

FLOATING GREEN CAPITAL

Problem Statement: Vacant and abandoned properties have long beleaguered the industrial cities of America, particularly in the Rust Belt, resulting in blighted blocks, increased crime, and uncollected taxes. Cities such as Detroit and Cleveland have vacancy rates of over 11%, with localized rates much higher.¹ Large warehouses and factories that were once the source of thousands of living-wage jobs are now a threat to the health and welfare of the community. Concurrently, demand for local, environmentally sustainable food sources has skyrocketed. As the world population grows, food sustainability will become increasingly important. Direct-to-consumer farm sales have increased 300% in the past 15 years as consumers care more about what they eat and from where their food comes.² Recently, cities are embracing urban agriculture as a way to not only combat urban decay, but also as a strategy to make cities healthier and more environmentally sustainable.

Investment Thesis: Floating Green Capital (FGC) will establish a vertically-integrated fund that will acquire urban industrial real estate and leverage that capital to obtain debt/equity stakes in controlled environment agriculture (CEA) operations. This will primarily be done through acquisition of abandoned industrial property that will be converted into hydroponic farming facilities. The facilities will be “leased” to partner entities with proven CEA experience in exchange for equity. These facilities will provide a source of local, “organically grown” produce in U.S. urban centers and spur economic redevelopment in struggling industrial communities.

Overview of Investment Opportunity

Asset Class and Capital Structure: Open-Ended Corporate Fund (“Evergreen Fund”) with renewable commitment at year 7 and every 2 years thereafter.

Fees and Incentives: 1% management fee; 20% performance fee over 8% preferred return

Target Investor Pool(s): Family Offices, Foundations

Fund Size: Initial fund of ~ \$30 million, which will provide financing for an initial asset portfolio of 3-5 hydroponic facilities and businesses.

Returns and Cash Flows: FGC will receive 15% preferred dividend paid through to FGC investors when cash flows permit. In Y7, FGC will retain a put option to sell its equity to the operator at a value that ensures a cumulative IRR of 15%. Upon investor exit from FGC fund, investor will be paid the fair market value of its proportional equity stake in FGC fund.

Time Horizon: Exit will vary with investments. Preferred returns of 15% annually with put option in Y7 to sell the equity to the operator.

Environmental and Social Impact:

90% less water – Hydroponic crops use 90% less water than the same crops in traditional soil farming, increasing water sustainability.

1/4 of the space – Farmers can plant 4 times the amount of crops in the same space as traditional soil farming, significantly increasing volume of crops produced.

1/2 growth time – Lettuce matures in less than 4 weeks. Given the ability for hydroponic crops to have a year-round growing season, this greatly increases the yield of local crops sold in the community.

0.0 chemicals – Hydroponic produce is extremely healthy, as hydroponically grown crops use no herbicide or pesticide chemicals. This prevents harmful effects to the environment and the human body found in other types of farming.

↓ emissions – Locating these facilities close to urban centers drastically reduces emissions related to food transportation.

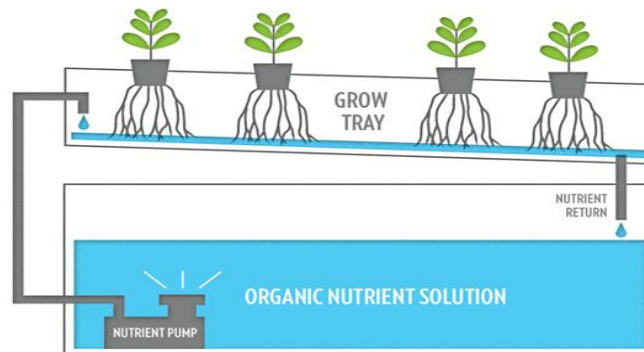
Ancillary Benefits:

- Revitalization of neighborhoods suffering from the loss of industry and creation of jobs.
- Locating the facilities in struggling neighborhoods can provide an affordable, local food source to urban food deserts.

Controlled Environment Agriculture (CEA)

What is CEA? What is hydroponics?

