Agri Investor

Chicago Forum 2019

News compendium

PEI

Exclusive content to prepare you for the discussions at this year's Forum

Letter from the editor

A pessimist could be forgiven for fearing this year's flooded planting conditions in parts of the US threatened to become the straw on the back of an agricultural investment market already beset with challenges of long-term overproduction, kaleidoscopic consumer tastes and bewildering upheaval in global trade.

Despite those persistent challenges and the very real economic stress facing some producers, the past year has shown how agriculture continues to present attractive investment opportunities that are drawing a widening array of capital.

From pension funds continuing their evolution into direct operators and private equity's bold-faced names carving their niche as they enter impact investing markets to strategic venture units and end-users looking for more control over their supply chains; agriculture is finding its way into a variety of investors' portfolios.

As it does, managers will be expected to produce credible strategies for managing agriculture's uniquely potent mix of environmental, social and governance risks alongside returns that can compete within real asset allocations and elsewhere.

Within the US, institutions are continuing to build their presence within farmland markets as other private investors explore varied opportunities stemming from changing consumer tastes and the development of new technologies. Looking ahead, investors planning for the long-term will have to contend with the unpredictable effects of changes to interest rates, regulation of cannabis and groundwater use and ongoing political crisis in the United States.

Further afield, agriculture's key role within many of the broad societal aims laid out in the UN Sustainable Development Goals that frame many newly-minted impact strategies has helped create interest in the asset class. Whether newcomers' market-rate return targets can be achieved through investments long dominated by government-backed developmental finance institutions remains to be seen.

The 2019 Agri Investor Chicago Forum will provide an opportunity for observers and participants in these markets to compare notes about their approach to a diverse investment landscape in an intimate setting suitable for both introductions and deal-making.

An eclectic audience will include representatives with institutional, academic and on-the-ground perspectives on an asset class lying at the heart of so much human activity.

From an examination of recent developments in timber markets to in-depth panels focused on water, agtech, and other topics, the 2019 Agri Investor Chicago Forum will provide learning opportunities for both industry veterans and newcomers.

Chris Janiec, Americas Editor, **Agri Investor**

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Chicago Forum 2019

November 12 -13 | Renaissance Chicago Downtown Hotel

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Equilibrium

Lara Banks
Managing Director, Natural Resources
Makena Capital Management

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Viki Radden
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Honor Harvest

Anna Rath
President, Chief Executive Officer
Vestaron Corporation

Jim Schultz
Founder
Open Prairie

Jamie Shen
Chief Investment Officer
PGIM Agricultural Investments

Asher Troppe
Chief Executive Officer
Tress Capital

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Agtech investment focus shifts towards science as market scales

Describing the firm's recent Agtech Investment Review, Finistere Ventures' Arama Kukutai tells Agri Investor he expects private equity investors to acquire leading start-ups and pursue roll-ups as the market continues to develop.

By Chris Janiec

The role of private equity in agtech is likely to evolve as investors' focus shifts from the search for promising start-ups towards scaling the market's early leaders, according to the author of a recent market overview.

Speaking to Agri Investor soon after publication of its 2018 Agtech Investment Review, Finistere Ventures partner and co-founder Arama Kukutai said more capital is flowing to a cohort of companies that are through the start-up phase and are now looking for capital to scale-up–revenue, research and development or their ability to meet regulatory challenges.

"We're going to see more private equity activity as roll-ups and acquisition of start-ups," said Kukutai."

This is an opportunity for them to acquire technologies that fit into their arsenals. I also think we are going to see more capital flow into the successful start-ups acquiring technology that round out their product portfolios."

In the report, Finistere described how multiple companies across the lifecycle were able to successfully raise capital last year amidst a market it labelled as scaling at a sustainable pace. It noted 2018 saw a gradual shift in focus from the inputs management, imagery and precision ag sectors that garnered early attention from investors towards plant sciences and animal technologies, which the report said had historically been underinvested.

"Not only is there plenty of capital within venture and increased interest in agtech in general, but enough of both to keep funding even fledgling start-ups with their first institutional round of fining. Such supplying of the pipeline of venture-backed agtech companies now will entail a need for future funding," the report's authors wrote.

