# The 'Egg Crisis' – Another Pseudo-Inflation Phenomenon



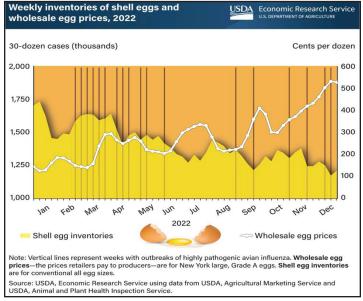
PORTLAND, ME - JUNE 9: Becky's Diner line cook Mike Sajecki cracks an egg onto the flat top, June 9, 2015. As the nation faces an egg shortage due to widespread avian flu, egg prices are expected to rise. Becky's, for one, says it doesn't plan on raising its menu prices. (Photo by Gabe Souza/Portland Portland Press Herald via Getty Images) PORTLAND PRESS HERALD VIA GETTY IMAGES

By Dr. George Calhoun
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 "Eggs are eggs. People want eggs." New York Times (Feb 3, 2023)

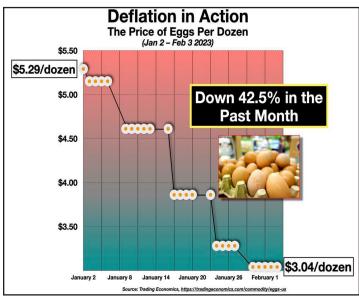
First of all – Is there really an "egg crisis"?

The press says so. The US Dept of Agriculture says so. As of the year-end, it certainly seemed so. Inventories were depleted and prices had tripled.



USDA Chart of Egg Prices and Inventories CHART BY US DEPT OF AGRICULTURE

But the most recent data looks very different. Egg prices have dropped over 40% in just 30 days.



Eggs - Deflation In Action CHART BY AUTHOR

This is **deflation** in action. This is what "transitory" looks like.

True, eggs are still more expensive than they were pre-pandemic. The run-up was caused by an avian flu epidemic which broke out in January 2022, with the loss of tens of millions of egg-laying chickens (as described in previous columns, linked at the end of this article). As stricken or compromised egg-layers were removed, and their replacements took time to come on line, the production of eggs dropped and the price rose – just as it did in the previous avian flu outbreak in 2015. The correlation between flock size and egg prices during 2022 was **negative 60%** – that is, as the size of the producing flock went down, the price of the product went up. In this case correlation is causality. Egg-flation is a straightforward case of prices driven up by a supply constraint, caused by an external shock. It is therefore **transitory**, as the rapid decline in the last 30 days already shows.

What is extraordinary about this story is the way it has captured the attention of the public, pressure groups, inflationistas in general, and even some government officials. An activist group has called on the Federal Trade Commission to investigate alleged collusion by the major egg producers. Senator Cortez Masto of Nevada sent a letter to both the FTC and the Department of Agriculture, charging the industry with price gouging. (The case for antitrust violations is very weak, as described in the previous column – "Is Inflation Caused by Corporate Greed".) The mainstream press is all over the story (although they seem to be stuck on last month's price

rise and haven't caught up with the recent deflationary reversal shown above). Much like the mechanically obsessive (and largely pointless) coverage of gasoline prices, the egg crisis is seen as a way to bring the inflation story home to the masses.

[More sober reviewers recognize that at worst this egg spike is an anomaly, an outlier, and a temporary one. The CPI as a whole was **down** in December (vs November).]

This narrative is not entirely harmless, however. Public psychology vis a vis inflation is widely seen as a critical factor, even a causal factor, in the development and persistence of inflation in the economy. The Federal Reserve is hyper-attentive to the possible "de-anchoring" of the public's inflation expectations. Should people begin to see inflation as a fixed trend, it could become a dangerous accelerant. Exaggerated press coverage plays an obvious role in conditioning these expectations, and it seems that the egg crisis carries special weight in this regard.

Why, then, has this egg story, which looks like it ought to be a very minor sideshow, risen to such a pitch in the overall debate on inflation?

#### The Concreteness Bias

Behavioral Finance is a branch of finance theory that focuses on the ways in which various "cognitive biases" – systematic "deviations from rationality" that human beings are prone to – lead to outcomes that violate the efficient market hypothesis (and thereby offend some academics, while making money for some investors). Many of the classical financial market anomalies, or "factors" – such as value, growth and momentum – are explained by behavioralists as the natural result of biases that skew investors' decisions away from the norms of mathematical or statistical logic. The number of these biases has grown over the past several decades, as experimenters have uncovered and quantified these deviations. The list now includes such examples as the Anchoring Bias, the Confirmation Bias, the Framing Bias... and many others.

