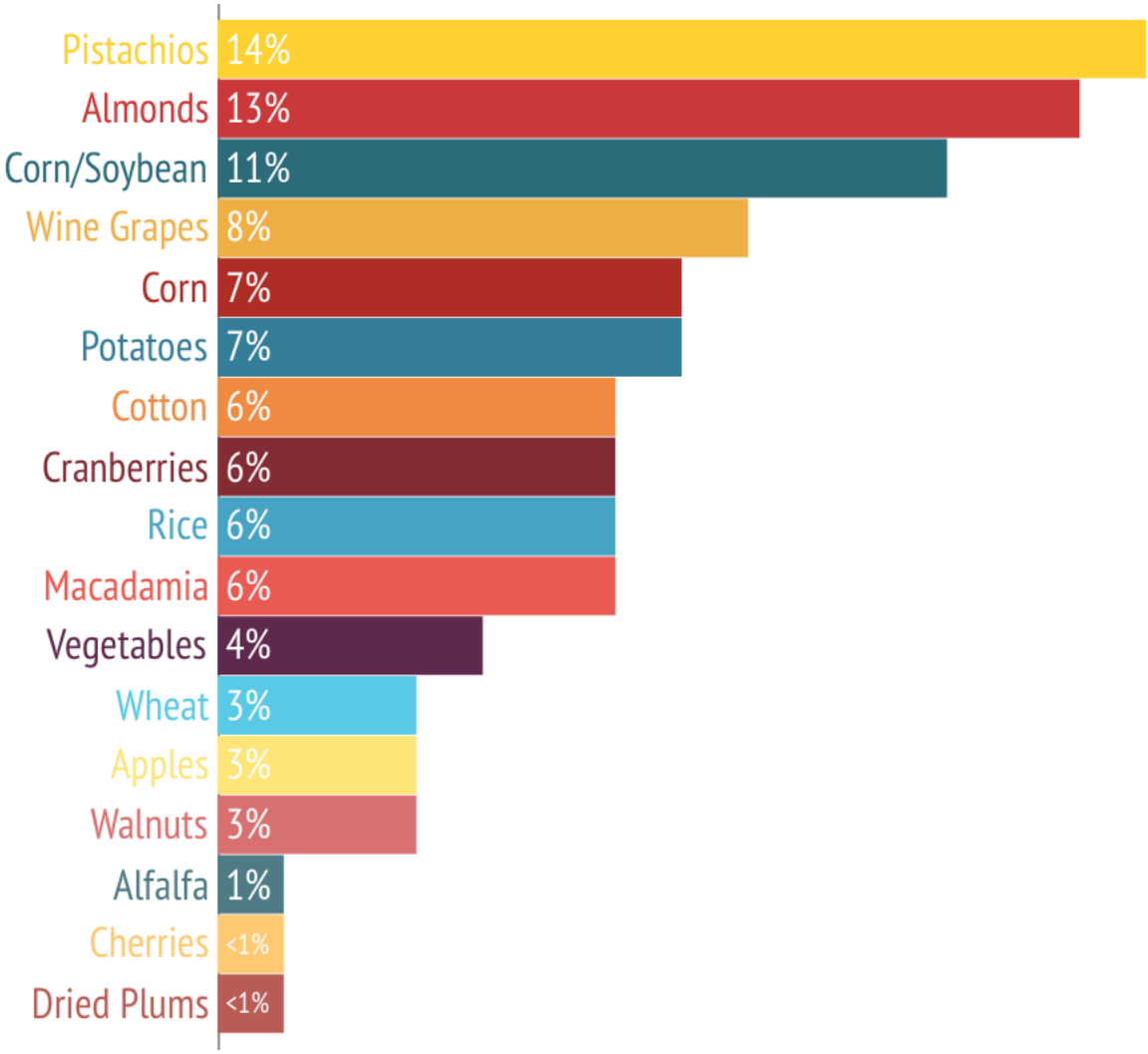


FIGURE 4: HAIG'S CROPS



its imports more than double since 2005.[115] The rise of the pistachio industry is equally impressive. Total exports have doubled over the past six years,[116] while exports specifically to China rose from 1 million pounds ten years ago to 80 million pounds today.[117]

Coincidentally, in the US these two crops are grown almost exclusively in California, and their new success as exports has had an undeniable effect on HAIG's buying patterns within the state. In 2011, HAIG bought 1,886 acres in Tulare County to develop pistachio trees. Technically, the buyer was Goose Pond Agricultural, a title-holding company that HAIG uses to buy farms on behalf of the Florida state pension system. The initial cost was $11 million, but another $8.3 million was spent on trees, property renovation, and irrigation wells.[118] Interestingly, the appeal of these exports is so strong that HAIG is sometimes willing to bulldoze and replace less profitable permanent crops. For instance, in 2009 and 2011 parts of a Goose Pond property in Madera County were replanted with pistachios and almonds after the revenues from wine grapes were deemed too disappointing.[119]

One of HAIG's most recent purchases suggests a growing tension between global demands and domestic needs. In December 2012, it paid $12 million for an 8,500-acre ranch in Siskiyou County, an area of Northern California not historically associated with corporate agriculture.[120] The previous owner, a 71-year old farmer named Dick Schader, exemplifies many of the generational challenges facing US agriculture. He is an operator whose children have no interest in farming and whose retirement helps to further consolidate corporate farm ownership. When the land was still his, he used the 4,700 irrigated acres to grow alfalfa, which largely went to supply dairy operations

BOX 3: CAPITALIZING ON CRISIS?

