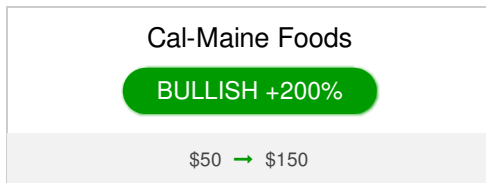




Animal Rights And The Egg Industry



Cal-Maine Foods has been using the United States Humane Society's PR to its own advantage for years, to sell overpriced, feel-good specialty eggs. They reached a PR breakthrough in 2015, and Cal-Maine Foods' margins are about to explode.

April 13, 2016

Executive Summary

The US market for eggs is very inelastic, as demonstrated by the price spike in 2015, which led to only marginal decline in consumption.

Egg products in general are benefiting from long-term shifts in consumer preferences, away from meat and into healthier, low-cholesterol, and high-protein diets.

Growing consumer awareness for healthy and morally rewarding food has created a market for specialty eggs, that come from hens living in better environments than traditional, battery hens. Cal-Maine Foods, the major US egg producer, is benefiting from this shift of consumer preferences. Specialty eggs command price premiums of around \$1.5 per dozen, while only costing around \$0.15 more per dozen to produce. An investment in "cage free" - level production facilities pays for itself in less than two years.

The Humane Society of the United States, an animal rights defense group, is instrumental in promoting specialty eggs. The HSUS has been extremely vocal in criticizing the egg industry, fighting for better treatment of hens and chicken. Consumers are receptive to HSUS' message, and are willing to pay a premium for eggs that come from "cage free" hens, because the product that makes them feel better. As a result, the share of specialty eggs in Cal-Maine Foods' product mix has been growing in line with rising media coverage of HSUS' fight for better chicken treatment.

The Humane Society scored a major PR victory in 2015, as major retail chains (McDonalds, Walmart, Subway, etc) decided to switch to cage-free eggs entirely over the next few years. The blowout in media coverage of cage free eggs in 2015 will provide the catalyst for the ultimate shift towards specialty eggs, a monster expansion of Cal-Maine Foods' margins, and a 200% run in its share price. This is not priced into the stock price at all.

Analysis

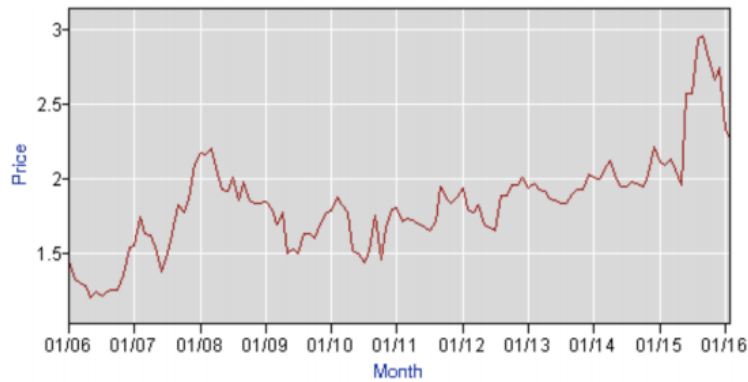
1. The market for eggs is very inelastic

Americans consumed 263 eggs per capita in 2014 (source: American Egg Board). Eggs are an inexpensive source of protein, much cheaper than meat.

The egg price spike in 2015 due to avian influenza (**Chart 1**) has shown that egg demand is very inelastic.