To these I will add a possibly new type: the **Concreteness Bias**. I will define this as the human tendency, when confronted with a challenging intellectual problem, to base one's understanding of the matter on a concrete, tangible instance with which one has direct personal experience — which is then taken to symbolize/explain the larger and more complex phenomenon of which it is assumed to stand as a simple and discrete example. [There is a recognized bias called the Salience Bias, which is similar. "The salience bias describes our tendency to focus on items or information that are more noteworthy while ignoring those that do not grab our attention."]

The price-of-eggs narrative is a concrete case of the Concreteness Bias. As noted, it has become a recent media obsession. Egg prices are taken to epitomize the bigger picture, offering clear proof (as they see it) that *inflation is real*, and is still wreaking havoc.

Inflation-in-general *is* a confusing and controversial topic. For most of the public, monetary theory is abstract and incoher-

ent. Fed policy is rank alchemy, mysterious, dubious and dangerous. The press is full of expert pronouncements urging the Fed to go right, or go left, or stand still. 25 basis points, or 50? There is no consensus. Who can follow all this?

On the other hand, the egg price story is simple, clear and relatable. We may not know what a basis point is, but we all know what eggs are. We have direct, frequent personal experience with the egg market. Egg prices are unambiguous. There are no two opinions about the meaning of "\$4.00 a dozen."

So when egg prices soared last year, peaking in December, it frightened and fascinated the public and the mainstream media. For the ordinary consumer, the debate over a 25 basis point increase in the Fed Funds rate could never match the "box office draw" of the cost of breakfast. Despite the objectively minor contribution of eggs to the consumer's overall market basket, people are apparently highly alert to, and upset by, the price *increase of about 10 cents per egg* over the past year.

The exaggerated attention focused on eggs exemplifies the Concreteness Bias. The U.S. consumption rate is 288 eggs/year/person. For the average family comprising 3.1 persons, that works out to about \$90 impact on the typical yearly household budget. OK, that's more than *de minimis*. But why should an extra 10 cents per egg outweigh in public perception and media attention the approximately \$4500 annual rise in the mortgage-driven median home payments? Aside from the disproportion, egg consumption can be modulated without much sacrifice if the price is too high this week. Two-egg omelets can take the place of three-egg omelets for a while.

Mortgage payments are of course obligatory. And "shelter inflation" metrics are very complicated. Home ownership costs (which are directly affected by interest mortgage rates) come in various forms. Mortgages may be fixed or adjustable, and the rate varies with the term. Moreover, a house provides a "service" (shelter) but is also an investment, so monthly payments must be separated into a "capitalization" component and a "use" component. The major inflation indices like the Consumer Price Index (CPI) and the Personal Consumption Expenditure Index (PCE) tackle this by calculating "owner equivalent rent" – which is a problematic number (worthy of a separate column). Finally, any price rise is at least partly offset by the (expected) increase in resale value.

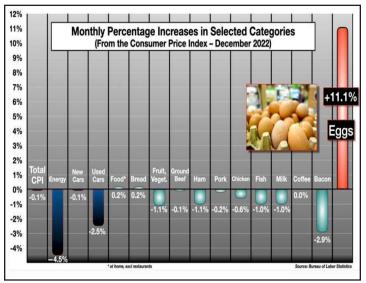
Eggs have no resale value. They are not an investable asset-class. They are simple, perishable consumables. They come in several sizes, it is true, and with various labels ("free range", "organic", "pasture-raised"). But as *The New York Times* has informed us, "eggs are eggs." Tangible, material, digestible. Concrete.

To summarize: the Concreteness Bias describes the tendency of people to fixate more easily on the immediate and the concrete than on the general and the abstract. Jumbo eggs are easier to understand than Fannie-Mae-backed jumbo mortgages.

## **Concreteness and the Media**

I have written many general columns on inflation in the ab-

stract, its causes, the methods of measurement, the policy options, the relationship to interest rate moves, to quantitative easing and tightening, and so on. Recently, in a departure from these generalities, I wrote what I thought would be a sort of fun, throw-away column on the 11% month-overmonth rise in the price of eggs in December, by far the largest gainer of all 200+ items that compose the Consumer Price Index.



Egg Prices, December's Month Over Month Increase CHART BY AUTHOR

I assumed the audience would recognize this as an anomaly. A more or less meaningless curiosity.

I was wrong. My "egg columns" have drawn almost 10 times more readers than most of my more general pieces on inflation. In parallel, I have been astonished at how much press attention the egg crisis is getting lately. (I wonder if their readership proportions are similar to mine. Their egg stories are full of outlandish anecdotes, and are much more interesting than the accounts of the ruminations of the Federal Reserve.) For example, *The New York Times* chronicled the desperate efforts of some consumers to solve the egg problem by... raising their own chickens.