Last year, several sovereign investors also become more active in agtech, said Kukutai, highlighting investments by funds connected to Ireland and Denmark as well as Temasek, a sovereign wealth fund affiliated with Singapore. Kukutai highlighted that these relatively new agtech investors have been joined recently by a growing number of traditional technology companies pursuing agtech investment.

"We have very large checks getting written by non-traditional investors, primarily because they think the company has an opportunity to really disrupt some aspect of the agtech or foodtech supply chain," said Kukutai. "This is sort of the transition from start-up to scale-up," Kukutai summarized.

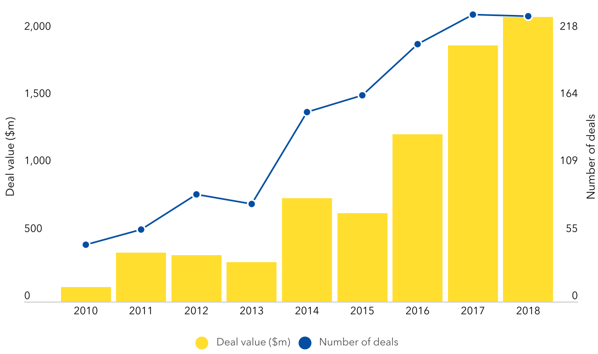
One the reasons the traditional hesitancy of life science companies to get involved with agtech is beginning to fade, said Kukutai,

is that the regulatory costs of compliance has started to drop.

Falling costs for gene-editing technologies such as CRISPR and cloud computing storage that were prohibitive just five years ago, according to Kukutai, are enabling agtech companies to pursue new opportunities in innovative plant science and, increasingly, animal science.

MARCHING ON

An upswing in late-stage investment activity during the fourth quarter helped bring 2018's total agtech fundraising above the previous year's for the fourth consecutive year, according to Finistere and Pitchbook.



Source: Finistere Ventures / Pitchbook

"We're seeing start-ups, for example, addressing the allergenicity of food; looking to use gene editing to remove the allergic effect of certain classes of food, whether it be lactose, gluten or nut allergies," said Kukutai. "Tools are available to start-up companies that give them the ability to scale. That's true in agriculture as much as it is in other, more established or better-known, tech sectors."

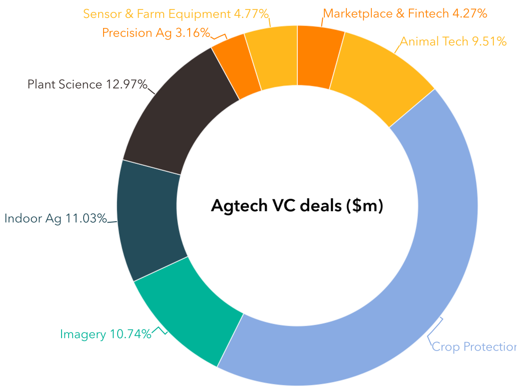
Helped along by several attention-grabbing investments of $100 million or more, Kukutai said sub-sectors such as digital agronomy, hardware and equipment have seen a steady pace of investment that is likely to only be propelled by ongoing consolidation in the wider ag market.

"Consolidation is going to continue to throw off opportunities for private equity to do both roll-ups and apply disruptive technology to traditional businesses," said Kukutai. "As that plays out, those companies are going to need more technology drivers to drive new business; you can only cost-save your way so far, you actually need to produce new products for customers."