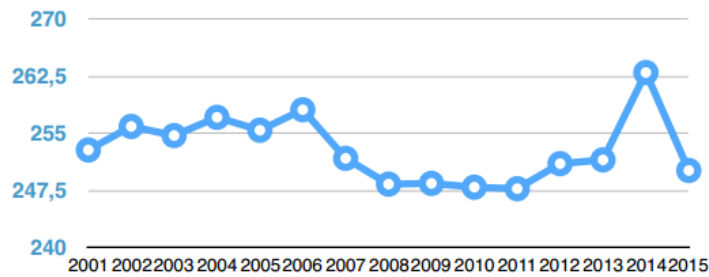


Chart 1: Average retail price of a dozen of shell eggs in the US, source: BLS



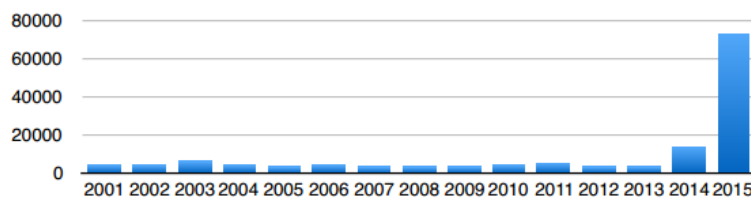
Indeed, the price spike didn't materially affect overall egg consumption, which remained in line with the average since 2001 (**Chart 2**).

Chart 2: Egg consumption per capita in the US, source: American Egg Board



The decline from 2014 could easily be explained by shortages due to the influenza outbreak, which forced the US to import large quantities of shell eggs for the first time in the 21st century (**Chart 3**).

Chart 3: Shell egg imports, thousands of dozens, source: USDA

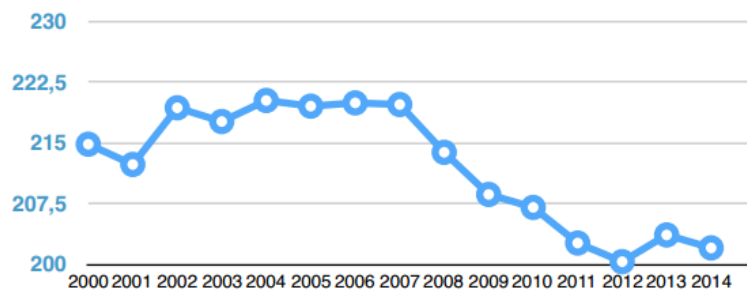


2. Eggs are benefiting from long-term shifts in consumer preferences

The stable egg consumption trend is in a dire contrast with US meat consumption, which has been declining for years, down 10% per capita since 2005 (**Chart 4**).



