While some food staples have been highly inflation-resistant over the last two decades, others have experienced higher than normal inflation, highlighting how external factors and inputs can impact the cost of certain foods. This variance is driven by several external factors that can impact the cost of food at various stages of the supply chain— including labor shortages, volatile energy prices, transportation shortages and rate volatility, and packaging costs—all of which create unforeseen pressures for farmers, manufacturers, and grocers. Input costs far upstream of consumers, such as fertilizer, have increased substantially due in part to the war in Ukraine.

Examples of how external forces can impact the price of groceries on the store shelf include:

- Contracted cattle supply due to extreme drought and plant closures.
- Increased feed costs due to high fertilizer and corn prices.
- Increased farming, production and transportation costs due to crude oil price volatility.

With the exception of notable outliers, such as energy spikes in 2007-2008 or the 2021-2022 post-COVID inflationary period, average grocery prices have largely held steady between 1% and 4% per year over the last 20 years, averaging 2.5%.

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Bacon costs more than pork chops because it is a more labor-intensive manufactured product to cure and smoke. Consumer demand also has a major impact on price at the store.

Prior to the COVID-19 pandemic, bacon’s price when adjusted for inflation ($2.04/lb. in March 2020) was the lowest price in real dollars in a decade.

Bacon emerged as the most in-demand meat product at the start of the pandemic, resulting in corresponding price increases:

### Bacon sales YOY growth (per lb)

<table>
<thead>
<tr>
<th>Year</th>
<th>Q4 2019</th>
<th>Q1 2020</th>
<th>Q2 2020</th>
<th>Q3 2020</th>
<th>Q4 2020</th>
<th>Q1 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>+14%</td>
<td>+33%</td>
<td>+18%</td>
<td>+19%</td>
<td>+23%</td>
<td></td>
</tr>
</tbody>
</table>

Given persistent labor challenges that existed even before the pandemic, manufacturing and inflationary issues that continue to exist after the pandemic, and the overall spike in demand for bacon during the crisis, it becomes easier to see why bacon hit record high prices in recent years while the price of pork is actually cheaper in real dollars in 2023 than it was in 2003.

### Bacon Price In Real Dollars

- **2003:** $1.87/lb
- **2023:** $1.49/lb

Pork costs less than beef because pigs are easier to breed, cheaper to feed and grow faster than cows.

Pork

- While beef and bacon prices spiked during the recent inflationary period, the cost of pork chops decreased in recent years.
- Overall, the price of pork chops has fallen by 29% since 2003 when adjusted for inflation.
- The differing costs of pork products show how external inputs, consumer demand and supply chain challenges can alter the price of different food staples that come from the same source.
- When adjusted for inflation, pork costs less in 2023 than in 2003:

### Pork Price In Real Dollars

- **2003:** $1.87/lb
- **2023:** $1.49/lb

When adjusted for inflation, pork costs less in 2023 than in 2003:

Eggs

- Egg prices have remained relatively steady since 2003 despite year-over-year fluctuations:
  - $1.40/dozen in 2019 was the lowest average price for eggs since $1.31/dozen in 2006.
- Inflationary pressures combined with widespread avian flu outbreak caused eggs to spike to $2.86/dozen in 2022.
- Additional factors, including increased feed prices and elevated fuel and energy costs, also contributed to higher than normal egg prices.
- As the avian flu outbreak subsided, the price of eggs fell from $4.82/dozen in January 2023 to $2.67/dozen in May 2023.

### Eggs

- New animal welfare laws in California have the potential to increase costs for producers and ultimately shoppers.
- Price volatility is not unusual for bacon, which is historically susceptible to price swings driven by outside factors:
  - A deadly pig virus in 2013 and 2014 caused bacon to hit a then all-time-high price of $6.12/lb.
  - Adjusted for inflation, bacon actually cost more during the June 2014 shortage than the latest peak in October 2022:

### Bacon Price In Real Dollars

- **2014:** $2.56/lb
- **2022:** $2.55/lb

Bacon emerged as the most in-demand meat product at the start of the pandemic, resulting in corresponding price increases:

- High demand combined with meatpacking plant shutdowns and reduced herds led to a decrease in overall pork production in recent years, causing bacon demand to outpace supply.
- These external forces caused the price of bacon to hit a record high of $7.61/lb in October 2022.

### Bacon

- More recently, key farm input costs like fuel, fertilizer, and feed costs have increased significantly, all of which play a role in the price of bacon on store shelves. However, bacon prices have fallen dramatically as supply has rebounded.
  - At $6.34/lb. In May 2023, bacon is on par with its price in January 2013 in inflation-adjusted dollars.

Source: Bureau of Labor Statistics, Consumer Price Index

www.FMI.org
Short-term increases in grocery prices – from center aisle packaged goods to fresh perimeter staples – are significantly impacted by raw material shortages, price volatility, and unpredictability in supply chain touch points.

- The war in Ukraine increased the cost of wheat, cooking oils, livestock feed, packaging materials, fertilizer and other commodities to record levels.
- Russia’s recent exiting of the Black Sea Grain Deal – which helped reduce global food inflation by 23% in 2022 – has again disrupted the global wheat supply in 2023.

Similarly, the Ukrainian war combined with extreme weather has caused the price of edible and cooking oils to spike. These oils play an important role in food preservation, which has driven up the prices of center aisle foods.

The price for fats and oils was still subject to inflation in the first half of 2023, with the USDA reporting an 8.7% increase, although the jump was down from the 13.4% YOY increase the commodities had experienced in the first half of 2022.

Despite these issues impacting specific products, innovations and efficiencies driven by American food producers have helped to keep the cost of food relatively flat over the past 20 years. Even as the inflationary outlook remains uncertain, the food industry continues to invest in ways to ensure prices stay as low and as stable as possible:

- Artificial intelligence and blockchain technology that improves food safety, traceability and quality while reducing supply chain inefficiencies
- Outsourcing labor-intensive food preparation to reduce labor costs
- Vertical farming to boost sustainability and increase productivity
- Increased supplier and inventory redundancies to address supply chain hurdles and reduce out of stocks, including local producers and vendors
- Donating to food banks or creating prepared to-go meals using fresh produce before expiration to reduce food waste
- Use of robotics for food material handling in both packaging and transportation
- Increased use of solar and other renewables to lower electric costs

Increase in Vegetable Oil Prices

Monthly Vegetable Oils Price Index

Source: Food and Agriculture Organization of the United Nations

Source: Statista