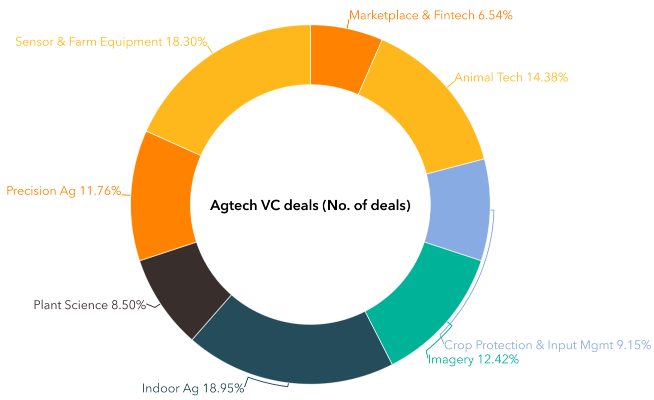
SHIFTING TOWARDS SCIENCE

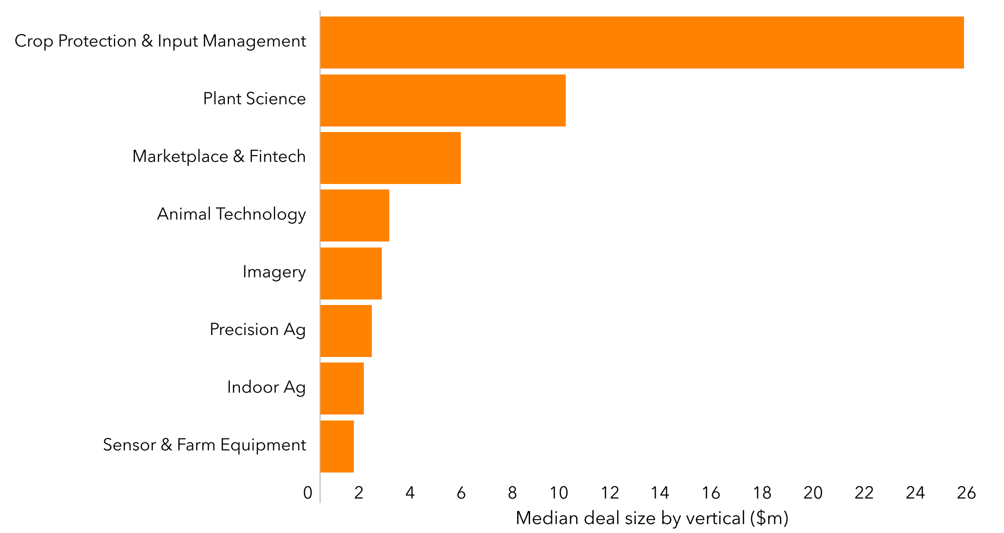
The leading role of crop protection and input management in 2018 investment totals reflects the market's gradual change from an early focus on imagery, sensors and precision ag.

Agtech VC deals ($m)



Agtech VC deals (No. of deals)





Source: Finistere Ventures / Pitchbook

Impact pressure is shaping ag markets

LP demands for climate-mitigating strategies and ESG hint at how the asset class might come into sharper focus.

By Chris Janiec

Discussions at PEI's Responsible Investor Forum – held just a week before the indictment of a TPG executive on bribery charges raised questionsover one of the highest-profile efforts within the impact-investment movement – had a somewhat tentative tone.

Executives representing leading firms' impact and ESG-focused investment vehicles and analysis units acknowledged uncertainty about the social forces that had brought them onto relatively new ground.

Panelists at the event, held in New York earlier this month, described difficulties in collecting credible data to perform due diligence; vented about imprecise rhetoric; and debated approaches to increasing diversity and shifting connections between financial return and social change. Some even mocked their own adherence to the nascent markets' rapidly-settling orthodoxies.

"..we are also concerned that the environmental and social issues associated with unsustainable soybean production could have a material impact on companies that source the commodity..."

"We do not have a dedicated impact vehicle, but we do have SDG [Sustainable Development Goals] pins," deadpanned one aspiring social entrepreneur, gesturing to their lapel.

Given agriculture's key role in many of the social, environmental and governance challenges the SDGs aim to address – and its status as the sector that attracts the most impact investors – we were disappointed (if not surprised) to hear relatively little discussion of ag at the two-day conference.

Healthcare, infrastructure and renewables were the focus for what sector-specific discussions panelists did engage in, though the exchange of 30,000-foot views at the conference did highlight important features of the fundraising environment facing those on the trail with ag-focused vehicles.