Chart 4: Meat consumption in the US, pounds per capita, source: USDA

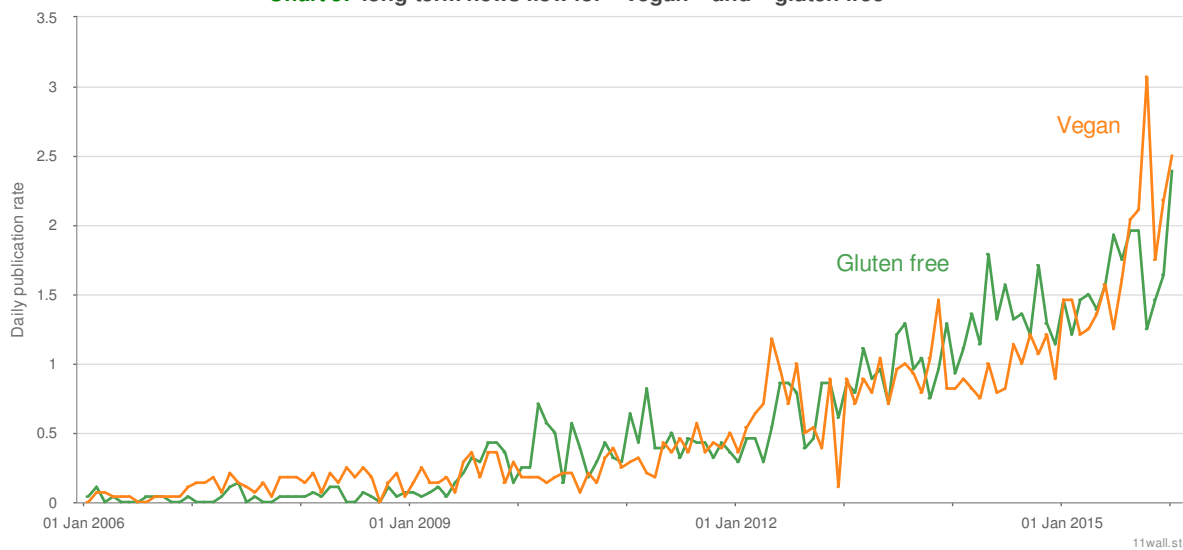


The decline in meat consumption a global phenomenon, and not the result of a growing percentage of people who stop eating meat altogether. People who identify themselves as vegetarians or vegans accounted for less than 5% of the population in 2015. Studies find that « hardcore vegetarians » are an even slimmer minority, as most people who claim at one point to be vegetarians, go back to eating meat after a couple of years.

One factor accounting for this trend is food price inflation, with wholesale beef and chicken prices up over 50% since 2005 (source: USDA), while overall CPI is up 21% (source: BLS). Consumers are naturally switching to cheaper sources of protein.

Another factor is growing consumer awareness for health and environmental issues, symbolized by the vegan and « gluten-free » movements (**Chart 5**). Coverage of both issues has been growing by over 55% per year since 2009, versus an overall media volume growth of 33% per year. Egg products are the go-to compromise in these dietary trends.

Chart 5: long-term news flow for « vegan » and « gluten free »



3. Shifting consumer preferences have create a juicy market for specialty eggs

Rising awareness for food quality as a whole is very beneficial to food manufacturers. Consumers are naturally willing to pay higher prices for a product that they consider to be important to them. The industry has certainly encouraged the phenomenon, which has helped them consistently hike their margins, as shown by soaring stock prices since 2005.

Cal-Maine Foods hits the nail on its head in its 2015 10-K filing, stating that « [...] high protein diet trends, reduced egg cholesterol levels, and industry advertising campaigns may result in the sustainability of



current per capita egg consumption levels ». Long-term consumer behavioral trends are at the heart of their business: sell as many eggs, as expensive as possible.

In particular, Cal-Maine is « one of the largest producers and marketers of value-added specialty shell eggs in the U.S. Specialty shell eggs include nutritionally enhanced, cage free, organic and brown eggs. They have been a significant segment of the market in recent years » (10-K filing again).

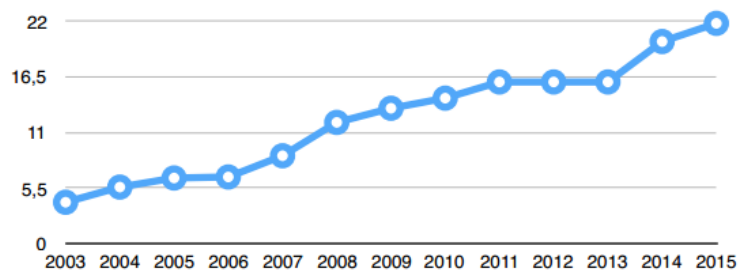
Specialty eggs command much higher premiums, for only marginally higher production costs. A dozen of « cage-free » brown eggs sell for \$4.15, versus \$2.50 for standard brown eggs (source: April 1st, 2016 USDA National Retail Report).

Chad Gregory, president of the United Egg Producers industry group, estimates that becoming cage-free costs around \$40 per bird. Hens lay around 20 dozens of eggs per year, so the additional investment pays for itself in under 2 years, even if the increased supply of cage-free eggs were to pressure prices down a little bit.

4. The Humane Society is instrumental in promoting specialty eggs

Cal-Maine Foods' share of specialty eggs in their product mix has been rising for years (**Chart 6**).