In 2009, HAIG was brutally honest in a presentation to one of its public sector clients, the Dallas Police and Fire Pension System (DPFP). Although it optimistically predicted growing demand for feed and food after the recession ended, it openly said that, in the meantime, "Financial turmoil has created a buying opportunity for those with true knowledge of the sector."[122] In a sense, this sentiment is not surprising since HAIG candidly acknowledges its origins in an earlier period of financial turmoil (see above). But in the context of today's economic crisis, it does shed an interesting light on a number of HAIG's recent purchases that have capitalized on struggling businesses—both within and outside agriculture.

In 2009, HAIG bought a 164-acre vineyard in Yolo County on behalf of one its clients, a private equity firm called Park Street Capital.[123] The seller was a troubled investment vehicle called the Vintage Wine Trust, which liquidated its holdings in 2008 and 2009 and returned the proceeds to its stockholders—who all reportedly lost on their investments.[124] The Trust had trouble acquiring profitable properties quickly enough, but when it came time for a liquidation sale, its loss was HAIG's gain.

In another case, HAIG bought 351 acres in Placer County to develop a walnut orchard, this time on behalf of the Orange County Employees Retirement System (OCERS). The seller was a real estate developer eager to unload the property because the collapse of the regional housing market made the land itself a dubious investment.[125]

within the region. But under HAIG's management, the land is reportedly being leased to Anderson Hay and Grain, the biggest hay exporter in the country. Instead of growing alfalfa, Anderson Hay and Grain intends to grow the more lucrative timothy, a high-fiber grass exported mainly to Japan, which is favored as high-quality feed for race horses and certain dairy cows.[121]

MANAGEMENT WOES

Unlike Agrivest, HAIG does not exclusively lease its farmland; instead, it combines leasing and direct management strategies. This means that in certain cases, HAIG and its clients can reap the profits of crop sales directly. This usually happens around more profitable permanent crops or on behalf of clients who have higher appetites for risk. (Since direct management means exposure to everything from bad weather to volatile commodity prices, it is inherently riskier than opening a rent check.)[126]

But whether leasing or directly managing, it is important to remember that HAIG outsources the actual business of farming to professional managers. These are companies that perform a range of services, from locating lessees and operators to hiring labor, applying for crop insurance and subsidies, and generally supervising farm properties.[127] As institutional investors acquire more land, companies like these are a crucial link between absentee investors and the day-to-day affairs of the farms they own.

Throughout its entire existence, HAIG has depended on management companies. But over the last several years, Farmland Management Services (FMS) and Vino Farms, its two contractors, have become associated with controversial and even illegal business practices—practices that are made even more troubling when they lead back to public sector pensions, and, by implication, to taxpayers.

FARMLAND MANAGEMENT SERVICES

Farmland Management Services (FMS) handles virtually all of HAIG's properties in the US. It is responsible for acquisitions, lease negotiations, and sales,[128] as well as overseeing the daily affairs of most directly managed properties.[129] With offices in California, Washington, Illinois, Georgia, Texas, Wisconsin, and Tennessee, it is well positioned to service properties across the country.[130] For more than 20 years, the two companies have enjoyed a mutual dependence: FMS has no other major clients, and except for a single vineyard specialist in California (see below), HAIG has no other farm managers.

FARM WOES

Federal court documents tell a disturbing story that implicates both FMS and HAIG in criminal labor violations that took place in Yakima County, Washington between 2009 and 2011. The abuses suffered by over 650 farm workers on three apple properties are a testament to how quickly

accountability can evaporate in the new world of farmland managers and absentee institutional investors.

All three properties were owned by Hancock-affiliated companies, but one was undeniably acquired in 1999 by the Texas Municipal Plans Consortium, a title-holding company that HAIG uses to invest in farmland for the police and firefighters of Dallas, Texas.[131] Reportedly, the farms were leased first to HAIG's long-time partners at FMS, with the understanding that they could operate them directly or lease them again to a third party. They opted for the latter, and the land was subleased to NW Management and Realty Services, a company that describes itself as ". . . a full-scale farm management corporation that makes all discretionary decisions on an agricultural property, including hiring and firing, for a fee."[132] Needless to say, public money from Texas used to buy land that was then leased to one contractor and then leased again to a subcontractor creates a potentially convoluted chain of responsibility.

Locating responsibility became a legal matter in July 2012, when farmworkers filed a class action lawsuit. The suit initially claimed that NW Management was an unlicensed farm labor contractor, a violation of Washington state law that both FMS and the Hancock companies were liable for since they used its unlicensed services knowingly.[133] The other allegations were that NW Management lowered promised wages, shorted workers on their pay, and failed to clearly disclose the actual system of payment in place. Perhaps most disturbingly, NW Management supposedly ". . . allowed [workers] to be intimidated by a supervisor who carried and discharged a firearm in their presence."[134]

In a victory for the farmworkers, a federal judge ruled in June 2013 that NW Management had failed to share required information about wages and working conditions. The court found that farmworkers were entitled to $500 compensation for every violation of state law they suffered, with the likely result that most would receive between $1000 and $3000 each. FMS and the Hancock affiliates, who benefitted directly from hiring an unlicensed contractor, are being held jointly accountable alongside NW Management for the compensation.[135]

Court documents reveal that "virtually all" the profits from the orchards were flowing to the Hancock affiliates;[136] nevertheless, 14 days after the final ruling, the lawyers engaged by Hancock filed to appeal the decision. The outcome is still pending.[137]

The original cause of the lawsuit, the supposed firing of ten workers after they informed authorities that a foreman was brandishing a gun and shooting it at them, is being dealt with separately in a jury trial that was scheduled to begin in November 2013.[138]