One insight relevant to managers regardless of asset class came up more than once: despite the growing chorus from both sides of the GP/LP nexus on impact investing, few institutions are prioritizing investments designed to maximize social impact. One audience member reported feedback from GPs that too few of their investors have expressed interest in dedicated impact strategies to justify building one.

"The LPs are not demanding it," the audience member quoted a manager as having told them.

If that lament – and the ambivalence of some panelists towards 'impact' – could tempt some to label these growing pressures as a passing fad, other recent developments indicate that climate concerns are certainly at the forefront for global ag investors.

In late February, the Employees' Retirement System of Rhode Island announced it had reached an agreement with Archer Daniels Midland, in which it is an investor, to take steps to prepare for a carbon-constrained future. Earlier this month, a coalition of institutions with a combined $6.3 trillion AUM that includes CalPERS, the Minnesota State Board of Investment, APG Asset Management endorsed a statement recommending companies involved in soybean production take steps to ensure their supply chains do not contribute to deforestation.

"While we recognize the important role of agriculture and soybean production to economic development and the livelihoods of farmers, we are also concerned that the environmental and social issues associated with unsustainable soybean production could have a material impact on companies that source the commodity," the group's statement read.

Organized by the non-profit Ceres, the group explicitly linked its call for an extension of an existing moratorium on deforestation in Brazil's Amazon region with the final recommendations of the Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD), an initiative mentioned frequently at the NY RIF and highlighted at June's Berlin RIF as a potential gamechanger.

"…debated approaches to increasing diversity and shifting connections between financial return and social change…"

Similar to how California's Sustainable Groundwater Management Act has provided a framework to address water challenges, the TCFD seems set to force an appreciation of the financial implications of climate risk that can only increase attention on agriculture. The most substantive discussion of ag at the New York RIF, for example, came from the manager of a strategy focused on companies standing to benefit from predictable changes in climate that are likely unavoidable.

Regardless of whether this appreciation finds its way to agricultural investors from within or outside of their fund structures, there seems little doubt the ongoing effort to respond to strengthening calls for transparency and action on climate change will impact which opportunities they can pursue. ■

PE's role in the 21st-century hemp supply chain

Private investors are well-positioned to help revive industrial hemp in the US, but they will have to navigate a hopeful market carefully.

By Chris Janiec

After building for decades, interest in industrial hemp has reached fever pitch.

A provision in the 2014 Farm Bill created an opening for university research and early-movers in select regions, but it was last year's removal of a 1937 prohibition on hemp cultivation that cleared the way for producers and investors to express widespread interest in its potential.

What they have revealed is a crop with significant promise that has inspired pockets of much-needed optimism among some US ag producers, while also highlighting the complex regulatory and cultural backdrop likely to frame both opportunities and challenges facing hemp investors.

"This hemp thing keeps coming up, over and over and over and over again," Adam Woiblet, president of Washington State-headquartered Agribusiness Trading Group, tells Agri Investor.

Because some states are friendlier to the crop than others, location has been a key factor, says Woiblet – who works as a broker largely in Washington, Oregon and Montana. While some institutional farmland investors have not ruled out planting hemp, the inevitable association with cannabis has kept most from moving forward.

In one instance, he says, an institutional investor reviewing a potential sale/leaseback on a property the owner planned to plant hemp on said they were only interested in the property if it was dedicated to row crops.

Attempting to quantify hemp's potential, Farmer Mac's Jackson Takach wrote recently that currently achievable gross profits from industrial hemp range between $170 and more than $700 per acre.

That estimate is accurate, according to Chad Rosen, founder of Carrollton, Kentucky-headquartered hemp protein and oils producer Victory Hemp Foods. Rosen tells Agri Investor that after seed, fertilizer and labor costs, US hemp farmers are left with around $300-$400 per acre post-harvest.

Rosen, who relocated from California to Kentucky in 2014 to launch Victory, says financial stress on corn, soy, dairy and tobacco farmers has added to pressure on the USDA to quickly put in place the crop insurance that is key for US farmers planting the crop.

The ethos animating many in the grass-roots hemp industry, he adds, places a strong emphasis on social justice and the crop's potential to help small family farmers.

