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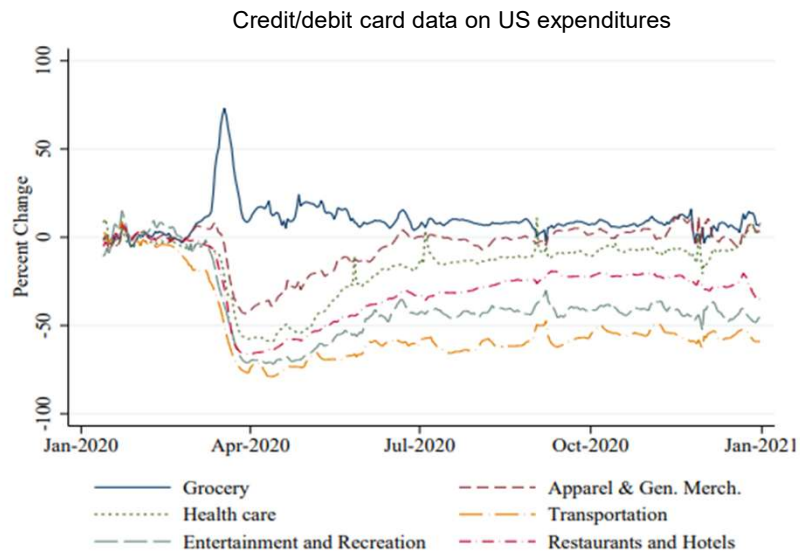
The Unequal Burden of Inflation

Alberto Cavallo

Harvard Business School, NBER

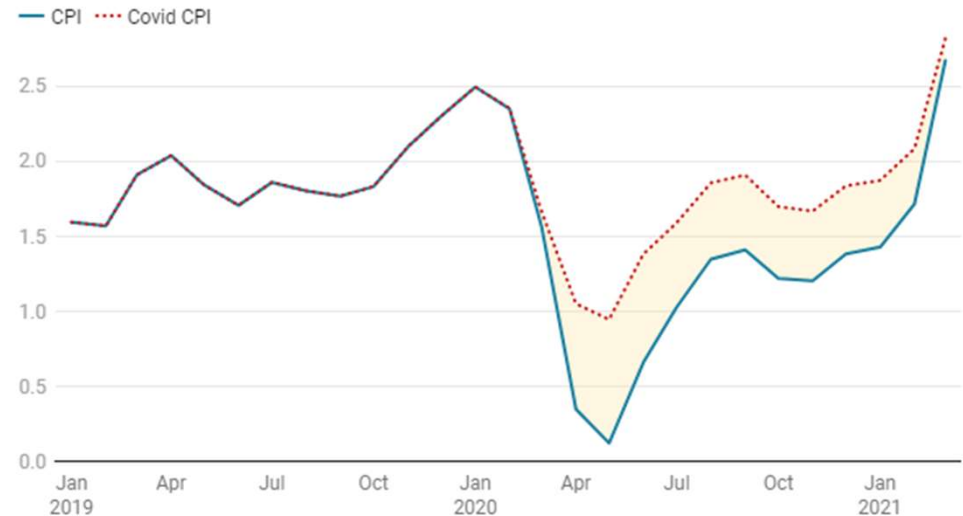
Cleveland Fed Conversations on Central Banking, November 14, 2023

In 2020, Covid expenditure changes meant that the fixed-basket CPI was underestimating the annual inflation rate



(a) Consumer Spending (Opportunity Insights)

US Covid Inflation (All-items, 12-month changes)



Source: Cavallo, Alberto (2020) "Inflation with COVID Consumption Baskets."

Low-income households were affected the most, because food-at-home prices were rising faster than transportation

Category	CPI	Low Income	High Income
Food at home	7.58	10.84	7.20
Alcoholic beverages	1.02	0.63	1.39
Apparel	2.81	2.95	3.91
Housing	42.11	42.11	37.75
Medical care	8.83	9.89	8.33
Transportation	15.74	14.84	19.57
Recreation	5.82	5.47	6.94
Education and communication	6.77	3.37	4.29
Food away from home	6.19	5.58	6.94
Other goods and services	3.13	4.32	3.66

Table A2: Initial Expenditure Weights (%), by Income

→ Initial 2019 CEX-based weights were further adjusted dynamically using card data