CEA is any agricultural technology that allows the grower to control the environment in which the crop grows. This is generally done by creating indoor agricultural systems. Hydroponics is one form of CEA in which produce is grown in a nutrient rich soil alternative that is placed on floating beds on top of a water reservoir.



Source: Woodbridge Farm <http://twoguysfromwoodbridge.com/>

What are the benefits of CEA?

There are both economic and societal benefits inherent in the hydroponics model. With the world population reaching 7 billion, food security will become increasingly important. CEA has been a successful strategy for improving food access to food insecure areas. CEA offers a way to produce a large amount of year-round produce in a relatively small amount of space and in an environmentally friendly manner.

Is this technology proven?

Yes. CEA is a prominent source of produce in countries like Canada, Japan, and the Netherlands. It is a \$17 billion market worldwide and projected to grow rapidly. In China, 25% of produce is grown via CEA. However, in the U.S., CEA is comprised mostly of hobbyists, non-profits, and a growing number of boutique commercial operations. CEA is nevertheless growing rapidly in the U.S. due to demand.

Why isn't CEA prevalent yet in the U.S.?

Growers agree that large upfront investments is the biggest hurdle. On top of this, the U.S. produce market is structured such that 1-2 hub states produce a vast majority of the food that is distributed nationwide. Locally grown produce is inherently more likely to be from smaller operations that cannot compete nationally on price in major grocery chains. By tying locally scaled operations into a national network, however, we can facilitate this process by providing local growers with access to national food buyers.

¹ United States Census Bureau. 2012. American Community Survey 1-Year Estimates.

² <http://www.ams.usda.gov/AMSv1.0/getfile?dDocName=STELPRDC5105706>

Investment Details

Target Geography: The initial fund will focus on large urban centers within the United States. The fund will favor areas that have large inventories of unused industrial space and/or are in drought prone areas. These geographic specifications maximize social impact and increase the likelihood of government incentives.

Size of Addressable Market: The market for hydroponics is not fully developed within the United States; however, the total U.S. agricultural market exceeded \$775 billion. Hydroponics represents a growing portion of the overall agricultural market. In 2012, the hydroponics market was \$543 million and growing at a rate of 7.7% annually. Our initial investments will likely focus on operators that grow lettuce and other “leafy greens.” In 2010, the U.S. demand for lettuce exceeded \$90 billion.

Source(s): <http://www.ers.usda.gov/data-products/ag-and-food-statistics-charting-the-essentials.aspx>;
<http://www.marketwatch.com/story/growlifes-phot-move-to-corner-the-hydroponics-market-2013-08-05>

Estimates of Scalability: Our model proposes to create a national network of locally scaled operations. Previously, hydroponics has not obtained national scale, because there is a limited number of geographically immobile master growers. Our investment model will capitalize on these grower’s ability to scale locally by tying their operations into a larger network of growers that can more easily contract with national grocery chains and other large scale food buyers who desire locally grown produce, e.g. Whole Foods, Chipotle, etc. We will also look for growers with a focus on human capital development needed to expand operations.

Assumptions: FGC base model is a lettuce-only facility located in a low-income area of a large Midwestern city. Build-out would cost ~\$50 per square foot, which is above estimates we were given. Lettuce would market for \$1.50 and would be sold to chain grocers that have contracted to buy 100% of the produce that is grown. To maximize social impact and facilitate human capital growth for scaling, FGC has opted for a labor intensive operation which requires about 13 people per acre. Operators will be salaried to manage the facility and will not share in equity unless preferred return is met. Model does not include government incentives; however, FGC believe incentives are probable depending on geographic location.

Investment Size and Investment Criteria: For land acquisitions, any structure must have at least 90,000 square feet of space available for hydroponic equipment. The building must be structurally sound and require minimal insulation work. Vacant lots must have at least two acres on which a greenhouse can be built. Partner organizations must be able to operate at scale within its region. Plus factors will include grower’s ability to operate multiple facilities nationwide and commitment towards developing human capital. In exchange for operator’s use of the space, FGC will require a preferred annual return and an equity position in the business (50%) with a put option and will retain ownership of all real assets.