"The challenge is going to be doing what might be right from a societal and environmental perspective, versus what industrial agriculture has reported agriculture to be like," Rosen says.

At Peoples Company's Land Expo in January, a producer who had converted a portion of his property, highlighted damage to existing farm equipment from industrial hemp's strong fibers as among important factors for producers to consider. Rosen says he has also heard about equipment challenges, suggesting that farmers move slowly and use equipment closer to the beginning of its working life than the end.

The need for specialized equipment is just one area Rosen highlights where investors have the potential to help foster the strengthening of industrial hemp's supply chain.

"It's everything from the seed to the harvest and everything in between that requires some improvement. Right now is the hard days," he says. "It's that problem/solution American ingenuity that is going to lead us to developing a great ecosystem around this plant."

Private investors have a key role to play in building that ecosystem, though finding their way to defensible positions within the market's lucrative subsectors will require braving a high degree of uncertainty in the near-term.

Try as they might, industrial hemp's advocates will never completely wall-off the crop from more fraught discussions surrounding regulation of cannabis. Given that hemp legalization has been framed by lawmakers as part of broader efforts to assist struggling rural communities, any investor pursuing hemp would be wise to also consider how to meet those aims.

Regardless, cultural shifts such as those that have cleared the way for hemp's return to US agriculture create the kind of dislocations private equity is best equipped to address. In addition to the equipment and seed genetics corners of the hemp market Rosen highlights, there will be many opportunities for investment into tailored pesticides, processing facilities and other components of a supply chain that looks set to continue developing.

PSP investments: Hawaii cropping plan reflects ag strategy's growth

Head of natural resources Marc Drouin tells Agri Investor his unit would have been unlikely to take on such a complex agricultural investment three years ago.

Although Hawaii is part of a broader US market that is among PSP Investments' target geographies for ag investment, the process that preceded its Mahi Pono joint venture with Trinitas Partners there was similar to that which comes before entering a new market, according to the head of the pension's natural resources unit.

Marc Drouin, managing director and head of the C$153.09 billion($115.5 billion; €100.1 billion) pension's natural resources team, told Agri Investor that plans for the 41,000 acre Maui property that its Pomona Farming joint venture acquired late last year include development of coffee, citrus and livestock on the property.

Local consumption dynamics in Hawaii played a part in making the deal attractive for PSP, according to Drouin, as did a suite of wetland and irrigation assets that the seller, Hawaiian real estate company Alexander & Baldwin, had maintained as part of its previous operation of a sugar business on the property.

"If we didn't have the irrigation assets and the associated water licenses, we wouldn't be able to undertake the cropping plan that we have here, it's all very integrated," said Drouin.

"Three years ago, we probably wouldn't have made this investment because of the geography, because it was not an operating asset and because we had less experience across the crops we're currently thinking of growing. Today, we just have a broader base of expertise, understanding and comfort, so we are able to take on something that is a little bit more complex."

PSP's first investment in agriculture came about five years ago, but Drouin said it had been over the past three years that his unit has focused on expanding exposure to the sector.

With 15-20 executives – some of which have responsibilities involving both timber and ag – Drouin said PSP's natural resources team begins with an analysis of long-term supply and demand fundamentals of specific agricultural commodities. Before investing in any particular region PSP also undertakes a study that includes consideration of how the area's current access to water is likely to be impacted by climate change.

PSP's agricultural strategy has focused largely on Australasia and North America, which account for about 80 percent of investment from the natural resource portfolio as it builds toward 5 percent of overall AUM over the long-term, said Drouin.

The pension also has agricultural investments in Brazil and Chile, with Peru among countries Drouin expects the firm to consider in meeting the 20 percent of its agricultural strategy currently earmarked for investments outside of North American and Australasia.

"All geographies are on a spectrum," he said. "We're looking for geographies where the rule of law prevails; where there's an abundance of opportunities to invest in the agricultural assets that we are looking for; where we can have access to a high number of potential partners who have the same investment horizon as us, but also the same investment philosophy."

Because many transactions in the ag market are below the scale threshold that PSP would generally look to achieve in its investments, Drouin said, it has looked to form long-term partnerships with like-minded operators capable of managing ESG-related risks.