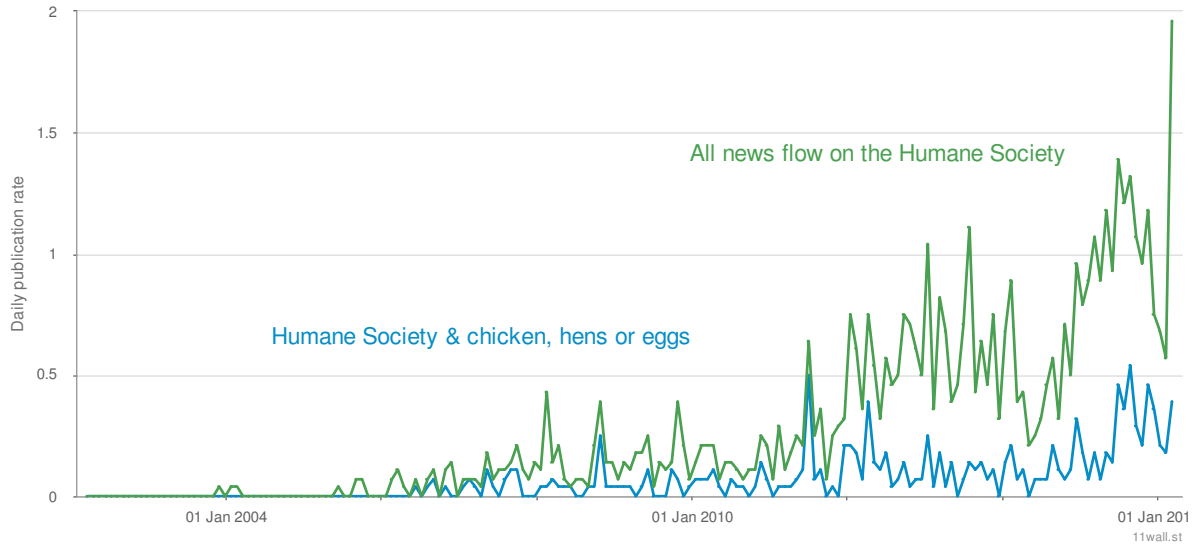
Chart 6: Share of specialty eggs in Cal-Maine Foods' total egg production, percent (source: 10-K filings 2005 through 2015)



This rise in specialty egg production has happened as the Humane Society of the United States, an activist animal rights protection group, has been fighting the egg industry for better treatment of laying hens. HSUS's chicken campaign started around 2006, and is a major cause for the group, as chicken are mentioned in 27% of articles dealing with HSUS (**Chart 7**).



Chart 7: Long-term news flow trends for the Humane Society, versus HSUS plus chicken/hens/eggs



By apparently fighting the egg industry on the PR front, HSUS has in fact a very profitable impact on the industry. It raises consumer awareness, and creates a market for « cage-free » eggs. Consumers are willing to pay a huge premium for virtually the same product, because it makes them feel better.

Cal-Maine Foods states in its 10-K filing that « Pressure from animal rights groups regarding the treatment of animals may subject us to additional costs to conform our practices to comply with developing standards ».

They go on by saying, « We and many of our customers are facing pressure from animal rights groups, such as People for the Ethical Treatment of Animals, or PETA, and the Humane Society of the United States, or HSUS, to require that all companies that supply food products operate their business in a manner that treats animals in conformity with certain standards developed or approved by these animal rights groups. »