 "People are snapping up chickens that are 'heavy layers' in response to egg inflation...as families try to hedge their bets against skyrocketing prices and constrained egg availability...Meghan Howard, who runs sales and marketing for Meyer Hatchery in northeast Ohio said 'It's those egg prices. People are really concerned about food security."

Food security? A 10 cents-an-egg price bump generates concern about food security?

Apparently so, for some. Hatcheries are swamped with demand for premium hens.

 "As there are more and more shortages, it's driving more people to want to raise their own food," Ms. Stevenson [Director of Marketing at a large lowa hatchery] observed on a January afternoon, as 242 callers to the hatchery sat on hold, presumably waiting to stock up on their own chicks and chick-adjacent accessories."

Google is said to be swamped with searches for "raising chickens." TikTok videos showing how to raise chickens at home have had *millions* of views.

The follow-up piece in the Times reported on a new dimension of the border crisis:

"From California to Texas, border agents are increasingly seizing a surprising type of contraband from Mexico: eggs. U.S. Customs and Border Protection agents had more than 2,000 encounters with people trying to bring eggs into the United States from Mexico between Nov. 1 and Jan. 17." – New York Times (Jan 25, 2023)

These are fun stories, very tweet-able I would assume. But the volume and intensity of the coverage of this fleeting blip in the big picture doesn't make sense – unless you invoke the Concreteness Bias.

# The Fallacy of Concreteness-Based Reasoning

Like the other biases identified by the behavioralists, the Concreteness Bias derives from a flaw in human reasoning – at least it is a flaw by comparison with formal statistical principles. It is the idea that a vivid, familiar Detail encapsulates the truth of the more remote and abstract Whole of which it is a small part.

It seems to be a universal and permanent aspect of the way we think. In the Middle Ages, philosophers mulled over the microcosm-macrocosm analogy, which was similar in spirit:

"A historical view which posited a structural similarity between the human being (the microcosm i.e., the small order or the small universe) and the cosmos as a whole (the macrocosm i.e., the great order or the great universe). Truths about the nature of the cosmos as a whole may be inferred from truths about human nature, and vice versa." – Wikipedia

In modern times, this idea has been recast in mathematical terms. *Fractals* are imaginary structures, where "each part has the same statistical character as the whole." If the economy really were fractal, then we could deduce the nature of inflation-in-general from the egg price phenomenon.

But statistical science recognizes that the fractal idea is a chimera. The problem of ensuring that a *sample* actually represents the entire *population* is a central difficulty. Biased samples are the bane of epidemiology, including the epidemiology of economic phenomena. The smaller the sample, the less likely it is that the leap of faith from small truths to large ones can be justified. "Concreteness" – the fixation on a supposedly Telling Detail –is inherently idiosyncratic and specific. It generates a bias that skews our judgment about the big picture.

In this case, the "Vivid Detail" is the surging price of eggs, and the "Whole" is Inflation-in-general. The Concreteness Bias

leads to the (false) conclusion that somehow this particular price anomaly in this particular commodity product contains the gist of a Great Lesson about inflation and the economy. So the *New York Times* would have it –

 "The surge in bird-raising interest underscores how America's first experience of rapid inflation and shortages since the 1980s is leaving marks on society that may last after cost increases have faded."

Some accounts pass all too fluently to the Big Picture:

 "Prices on a wide variety of products have popped in recent years as unusually strong demand for goods

 spurred by pandemic lifestyle changes and savings amassed from stimulus checks — choked global shipping routes and overwhelmed factories and other producers. Those problems have only been compounded by Russia's war in Ukraine, which has disrupted global food and energy supplies."

Of course the egg shortage has nothing to do with excess demand (no, people aren't eating bigger breakfasts) nor with "choked global shipping routes" (eggs are a locally-sourced product) nor with lifestyle changes and stimulus checks. Eggs are in short supply because tens of millions of egg-laying hens have been killed by the virus or culled by public health mandates, and it will take time to replenish the flocks.

But on it goes. The Concreteness Bias is powerful. Inevitably, the "analysis" drifts into a discourse on the Federal Reserve:

• "While inflation has slowed on a yearly basis for six months, price gains are still unusually rapid. Policymakers at the Federal Reserve are trying to slow the economy and wrestle it back to a normal pace... responding to inflation by trying to rein in demand... making it expensive to borrow and spend... The Fed deters families from making big purchases...cooling consumption and slowing the job market...Eggs offer an example of why... a looser labor market might slow spending..." [??]

So, egg inflation is the domino that topples into the price chain running all the way from the Ukraine to the over-full employment picture here in the U.S. Prices may be falling almost everywhere – commodities, most food products, energy, rents, mortgage rates, used cars – but the preservation of the chicken-little inflation narrative (yes, a pun) demands that journalists, and Fed economists, make the most of what they've got, which at this point boils down to "tight labor markets" ... and of course, eggs.