"It will take us a while to help them get to a stage where we can give them more autonomy. There is a spectrum of responsibility that evolves over time. We delegate a lot of the day-to-day to our partners and if they haven't got the ability to do that, they wouldn't meet the filter to be our partners in the first place."

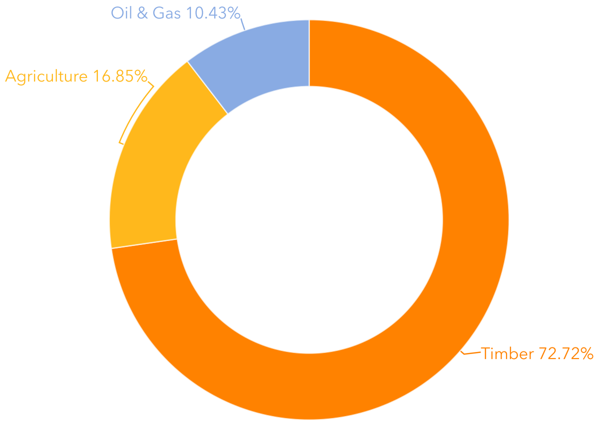
Drouin said PSP has no target number of platforms it is looking to create in agriculture, adding that it will create new partnerships where appropriate.

"We'll need more capital out there," Drouin said. "From a scalability perspective, we can't keep adding new partners at the same rate as PSP grows. We'll be looking to fine-tune the strategy and be very thoughtful about how we add new partners."

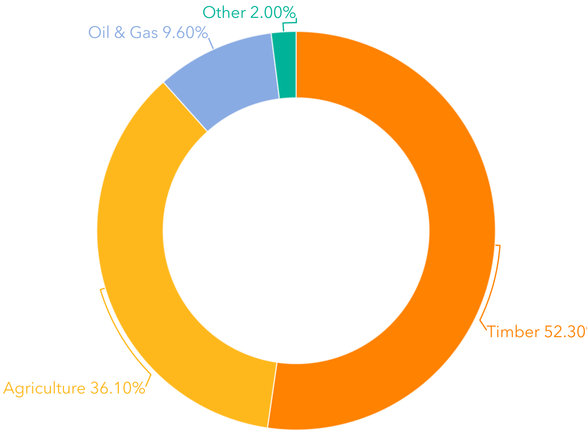
RAMPING UP

As of its latest annual report in June, PSP's natural resource portfolio had achieved a 11.2% annual return and was valued at C$4.8bn.

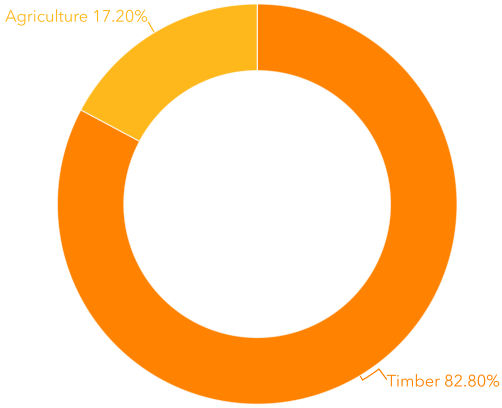
Share of natural resource portfolio: 2016



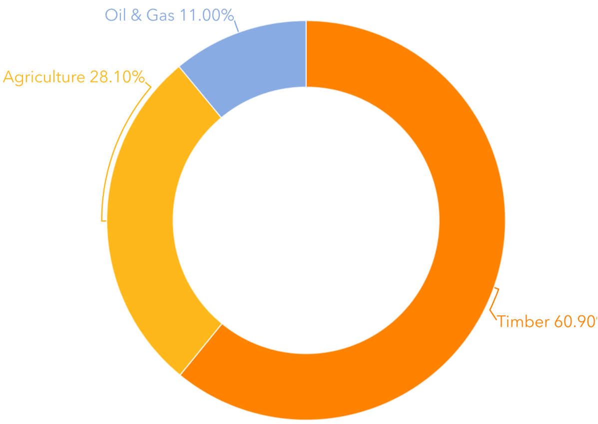
Share of natural resource portfolio: 2018



