Business Case Report: Fruit Price Analysis (2022)

# 1. Executive Summary

This report provides an analytical overview of fruit prices in various forms—fresh, canned, dried, and frozen—based on 2022 data. The objective was to understand how pricing varies across forms and compare yield amounts from various fruits to each other. With this data, you can run graphs to determine which fruit is the most cost-effective nutritional choice and which form is the best for your budget.

# 2. Objectives

We focused on three questions for our project, which were:

1- What is the most expensive fruit?

2- Does the cup equivalent size affect the retail price?

3- Does the form of the fruit (fresh, canned, frozen, and dried) affect the retail prices?

# 3. Methodology

Data was extracted from USDA and market-level sources and organized into structured formats, categorized by fruit form and store. We focused on:  
- Average prices per cup equivalent.  
- Cup equivalent size (volume per serving).  
- Prices per fruit.  
  
Basic statistical analysis was applied to identify pricing trends and cost efficiency by category.

# 4. Key Findings

## Q1: What is the Most Expensive Fruit?

- Fresh Fruits: On average, lowest cost per cup ($0.31 - $1.41), especially for bananas and apples.  
- Canned Fruits: More variation, ranging from ~$0.63 to $1.51 per cup.  
- Dried Fruits: Highest per-cup cost, often exceeding $1.00 due to density and preservation process.  
- Frozen Fruits: Mid-range in cost, typically between $1.26 and $1.59 per cup.

## Q2: Does the Cup Equivalent Size Affect the Retail Price?

- Larger cup equivalent sizes often result in lower prices per unit volume, indicating economies of scale.  
- Example: A 0.54 cup size at Aldi showed a more competitive price (~$1.17) than a 0.24 size at Dollar Tree (~$1.85).

## Q3: Does the Form of the Fruit (fresh, canned, frozen, and dried) Affect the Retail Price?

- Dried fruit has the highest retail price.   
- This could be due to the process and time involved in drying the fruit. Drying the fruit takes time and is factored into the price.

-Frozen fruit has the lowest retail price.   
- This could be because of how easy it is to process frozen fruit. Also, frozen fruit has higher water content, so you are paying for more weight which will contain water, but it is still cheaper than dried fruit.

# 5. Insights

- Form Matters: Fresh fruit remains the most affordable option per cup. Dried forms are the most expensive.  
- Size Efficiency: Retailers and consumers benefit from bulk or larger cup equivalents in terms of cost-efficiency.  
-Bigger fruits like watermelons and cantaloupes cost the least, and smaller fruits like raspberries and blackberries cost the most.

# 6. Recommendations

- For Consumers: Prioritize fresh and frozen fruit for cost-effectiveness, and remember that dried fruit is the most expensive.  
- For Retailers: Consider optimizing packaging to offer larger cup sizes at better per-unit prices.  
- For Policymakers/Nutrition Programs: Incorporate more affordable forms (like fresh bananas/apples) into food assistance plans.  
- Future Research: Include seasonal price variability and brand-level comparisons to deepen insight.