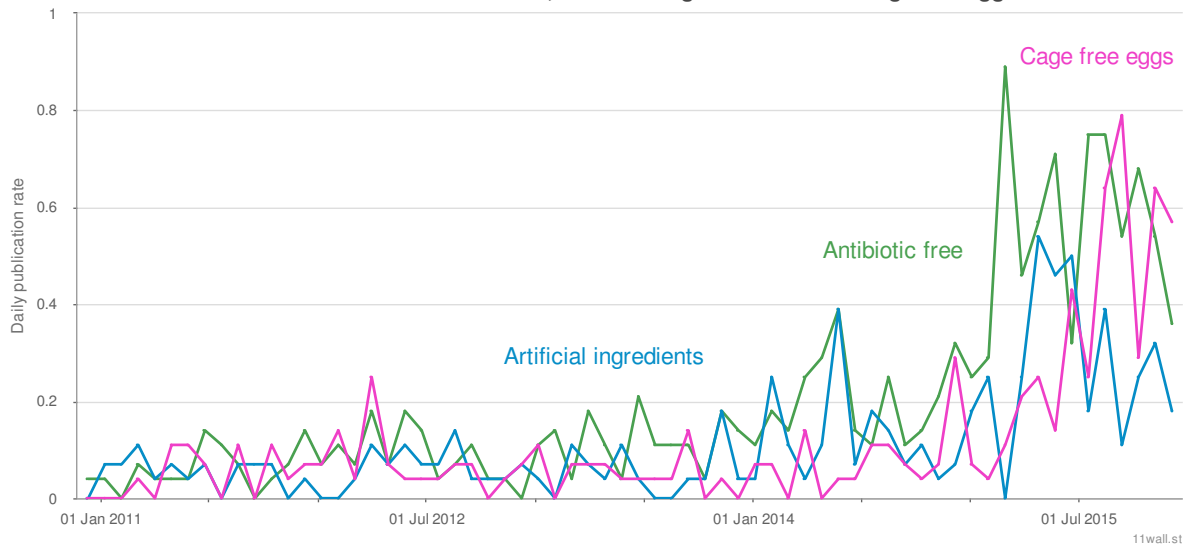
It appears that instead of being an adversary, the HSUS has been an amazing ally in hiking the egg industry's margins.

5. The Humane Society scored a PR victory in 2015 in favor of cage-free eggs, which is also a huge victory for Cal-Maine Foods

In mid-2015, Nestle, Subway, General Mills, Papa John's, McDonald's and even Walmart and Kraft, announced a series of measures to improve food quality. First, they committed to reducing the use of artificial ingredients in their food, and to switch to antibiotic-free meat. Then, they committed to use only « cage-free » eggs by 2022-2025. This decision was widely echoed in the media (Chart 8), and will have major impacts on consumer awareness.



Chart 8: News flow for « antibiotic free », « artificial ingredients » and « cage-free eggs »



This is how the HSUS is celebrating this « victory » on its home page ([http:// humanesociety.org](http://humanesociety.org)):



A major consequence of this PR effort, will be that consumers will feel good when buying a dozen of overpriced "cage free" eggs.

Currently, the standard is to stack the birds in extremely confined enclosures, allowing only around 70 square inches of space per hen (that's less than a standard sheet of paper). The USDA issued a rule that products could be labeled « cage-free » if every bird has at least 116 square inches of space, without specifying the enclosure size.

That's still incredibly small when you think about it. The birds will probably still be locked down in cages. Certainly not what the « cage-free » label suggests in the mind of a consumer, nor the PR campaign the HSUS is running. But it doesn't matter; the point is, consumers will be paying much more for virtually the same product, and will be happy about it. They trust HSUS to be the good guy.

We don't know if the egg industry is in control of HSUS' efforts (HSUS doesn't disclose its donors), but they're certainly benefiting from it.