VINO FARMS

In 2008, HAIG hired the Lodi, California-based Vino Farms as a property manager.[139] In materials provided to investors, Vino is described as a wine expert with "vineyard management and California vineyard sourcing capability."[140] In addition to owning and managing its own wine grapes, it also works on contract to manage the properties of investors like HAIG. Currently, Vino manages 585 acres in Napa and Sonoma that HAIG purchased on behalf of the state pension system of Alaska, and another 545 acres in San Luis Obispo that HAIG holds on behalf of the US arm of its parent company, John Hancock Mutual Life Insurance.[141]

Vino's record on safety and labor rights leaves much to be desired. In January 2013, the company was fined $200,000 and one of its managers sent to prison for 30 days after a worker was dragged beneath a tractor and killed.[142] The worker died because a foreman had removed a safety switch designed to deactivate the tractor when no one was riding it. Reportedly, the switch was removed because somehow it was causing the seat to overheat. As a result, when the dismounting worker's clothing snagged, there was nothing to stop the still-running tractor from crushing him.[143]

An ongoing lawsuit hints that these safety and labor issues are part of a broader problem. In response to labor shortages in 2007, Vino coordinated with SGLC, Inc., its main labor contractor for the last 30 years, to import farm workers from Mexico under the H2-A visa system. This program grants foreigners temporary work permits for jobs if US citizens cannot be found to fill them. Vino wrote a letter in support of SGLC's permitting application, and when the 178 workers from Mexico arrived, Vino allowed SGLC to house the overwhelming majority of them free of charge at a property it owned called Camp 17.[144]

Here the story takes a disturbing turn. When workers arrived at Camp 17, they found that it was uninhabitable: the water was foul-smelling and "[t]he toilets were backed up, the mattresses were soiled with blood and sweat, no laundry facilities existed, and there were exposed wires."[145] During the workers' stay, the site was reportedly under the management of Mike Harder, a Vino foreman.[146]

When work began, the H2-A employees were sent to Vino properties as well as those of other SGLC clients. The workers allege that, in violation of their contract, they were denied

livable housing, food and rest periods, and nutritional meals. Although they were promised $100 a day and 40 hours of work a week for a period of six months, they were never paid that much and regularly not given that many hours. In fact, the shortage of work was so acute that many returned to Mexico before the contract was over.[147] Other grievances are that they were never compensated for travel to the US, nor for travel time to and between work sites, nor for the significant time they were left waiting for transportation.[148]

In November 2012, Vino tried unsuccessfully to have the case thrown out of court. If a settlement is not reached first, the case will go to trial with Vino defending itself as a joint employer of the H2-A workers and the owner of Camp 17.[149]

FULL DISCLOSURE?

In a February 2013 report to the Orange County Employees Retirement System (OCERS), HAIG was pleased to report two exciting new investments: a walnut orchard in Placer County and a pinot noir grape vineyard in Yolo County. The walnut orchard is directly operated by FMS and the vineyard is directly operated by Vino.[150] Disclosing the legal difficulties of these contractors is obviously not something HAIG is eager to do. As it told OCERS in the same report, "The Company is not aware of any legal proceedings or claims that will have, individually or in the aggregate, a material adverse effect on the business, financial condition or operating result."[151]

BOX 4: PREDATORY LEASES?

In addition to its other clients, HAIG manages a farmland portfolio for the John Hancock Life Insurance Company, the US division of its Canadian parent. One of the John Hancock properties in Madera County was leased to a California company called Triangle T Partners, and then subleased to a Delaware company called S&W Seeds.[152] Because of S&W's status as a publicly-traded company, the full text of the lease is available through filings with the Securities and Exchange Commission (SEC). Considering HAIG uses a broad spectrum of management strategies, one lease should obviously not be taken as the definitive picture of its business model. However, it does provide useful insight into how HAIG maximizes profits from farmland while minimizing its actual exposure to farming.

Interestingly, S&W contracted with the original lessee, Triangle T, for labor and equipment, but paid rent directly to John Hancock for the 2,400 acres. Although S&W was allowed to keep all the proceeds from crop sales, it assumed virtually all the liability for the land itself. It became responsible for maintaining and repairing all the buildings and farm equipment, as well for all utility bills and property taxes.[153] But in light of the recent lawsuit in California and the Washington case (see above), the most problematic aspect of the lease is that it consciously isolates HAIG from potentially negligent or illegal behavior on the part of contractors. It specifically requires that the owner be "[held] harmless" for "all liabilities, obligations, claims, damages, penalties, causes of action, costs and expenses (including, without limitation, attorneys' fees and expenses)"[154] associated with the property. As an added layer of protection, the lease even outsources responsibility for liability and property insurance, requiring S&W to purchase it both for itself and on behalf of Hancock.[155]

TIAA-CREF

The Teachers Insurance and Annuity Association-College Retirement Equities Fund (TIAA-CREF) is one of the largest pension funds in the world with an impressive $542 billion in assets. It provides financial services to 4.9 million people from over 15,000 institutions—predominantly colleges and non-profits—and sits at number 97 on the Fortune 500 list.[156]

Before 2007, TIAA-CREF did not own a single farm.[157] Today, it owns over 500 and is the single biggest platform for agricultural investment in the world.[158] When TIAA-CREF entered the market, it was a signal to everyone that institutional investment in agriculture had entered a new and more aggressive phase.[159]

The first big splash came in 2010 when TIAA acquired a majority share of the Westchester Group, then the largest privately held manager of global farm assets in the US.[160] Today, TIAA holds over $3 billion in farmland and nearly 1 million acres spread across South America, Australia, Eastern Europe, and the US.[161] As of 2012, it held 195,000 acres in the US, as well as 262,000 in Australia and 257,000 in Brazil.[162] After purchasing the Westchester Group for an undisclosed sum in 2010, TIAA announced an additional commitment of $2 billion in 2012 through a joint venture called Global Agriculture, LLC. Although TIAA itself has a major stake in the company, it received additional funding from the Swedish public pension fund AP2 and the British Columbia Investment Management Corporation, a portfolio that mainly serves Canadian public employees.[163] The goal of the venture is to buy farmland in the US, Australia, and Brazil because of their status as grain-exporting powerhouses. The hope is to capitalize on the growing demands of industrial meat production in the decades ahead.