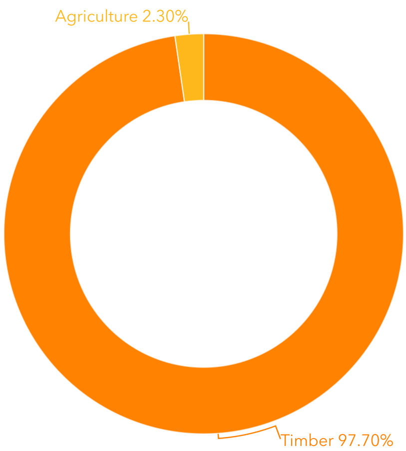
Share of natural resource portfolio: 2015



Share of natural resource portfolio: 2017



Share of natural resource portfolio: 2014



Source: PSP Investments

PE ownership can support agribusiness emissions reduction: Bain & Company

Fernando Martins, a partner at Bain & Company, says in the absence of regulation, fund managers, their investors and corporations active in agribusiness are preparing for a carbon-constrained future.

By Chris Janiec

Though large agricultural processors generally avoid making significant investment into reducing greenhouse gas emissions, there are examples where private equity ownership has made that type of investment more likely, according to a Bain & Company partner.

Speaking soon after publication of a Bain report describing how agribusinesses can curb emissions, Fernando Martins told Agri Investor it was designed to encourage companies to divert energy currently devoted to creating growth in developed countries towards efficiency and climate action to prepare them opportunities in the developing world.

"Ag processing in the mature economies is a nearly-zero-growth business, looking ahead," said Martins. "These companies are still looking to try and grow because trying to grow is human nature and economic nature. Growing in a growthless market has been taking a lot of management attention."

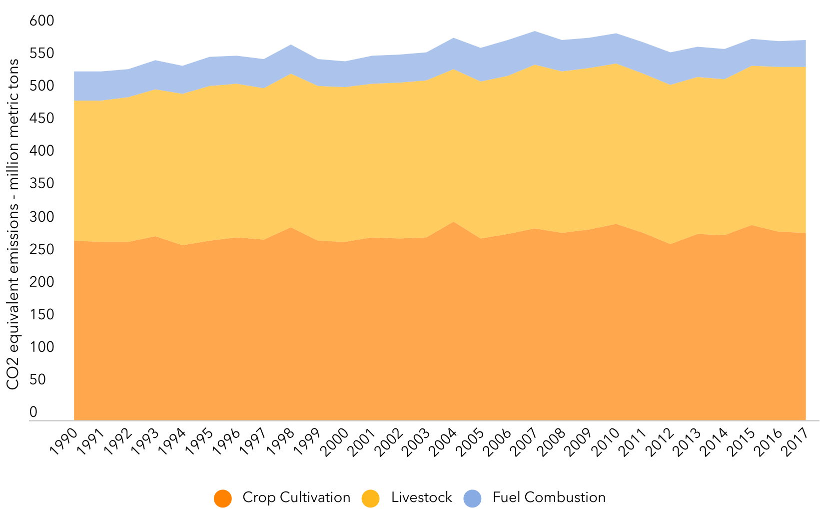
Martins – whose work as a leader in Bain's Natural Resources practice focuses on agribusiness – said whereas he spent virtually no time with existing or prospective clients on climate change as recently as five years ago, such issues currently occupy about 40 percent of his time.

However, work on behalf of agricultural operators that have hired Bain to help develop sustainability strategies has demonstrated how difficult it can be for them to prioritize climate change-focused initiatives, Martins said. Agribusinesses face pressure on a wide variety of sustainability and health issues, he explained, as investment to address emissions must overcome obstacles including internal incentive structures focused on growth rather than savings, and the fact their customers will not necessarily remunerate them for that investment.