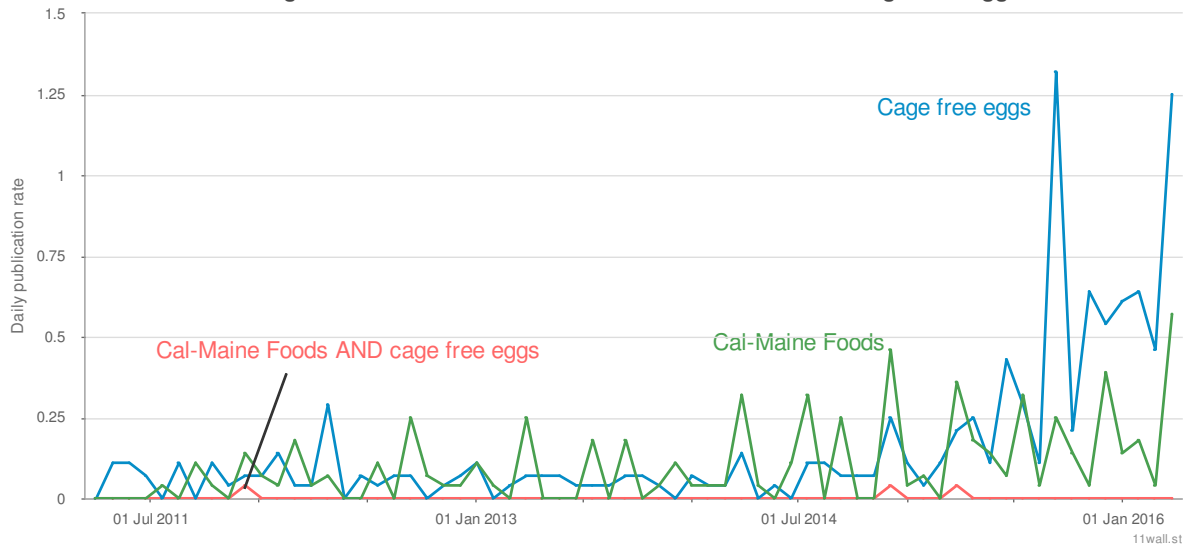
The « cage-free » movement is a huge victory for Cal-Maine Foods. Growing consumer awareness, and the perception of a higher quality product, will enable them to sell much more of expensive specialty eggs, while keeping the cost basis relatively stable.

The link between the "cage fee" movement and Cal-Maine foods hasn't been established in the media, as is



visible in **Chart 9**. We have picked up only three articles in our database talking about Cal-Maine Foods and cage free eggs, at the same time. This makes us confident that the trend is not priced into Cal-Maine's stock price at all, and the market will continue to be surprised by the company's earnings, quarter after quarter.

Chart 9: Long-term news flow for Cal-Maine Foods in the context of "cage free" eggs



Roadmap & Playbook

Cal-Maine Foods is betting big on specialty eggs. They mention « cage-free » 12 times in their 2015 10-K filing. They have very little debt, and financing the transition will be easy. Egg demand is very inelastic, as the 2015 price spike has shown. Eggs are difficult to import, as their price-to-weight ratio is relatively low, they are fragile and otherwise quickly perishable.

Cal-Maine Foods' revenue was \$1.56 per dozen eggs in FY2015, with operating margins of 23.5 cents per dozen. Specialty eggs (free-range, organic, etc.) accounted for 21.8% of shell egg volume. A switch to a 80% specialty - 20% standard product mix, helped by HSUS' PR, would easily triple Cal-Maine Foods' profits, with wider margins and less exposure to commodity price fluctuations, as a much bigger portion of their product's price tag would come from brand recognition.

Currently, Cal-Maine Foods trades at \$52, a 2% dividend yield and a 15.6 P/E multiple, with no debt. We believe the stock is worth much more given the scenario outlined above, and should trade between \$100 and \$150 in the next two to three years.

Probability	Event	Early signs
60%	The transition to cage-free eggs follows its course over the next three years, and margins on cage-free eggs remain high.	<ul style="list-style-type: none"> • Media coverage continues beyond the hype generated by Big Food commitments. • Awareness for animal welfare grows.
20%	Transition to cage-free eggs stalls, as supply chain issues forces Big Food to reconsider their commitments.	<ul style="list-style-type: none"> • Sustained shortages of specialty eggs. • External factors tarnish the image of specialty eggs (influenza, adverse animal rights groups PR). • Media coverage dies out.
10%	Transition to cage-free eggs follows its course, but increased production puts downward pressure on margins.	<ul style="list-style-type: none"> • Media coverage dies out. • Food price inflation concerns surface.
10%	The transition fails before it has even started, no benefit from the PR campaign.	<ul style="list-style-type: none"> • Media coverage dies out. • Food price inflation concerns surface.

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