Despite TIAA's meteoric rise as the biggest institutional farm buyer in the world, it is remarkable that farmland is still only about 1 percent of its total assets. This is something that Jim Rickert of Western Agricultural Services, a management company like FMS and Vino that caters to absentee owners, says is inherent in the way institutional investors operate. "If they go from half of one percent to one percent [invested in agriculture], it is very noticeable. It might be hundreds of millions of dollars."[165] Even though TIAA's farm investments are small compared to its total size, its overall size is still so huge that a small investment makes it a big player in the field.

BUYING AND MANAGEMENT

As of July 2012, TIAA held 35,000 acres of California farmland, growing oilseeds, grapes, oranges, lemons, nuts, and avocados. This is its largest single-state presence in the US by more than 10,000 acres, and it constitutes 6 percent of its agriculture holdings globally.[166] In California and throughout the US, TIAA relies on the Westchester Group, its acquisition from 2010, for its property management needs. It searches out viable investments, monitors them after they have been purchased, and negotiates leases and management contracts with farm operators. In general, TIAA prefers a two-tiered management strategy, depending on crop types. For annually harvested row crops like corn and soy, it leases the land and hands all the expenses and profits to the tenant in exchange for rent. But for more profitable permanent crops like fruit trees and vineyards, the land is managed directly and the proceeds from sales are returned to investors.[167]

In the comparatively brief time TIAA has been buying farms, it has been responsible for some of the largest purchases by institutional investors throughout the state. In December 2012, Loma del Rio, one of its listed subsidiaries,[168] bought 2,500 acres of wine grapes in Monterey County. The seller was San Bernabe, the third-largest vineyard company in the

As Heather Davis, a senior managing director at TIAA and one of the architects of its farm investments, put it: "You have growing populations in China and India, and growing middle classes that want to eat meat protein. It takes 5 to 7 pounds of grain to make a pound of meat. If you own grain land in the grain producing countries of the world, you're probably going to make money over the next century."[164]

world.[169] In Kern County, the heart of the Central Valley, the Global Agriculture venture bought a grand total of more than 4,500 acres in 2012 and 2013.[170] The biggest single sale, reported at $62 million for 3,263 acres, came from A&P Ranch, a large-scale grower specializing in pistachios and almonds.[171] These sales seem to suggest that TIAA is reaching into its deep pockets to pursue agricultural economies of scale, mainly by purchasing large properties from established corporate growers.

But again, it would be a mistake to generalize. In May 2013, Sugarloaf Vineyard, another of TIAA's subsidiaries, bought a small 160-acre vineyard in Napa County.[172] This time the seller was Premier Pacific Vineyards, which had entered into a joint venture with the California Public Employees Retirement System (CalPERS), to purchase, develop, and then flip wine properties in 2002. Unfortunately, the venture did not go as planned, and in March 2011 was worth only $122 million, or half the original investment.[173] Similar to HAIG's purchase from the Vintage Wine Trust, this transaction took place because another investor's business venture had failed and it was liquidating its assets.

SUSTAINABLE AGRICULTURE OR INDUSTRIAL MEAT?

Unlike Agrivest and HAIG, TIAA is trying hard to portray its entrance into agriculture as an exercise in good corporate citizenship. In 2011, it helped draft "The Principles of Responsible Investment in Farmland," a document that makes broad promises but that includes virtually no details about enforcing them. The list includes respecting human and labor rights, obeying the law even in countries where it might be poorly enforced, and promoting responsible environmental stewardship.[174] These gestures reflect the fact that TIAA's constituents—college professors and other non-profit workers—are broadly liberal groups that like to be assured that their retirement money is being invested ethically.

As ever, the rhetoric of these policies is worth distinguishing from the reality of actual practice. Even though TIAA specifically cites "mitigating climate impacts" as one of its core environmental principles,[175] its agriculture portfolio is effectively investing in one of climate change's leading causes: industrial meat production. TIAA makes no secret about this. The unapologetic premise of the Global Agriculture venture is to buy land in grain-producing countries in order to exploit the growing demand for animal feed as rising economies start to consume more animal protein.[176] From methane-emitting digestion to pesticides and fertilizers, raising livestock is responsible for an estimated 20 percent of climate change emissions, though one estimate puts the number far higher at 50 percent.[177] Unfortunately, by 2050 the amount of livestock is expected to double from 2006 levels[178] — and it is precisely this unsustainable boom that TIAA is gambling on. Hence the fact that an overwhelming 77.6 percent of all its farmland is growing grains and oilseeds that will be fed disproportionately to animals.[179]

The Future of Farming

Today, only a small percent of US farmland is under institutional ownership, but this is just the beginning of a land rush combined with a demographic shift that could permanently change the face of American agriculture. The crisis of 2008 shook the confidence of many investors in traditional financial markets. But, as the search for new channels of profitability expands into farmland, it seems as though Wall Street has no problem pursuing investments that restore its profitability at the expense of our agricultural heritage.