Metrics for Social Impact	
Environmental	Socioeconomic
Gallons of Water Saved	Number of Jobs Created
Carbon Savings (lbs).	Increase in Tax Revenue
Reduction in Miles Food Travels	Food Sold in Food Deserts (lbs)
Waste Reduction (lbs. of food diverted from landfill)	Increase in local consumption of produce
The Localization Ratio (% of consumption produced locally)	

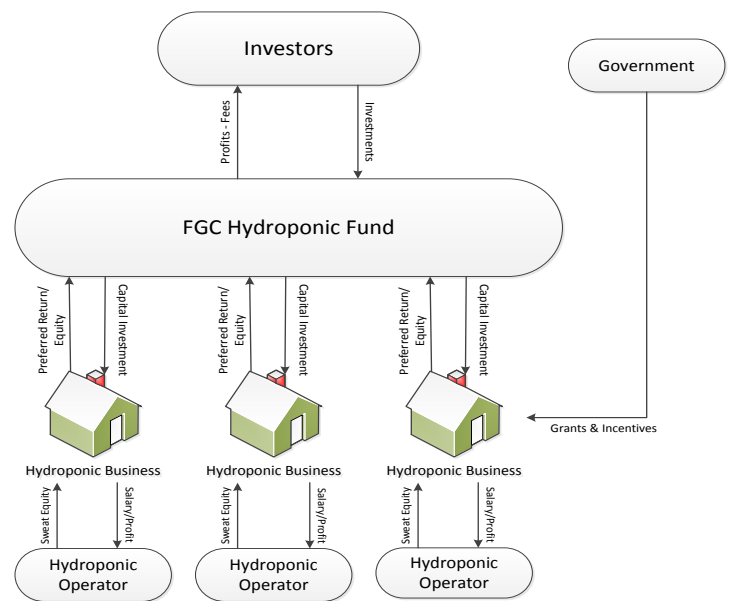
THANK YOU FOR THE ASSISTANCE!

David Chen (Equilibrium Capital); Viki Radden (5 Stone Green Capital); Mike Walker (AgVets); Jon Parr (Fishnet Aquaponics); Troy Curtis (Nelson & Pade Aquaponic Engineers); Mark Newberg (5 Stone Green Capital); Doug Lawrence (5 Stone Green Capital); Drew Hopkins (Viridis); John Edell (The Plant NFP)

Sample Investment

FCG will provide the funding for a CEA grower to develop a hydroponic facility in a large Midwestern city in exchange for a convertible equity stake in the company and a preferred annual return. A proposed partner is AgVets, which has a qualified network of master growers and a commitment to developing the human capital needed to scale nationally. Land will cost approximately \$2 million and build-out will be approximately \$50/sq. ft. for a total investment of \$6.5 million. FCG will assist in obtaining food purchasing contracts with local grocery or food chains. With a labor intensive approach employing 26 staff (13/acre) selling only lettuce, the operation has a pre-distribution profit of approximately \$3 million annually. ROI for the entire business ranges between 20-30% depending on the growers’ operations preferences. This will either be distributed to investors at preferred rate or kept as retained earnings and used for growth. FCG will exit in Year 7 by exercising the put option or will retain its equity in the business and real assets.

Diagram of Fund or Instrument



Risk Factors & Due Diligence

Risk Factors: The primary risk factor for investors is the ability and reliability of partner growers in growing the produce. Most commercial CEA growers are located outside of the United States. There are a limited number of skilled U.S. growers. As such, initial investments will need to focus on human capital development needed to scale. Lastly, real estate prices may vary depending on availability of abandoned industrial space within a given geographic region. Additional risks are standard industry risk such as the rise of new competition or change in demand for locally grown produce.

Due Diligence Process: FGC has conducted extensive research through outreach to existing industry stakeholders and prospective partners. Industry specific research has included (1) site tour of urban factory converted to non-profit hydroponics incubator space, (2) meeting with investors with hydroponic experience; (3) meeting with suppliers and engineers of commercial hydroponics systems; and, (4) outreach to hydroponics growers with whom we could partner. To gauge investor interest, FGC also spoke with various individuals with broader VC and impact investing experience. As the fund proceeds, FGC will closely assess the financials of operators seeking funding and their ability to grow the produce.