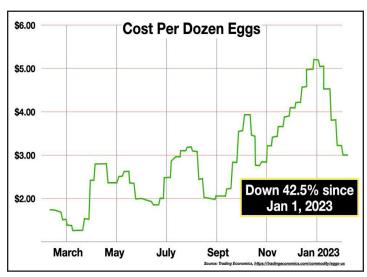
There is more to this than speculation. Experimental studies have proved that concreteness affects, and distorts, cognition. The effects are subtle, powerful, and interesting. On the one hand, the reliance on a concrete example seems to strengthen the learning process. On the other hand, it seems to hamper the reasoning process. That is, a concrete fact is more easily acquired and retained. But it is less easily generalized to other situations. If the reader is intrigued, I can recommend a very interesting article published in 2015 in the

peer-reviewed journal *Frontiers in Psychology.* The conclusion, briefly stated, is this:

 "It is those very same qualities that are so beneficial in the learning of new material—concreteness, familiarity, personal relevance—that appear so detrimental to the generalization of that knowledge."

#### Pseudo-Inflation

Egg prices are actually falling now.

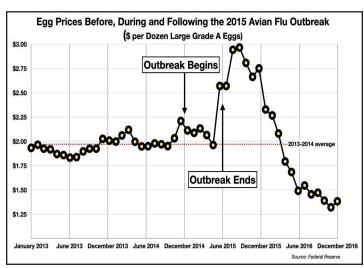


Egg Inflation is Transitory CHART BY AUTHOR

The dynamic is transitory. Temporary. Self-correcting.

It seems to me that we need a new word for this sort of thing. Price turmoil in a narrow category that is simply and directly the result of a disruption of the supply arrangements for that product, which will quickly peak and reverse and may "overshoot," collapsing the price – let us call these episodes **pseudo-inflation.** 

The last episode of avian flu, in 2015, is a good example.



Impact of the 2015 Avian Flu Epidemic on Egg Prices (\$ per Dozen Large Grade A Eggs) copy CHART BY AUTHOR

It looked, briefly, like real inflation – the sort of price pressure that we saw in the 1970s and fear to this day – but it was actually more like a stockout in the grocery store that will be cured when next week's shipment arrives.

The Concreteness Bias also impairs our judgment. It drives poor (non-rational) decision-making. *The Wall Street Journal's* egg crisis coverage takes the concreteness theme to the limit, detailing the travails of several individuals trying to cope with that extra 10 cents per egg by going full backyard self-sufficient, and raising their own chickens to get their eggs.

### Bad decision.

 "The economics are particularly bleak at the moment egg prices are surging... Mr. Kraemer estimates his six [hens] are producing fewer than two dozen eggs a month right now—but he's still spending \$30 a month on food."

Bleak, indeed. Assume a savings of, say, \$3 per dozen eggs. Mr. Kraemer (whose time is worth nothing, apparently) would need to get 10 dozen eggs out of those 6 chickens per month just to break even on the feed. That is 20 eggs per chicken per month, which is about the national average for industrial egg producers at scale. It seems a stretch for a backyard operation.

Others fare even worse.

"Trisha Nieder adopted seven chicks four months ago and estimates she's spent about \$750 on food, bedding, heat lamps and other supplies. She doesn't have a single egg to show for it. [My italics] 'You think, it's going to be so simple,' says the public-relations company vice president, who lives in Washington, Mo. 'But then you realize it's so much work.' Not only does she have to go outside to the coop in the freezing cold every morning to feed the birds and change their water—she sits outside with them for hours while they eat so that they're not snatched up by coyotes or other predators. Despite not yet seeing a return on her investment, she's already ordered eight more chicks to try to reach economy of scale. 'With inflation, you're like, 'You know what, screw it, I have to do all this."

That's the inevitable punchline of the Concreteness Bias. Eggs cost more - so "with inflation...I have to do all this." Hundreds of dollars misapplied, to solve a 10-cent problem. No efficient market guiding capital allocation here.

# The Denouement

It is easy to predict the next chapter. It will play out in one of two ways. Either the egg story will just disappear, pushed aside by the next crisis as the egg price-drop takes effect and the crisis "goes away." Or, and it is likely, at some point we'll see stories about the collapse of egg prices and the distress visited upon the egg industry, and especially on all these pioneering suburban egg farmers who tried to take matters into their own hands.

One of the other biases that behavioral finance theorists have identified is the "illusion of control bias" - defined as "the tendency for people to think that they have more control over events than they actually do."

For more on the egg crisis, see my previous columns, here:

The Federal Reserve Has An Egg Problem - And A 'Chicken-And-Egg' Problem

Is Inflation Created By Corporate Greed? Evidence From The Current Egg-Flation Episode

A Deflation Alert Hidden In The Latest Consumer Price Indicators

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