So far, pension funds have been a crucial source of capital. But the amount already invested in agriculture is dwarfed by the $30 trillion held across all sectors by the pension fund industry.[180] If more is not done to protect family farmers and ensure they have reliable access to land, then the recent spate of land grabs across the US could literally change who owns the country in the decades ahead. The dangers of this trend, in both the short- and long-term, cannot be overstated.

Already, the pressure on institutional investors to put client money to work is enormous. In 2012, the investment queue for Agrivest stood at $288 million while HAIG's stood at $400 million.[181] The pension system of San Diego, HAIG's newest public sector client, has only seen $14 million of its $100 million commitment spent so far.[182] This means that millions more in acquisitions are on the horizon. Coincidentally, it also means that as the current generation of farmers continues to retire, millions of acres could change hands from family farming operations to institutional investors eager to acquire land as quickly as possible.

This rapid expansion has troubling implications for transparency and accountability within our food system. The idea of public money going first to buy farmland that is then being leased (and possibly leased again) to other contractors represents a clear outsourcing of responsibility. When these contractors are implicated in illegal or immoral activities, the behavior reflects back on the public institutions that originally provided the capital. But, as the cases of FMS and Vino Farms show, it can be incredibly difficult to enforce good and even lawful behavior down an entire line of middlemen and other managers.

As these new investors rush to capitalize on high-value export crops, sustainability is another concern. The ongoing expansion of local and regional food systems is one of the most promising recent developments in US agriculture. It provides a stable market for farmers and limits the climate cost of carbon-intensive transportation. Unfortunately, investors are less enthusiastic about going local and more enthusiastic about globally integrated markets for agricultural commodities. If the most profitable place to unload luxury items like pistachios and timothy grass is in East Asia's rising economies, then investors see that as the best place for them to be sold, regardless of the carbon cost of transporting them.

But speculation is one of the most worrying, and well-founded, concerns about the new land rush. If the financial sector is buying farmland only to flip it later, it could put upward pressure on land prices and make it even harder for young and beginning farmers to become owners. Wexford Capital has already gone this route, and the Dallas Police and Fire retirement system admitted that it aims to eventually sell many of its properties, ". . . hopefully producing a significant gain on investment."[183] A recent survey of more than 40 farmland investors suggests a strong speculative impulse. A majority of them do not expect crop sales and rental payments to contribute more than 50 percent to total returns. Instead, they see capital gains—the increase in an asset's value that is only realized upon its sale—as the main source of profit.[184] This raises the disturbing possibility that the new wave of institutional investors wading into US farmland have no long-term interest in the well-being of the land, and may only be entering the market in order leave it later for a profit.

Even if institutional investors are not focused exclusively on buying land from the retiring generation, the biggest challenge faced by small- and medium-size farmers is still the distorting role of large corporate operations in the marketplace. Because an increasingly small number of actors control the trade and processing of food—three corporations control 90 percent of the global grain trade, four companies control 60 percent of the poultry industry, and three control 90 percent of the beef industry—smaller operators are often on the receiving end of abusive monopolistic practices.[185] This encourages the growth of more consolidated farming operations that are able to deal more efficiently with these large processors, while at the same time leaving smaller players struggling to negotiate a fair price.

In effect, the buyers driving today's land rush are part of the same broader trend of corporate agricultural consolidation,

a process that is making it far harder for small farmers to participate fairly in the marketplace.

Pushing Back

Contrary to popular belief, the steady decline of young farmers in recent decades is not simply a matter of declining interest. The rising generation is fighting for food justice in a variety of ways through a variety of movements. The idea that healthy, sustainable food is a basic human right runs through many of today's most contentious struggles, from GMO labeling to campaigns against urban food deserts. Even the allegedly diffused Occupy movement—through offshoots like Occupy Monsanto and Occupy the Farm—provides younger activists with a vehicle for critiquing corporate agriculture and incubating local and regional alternatives to it. As part of the burgeoning food justice movement, there is undeniably a generation of prospective farmers eager to return to the land and work it responsibly. The problem is access, not enthusiasm.

In order to translate this enthusiasm into action, new institutional structures must be built—and older ones updated—to help foster intergenerational links between farmers and ensure reliable access to farmland. More needs to be done, but the good news is that some efforts are already underway to insulate farmers and farmland from the new American land rush.

PROFILE: PAULA AND ADAM GASKA OF MENDOCINO ORGANICS

Paula and Adam Gaska began Mendocino Organics in 2008 out of a desire to work the land responsibly and provide nutritious food in local communities. They own the farming business together, but not the land itself. The 100 tillable acres and 2,000 acres of rangeland that they work In Northern California are rented from four separate landlords. Although they entertain the idea of becoming owners one day, they are happy in the short term as tenants. Equipment and inputs are expensive, and without much credit history or off-farm income, they are glad to not tie up capital by purchasing property.