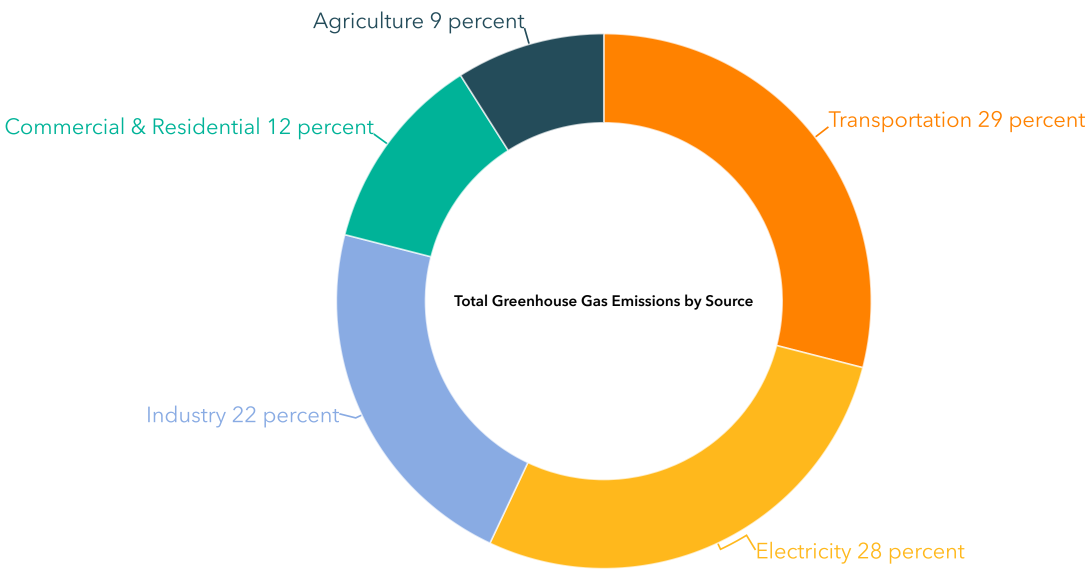
Bain also advises investment funds on how to integrate sustainability into their strategies and supply chains, according to Martins. Though there is some danger that the life-cycle of private equity can make it more difficult to overcome barriers to investment in reducing agribusiness emissions,

AG GAS

The US Environmental Protection Agency reported last month that the largest sources of agricultural greenhouse gas emissions are soil management, enteric fermentation of livestock, and manure management, among others.



Source: US Environmental Protection Agency



Source: US Environmental Protection Agency

Martins said he had seen at least one example where the transfer of ownership to a private equity fund had actually accelerated that operators' ability to implement an energy efficiency program.

"Oftentimes, the value-creation plan of a private equity owner has a lot of detailed performance improvements where they aim optimize labor, optimize inputs, optimize energy and find better feedstock," said Martins. "And, of course, then they feel good that they did it and once they do it the first time, the chances they are going to pay more attention to this the next time are higher."

There are many examples, Martins said, of private equity investments where the introduction of a sustainability strategy has been seen as a valuable part of brand-building. Over the long term,

> ***"…Agribusinesses face pressure on a wide variety of sustainability and health issues…"***

Martins said, a growing number of fund managers will likely implement systems that standardize implementation of sustainability programs within their portfolio companies.

Alongside managers' own efforts, Martins said, the sovereign wealth and pension fund LPs within their vehicles are also under increasing internal pressure from their young employees to address sustainability.

"Those people are going to retire 30 years from today, maybe 40," Martins said. "On such a long timeframe, sustainability will be related to preservation of value. I'm not going to invest in beef, because the chance there is going to a carbon tax on beef – and that people are going to eat less beef because they are realizing its bad for their heart – in a 40 year timeframe is almost a certainty."

While there is not yet a consensus among investors as to the likely future price of carbon emissions, Martins said there is a growing acceptance that some mechanism for putting a price on carbon is coming to most advanced geographies, including either federal or state regulation in the United States.

In response, he said, Bain has advised its clients to embed a "shadow" potential carbon cost into each investment decision.

"If at some point we have to scratch the word 'shadow' because it's no longer shadow, you will have known what you were getting into before you got into it," explained Martins. "It could take another ten years. We could have a sudden swing in the population and then it could happen a lot faster."