The farm operation itself is remarkably self-sufficient. They make their own hay for the sheep and cattle and grow feed grains to feed directly to their pigs. During the winter months when the sheep are barned, the manure is saved to fertilize a vegetable operation that has grown everything from arugula, cabbage, and kale to garlic, tomatoes, and fennel. As Adam says, less reliance on industrial inputs makes for a more sustainable and resilient operation. "Most people don't realize that the fertility that most modern-day farming relies upon is derived from petroleum, that it's dependent on outside inputs to prop it up that are increasingly going to becomes less available and more expensive."[186]

Paula confesses that they are leery about traditional sources of financing. They dislike the idea of going to a bank with a "black and white" view of the business world that would not appreciate or even understand their model. She admits, though, that their view of traditional financing is skewed by their access to more informal lending structures—an appealing option for many beginning farmers confronted with tight credit conditions. Paula and Adam have benefitted from low- and zero-interest loans from one of their landlords and other members of the community. In a direct sense, the farm continues to survive because of local and regional support. They run a Community Supported Agriculture (CSA) project that provides people who pay in advance vegetables for six months out of the year. This gives all 50 members a direct stake in the farm. The local school district has expressed an interest in their produce, while restaurants as far away as San Francisco, like Bar Agricole, purchase their products.[187] As Paula puts it, "For us, we have all these obstacles in terms of land access and capital, but it's through the support from our community that we're able to develop our farm and grow great food."[188]

PROFILE: THE SWANTON BERRY FARM

The Swanton Berry Farm in Davenport, California is an inspirational experiment in alternative strategies for farm access. It is a trailblazer in several respects: in 1997 it became the first organic farm ever to sign a union contract with the United Farm Workers (UFW), and in 2006 it became the first ever US farm business to allow its employees to purchase shares in the business, clearing the way for a more diffused, democratic model of ownership.[194]

Since Swanton was founded in 1983, its main appeal has been strawberries, which it started growing organically in 1987. To protect the long-term health of the soil, only about 70 to 90 of the farm's 200 acres are in production during a given year, while the rest is left fallow.[195] Brassica plants like broccoli and cauliflower are grown in rotation not because they are especially profitable, but because they help to protect strawberries from soil diseases to which they are particularly vulnerable, thereby limiting the need for pesticides.[196]

Bill Kennedy, sales manager at Swanton, says that the idea of treating the land well through organic farming is a natural extension of treating workers well through fair labor practices. "What works for us to some extent is we've been at it for over 20 years," he says. In fact, most corporate operations remain profitable by maximizing the use of available land through industrial farming techniques and by minimizing labor costs—in other words, by doing the opposite of what Swanton does. The combined challenges of growing organically, having enough land to responsibly rotate the crops, paying a union wage, and contributing to pensions and health insurance--all the while finding enough customers to turn a profit—mean that the Swanton model is not easy for beginners to replicate. As Kennedy puts it, "People may admire us, but they do it from a safe distance."[197]

Nevertheless, the idea of a farm owned collectively by its workers adds an interesting perspective to the traditional paradigm of farm access, which usually focuses on how individuals or families can acquire their own land.

Farm Linking

Since its inception in 1999, California FarmLink has worked to support beginning and socially disadvantaged farmers—mainly by helping them to secure land and capital. The program offers an online database designed to link emerging farmers with prospective sellers and landlords, as well as counseling services and workshops to help new farmers manage and develop their businesses.[189] For older farmers, it even offers estate planning to help ensure land remains in farming as it passes between generations—not a bad idea considering 40 percent of farmers have done no formal succession planning whatsoever.[190] Although not a broker, California FarmLink has brought together 125 linkages between owners and growers, often helping to negotiate lease terms that ensure reliable tenure.

Besides the practical aspect of matching farmers with land, California FarmLink runs a micro-lending service designed to support beginning farmers with operating expenses and equipment. As part of its commitment to serve underserved communities, 80 percent of loan clients are Latinos.[191] Although it can offer as much as $250,000, its average loan is only $24,000 and is generally paid back in one to three years. This speaks to something that executive director Reggie Knox sees as crucial: there is relatively little capital available for small-scale farmers in amounts less than $100,000.[192] But, for beginning farmers, these minor injections of capital for equipment or land improvement can be vital to later success—and more immediately valuable than larger, longer-term loans.

Groups similar to California FarmLink, generally organized on a state or regional level, are gaining visibility across the country. According to the National Farm Transition Network, some form of farm linking service is currently active in 22 states.[193]

Alternative Financing

In the aftermath of the 2008 economic crisis, the market for farm credit contracted dramatically. A recent survey found that 85 percent of farmers face greater difficulty accessing credit. This includes 70 percent of respondents who claim that commercial loan rejection rates have risen, and 52 percent of respondents who claim that there is a "significantly higher" demand for farm credit counseling services. The USDA's Farm Service Agency (FSA), which is generally where farmers turn for credit when the private sector fails them, is reportedly experiencing a 56 percent

increase in demand for its direct loan services.[198] But once again, the brunt of the crisis is borne by beginning farmers, 78 percent of whom report that access to capital is the single biggest challenge they face.[199]

As credit becomes tighter, new models are emerging to help farmers—beginning and otherwise—secure capital from non-traditional sources. In recent years, the Slow Money initiative has developed to provide small farmers and other local food entrepreneurs with capital in the form of grants, investments, and low- or no-interest loans. Through seventeen local chapters and a series of regional and national fundraising events, Slow Money has successfully gathered more than $30 million and disbursed the funds to 220 local food businesses.[200] Since it is often the local groups themselves choosing where capital is allocated, the project adds a democratic component to lending that traditional investors generally lack.

New online platforms, through sites like Kickstarter and IndieGoGo, have revolutionized small business finance by allowing entrepreneurs to appeal directly to consumers for funds. In food and agriculture, the idea of crowdsourcing—customer-supported loans or donations—is allowing communities to invest in the kinds of sustainable food systems they would like to see flourish. Slow Money, through a new project called Gatheround, enables potential investors to watch local food entrepreneurs pitch their businesses online and, if convinced, donate money directly as a three-year, zero percent loan.[201] Even the original crowdfunding platforms like Kickstarter, which were not designed with agriculture in mind, are seeing increased participation from farmers as traditional sources of lending dry up. In September 2013 alone, Kickstarter had 620 farm-related projects seeking funds; many of these were looking to trade cash donations for repayment with in-kind farm products, ranging from fresh eggs to grass-fed beef.[202]

Some financing is obviously better than no financing, and the $30 million disbursed by Slow Money since 2010 certainly made a difference to its recipients.[203] But the support these platforms provide is often small even by small business standards. It is an ideal tool for one-off purchases—a tractor or a grain combine, for example—but if truly secure tenure requires land ownership, these alternative financing models are simply not designed with that purpose in mind.

Food Commons

Another emerging model seeks to integrate land access, credit access, and local food availability. Sponsored by a national non-profit called Food Commons, the project aims to acquire and preserve farmland, provide financing to farmers and other local food businesses, and help establish cooperatively managed infrastructure for local food processing and logistics.[206] This three-pronged approach is meant to counter agribusiness by providing an integrated presence across the entire food system value chain. Interestingly, Food Commons hopes to set aside "a large percentage" of the preserved land for long-term leasing to beginning farmers and "individuals who are not from farmland."[207] This is meant to increase the prospects for small farmer success by providing a shortcut around onerous debt obligations.

Admittedly, Food Commons only began in 2010 and remains in an early, experimental stage with pilot projects underway in Fresno, California, and Atlanta, Georgia. However, the organization has set the ambitious goal of controlling 25 percent of the $100 billion regional food market projected to exist in the US by 2020.[208] The biggest current challenge is gathering the funding to cover coordination, leadership-building, and other development costs.[209] That said, Food Commons does have long-term plans to build a series of interlinked regional food systems. This is to be done by acquiring a full spectrum of resources needed to produce, process, distribute, and sell local food—including farmland, vegetable and meat processing facilities, warehouses, retail stores, and restaurants.[210]

The Agrarian Trust

The Agrarian Trust initiative was launched in 2012 with the specific purpose of ensuring reliable land access for the rising generation. It was co-founded by the Schumacher Institute for New Economics, a longtime pillar of the local economy movement, and the Greenhorns, a grassroots organization working to support and recruit young farmers. The Agrarian Trust itself is a national network that seeks to identify and spread innovative models that enable beginning farmers to find land and work it sustainably. As a coalition of farmers and farm service providers, it focuses on models of land access, transition, and financing designed to ensure long-term tenure for farmers.[211] In partnership with allied organizations, it is currently supporting and publicizing more than a dozen land access pilot projects, including a non-profit revolving loan fund that caters to sustainable and beginning farmers, policy changes to encourage urban agriculture, and a new framework for legal support to ensure that preserved lands remain in farming.[212]

A core component of the project is regional training programs that are designed to transfer expertise between generations.

By introducing new farmers to topics like transaction law, lease negotiation, and alternative community financing, the Agrarian Trust hopes to embolden the rising generation by giving them the practical means to duplicate land access models that have been successful elsewhere.

According to Severine von Tscharner Fleming, one of the founders of Agrarian Trust, the task is not simply providing new farmers with the legal and financial tools to access land; the task is to ensure that new farmers are able to both access land *and* steward it responsibly as part of more sustainable regional food systems. As she puts it, "Getting serious about long term security on the land . . . and rebuilding the infrastructure to feed ourselves regionally is a generation-long project—and Agrarian Trust aims to provide gold standard . . . models proven [to work] elsewhere in the American context."[213]

State Innovations

As activists and non-profits pioneer new models for farmland access, exciting opportunities for policy innovations remain at state and federal levels. For example, Nebraska and Iowa are using their respective tax codes to help foster links between beginning farmers and the retiring generation. In both cases, if landowners lease to beginning farmers

PROFILE: OMACHE FARMS

This is Jason and Margaret Parsley's fourth growing season on Omache Farm, a 36-acre operation just outside of Pullman, Washington. On an acre and a half, they grow a range of vegetables—including kale, bell peppers, winter squash, and tomato—that are then divided between farmers markets, local restaurants, and their 25-member CSA. The rest of the business is pastureland, where they currently have 90 sheep, a few hundred egg-laying chickens, and 34 pigs, and hope to double the number of pigs in the coming year.

Jason and Margaret lease all of their land, but most of the rent is not paid in cash; instead, they have a landlord who allows them to improve buildings and fences on the property as a sweat equity payment in kind. Jason says that they would love to expand their operation and eventually become landowners, ". . . even if it started as just small marginal ground, that would be amazing."[204] But he is also aware the difficulties that would pose: lenders, he says, whether they are federal agencies or credit unions, prefer dealing with wealthier farmers who have assets that can be profitably resold if the loan goes sour.

When they began Omache Farm five years ago, Jason says they benefitted from an "angel capital" gift from his grandmother. This has led him to believe that micro-loans—small injections of low- or no-interest capital—should be expanded and formalized as a policy to help beginning farmers. "For people just getting into farming, $1,000 to $5,000 . . . makes a much bigger difference to get a small farm going than the $100,000 or $250,000 the new farmer program has through the USDA."[205]

Jason and Margaret recently paid for a hoop shed—an outdoor plastic structure for vegetables—with grant money from the USDA, but the single biggest policy change Jason would like to see is reforming how research and education about farming is conducted. In the past, he worked at a land grant university in an agriculture lab. There, he learned that too much of the work was geared toward the big, corporate operations that were often the funders of the research itself. He claims that if there is to be a future for small-scale farmers revitalizing rural areas, then a new agenda for agriculture research and education needs to be tailored to support small farmers, particularly those who do not come from farming backgrounds.

the money they receive in rent is eligible for tax credits. In Nebraska, depending on the type of lease, landowners can deduct up to 15 percent of the lease's value from their state income tax,[214] while in Iowa the maximum deduction is 17 percent. So far, in Iowa alone, the program has issued over $20 million in tax credits to over 1,100 participants since it was founded in 2007.[215] According to the Nebraska Department of Agriculture, the state's version of the program was designed ". . . to provide an incentive for a farmer who is retiring or who wants to cut back on his or her operation to rent to a beginning farmer. . . . The hope is that the experienced [farmer] will be a mentor to the beginning farmer so his or her chances of success will increase."[216]

Federal Support

At the federal level, some policies designed to support young and beginning farmers already exist. One of the most prominent is integrated as part of the USDA's Conservation Reserve Program (CRP), which provides farmers with yearly rental payments if they ". . . agree to remove environmentally sensitive land from agricultural production and plant species that will improve environmental health and quality."[217] The contracts generally run 10 to 15 years, but when they end, retiring farmers have the opportunity to secure an additional two years of rent if they sell or long-term lease the formerly conserved land to a beginning or socially disadvantaged farmer.[218]

In theory, the USDA also lends a huge amount of money to beginning farmers through the Farm Services Agency (FSA). In 2011, it provided 13,384 direct loans to beginning farmers, totaling $1.1 billion and accounting for nearly two-thirds of all its direct loans that year.[219] On the surface, this seems like a great deal of money, but a closer look at the numbers tells a different story. The most the USDA can offer through its ownership loan program is $300,000. In regions like the Midwest and the Great Plains, where land prices have spiked a remarkable 125 percent and 80 percent, respectively, in the last four years alone,[220] this is simply not very much money. In order to create a meaningful path to ownership through lending, the USDA must raise its lending cap to keep pace with the record rise in farm prices.[221]

Then again, there is some evidence that federal loans are a less-than-accessible path to ownership for many farmers. The USDA has a long history of discriminatory lending practices, and is already set to spend billions settling legal claims brought by women, African Americans, Latinos, and Native Americans for that very reason.[222] Even today, the USDA is widely seen as discriminating based on business practices. The local FSA officers responsible for processing loans are often unfamiliar with community-based farming models like CSAs, or simply biased against sustainable growing practices like organic. This makes it far simpler for farmers to access credit if they adopt standard industrial agriculture practices and become commodity producers. In fact, between 2008 and 2009, the FSA gave over $260 million in direct loans and loan guarantees for the construction of new buildings at poultry and pork facilities—with much of the money likely going toward the quickly consolidating pork and chicken factory farm industries.[223]

Future Directions

Another program, passed as part of the 2008 Farm Bill, made funding available to train and educate young and beginning farmers. The Beginning Farmer and Rancher Development Program (BRFRDP) allows community organizations to compete for grant money to provide a range of services, including ". . . financial and entrepreneurial training, mentoring, and apprenticeship programs, as well as . . . education, outreach, and curriculum development activities to assist beginning farmers and ranchers."[224] The program has disbursed $70 million and supported 145 projects since 2009—a good start, but hardly a massive commitment as federal budgets go. Sadly, the program's entire future is in doubt: funding expired in 2012 when Congress failed to renew the Farm Bill, and House Republicans proposed cutting the program's funding by nearly 50 percent in budget negotiations over the new farm bill.[225]

The unfortunate truth is that the federal government's support for rising farmers is not commensurate with the severity of the farm access crisis. Today, a promising piece of legislation—the Beginning Rancher and Farmer Opportunity Act of 2013—is languishing in committee with virtually no chance of becoming law. If passed, it would expand training programs for new farmers, provide grant money for high value-added farm products like cheese and salsa, and ease the eligibility requirements for beginning farmers applying to the USDA for farm purchase loans.[226] But if Congress cannot even pass a viable Farm Bill, the single most important piece of agricultural policy under its authority, then it seems unlikely that a bill specifically targeted at beginning farmers stands a chance in Washington. This would seem to suggest that the most promising future for farm access must emerge at the local level, either through state policies or nascent grassroots strategies.

Conclusion

As new business models designed to support young farmers continue to proliferate, it is undeniable that we are experiencing a remarkable period of policy experimentation and innovation. Some of these models, like the various Farm Link organizations, already exist and need to be expanded, while others, like the Food Commons, need to be built from virtually nothing. Undoubtedly, more ideas will emerge as momentum continues to build behind the local food movement and as awareness spreads about the aging US farmer population. But one thing is certain as these debates about access and generational divides continue: the tenor of the discussions needs to change.

The entire issue of farm access needs to be reconsidered in light of the financial sector and its increasing interest in US farmland. We need to find ways to both increase the number of young farmers and to connect them with the land and capital they desperately need. Failure to do so could have dire consequences. If more is not done to build a new generation of farmers with a vested interest in shepherding the land and providing people with healthy food, then waiting in the wings are buyers with decidedly less noble intentions. These institutional investors with billions in capital, who are more interested in global markets than in local food, are more inclined to hand the land and all its affairs over to independent contractors, and may just as easily resell the land for a profit rather than remain as its long-term stewards.

Millions of acres across the US are on the verge of changing hands. Who gets the land, and what they do with it, are still open questions.

A Note on Sources

The property transactions cited in this report were drawn from a variety of sources, including local newspapers, county assessor offices, county recorder offices, and a California-specific website called ParcelQuest that consolidates county-level data on property sales, previous owners, and transaction costs. Specific properties are cited using their county-specific Assessor Parcel Numbers (APNs) and can generally be cross-checked easily online. If ParcelQuest was used to acquire owner or sale data then it is cited as such in the endnote.

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