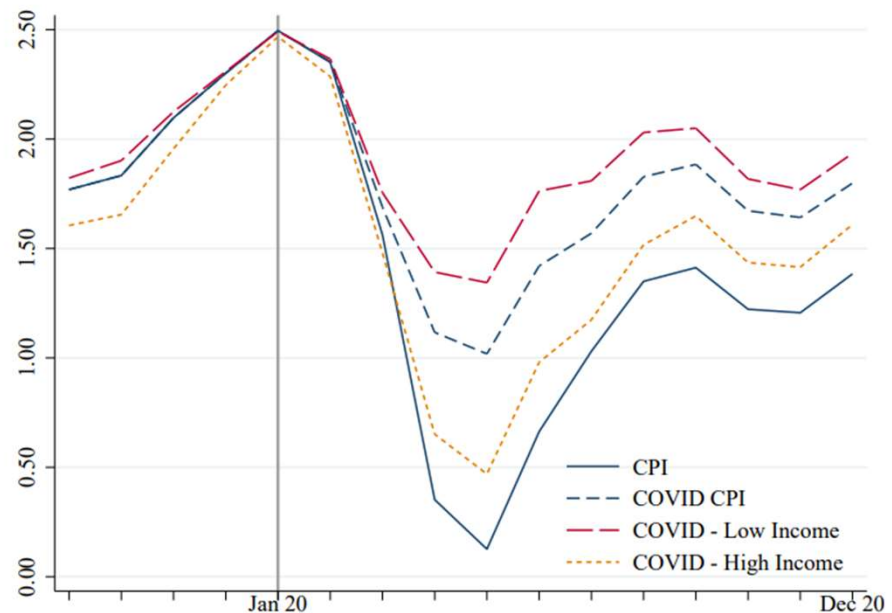


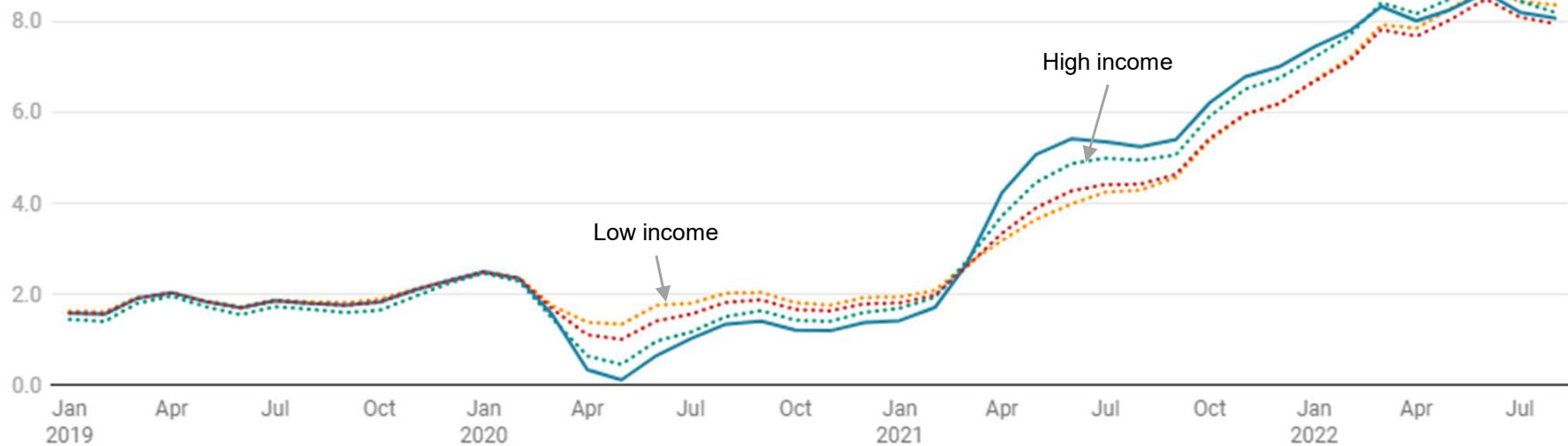
Figure 3: US Annual Inflation with Covid Expenditure Baskets

Source: Cavallo, Alberto (2020) "Inflation with COVID Consumption Baskets."

In 2021, the pattern was reversed, with higher inflation for high-income households

US Covid Inflation (All-items, 12-month changes)

— CPI ··· Covid CPI ··· Covid - High Income ··· Covid - Low Income







Note: The high-income and low-income series are not updated in real time because the data from opportunityinsights.org required to construct them are not publicly available.

Source: Cavallo (2020) Inflation with Covid Consumption Baskets - Get the data - Created with Datawrapper

Inflation Inequality *within* Categories : Cheap vs Expensive Goods

- We can use the price per unit to identify cheaper varieties within narrowly-defined categories

			
+ Add	+ Add	+ Add	+ Add
\$2 ⁵⁸ 21.5 ¢/ea	\$0 ⁷² 12.0 ¢/ea	\$3 ⁹³ 32.8 ¢/ea	\$5 ⁸² 32.3 ¢/ea
Large Cage Free Brown Eggs, 12 Count	Large White Eggs, 6 Count	Organic Cage Free Large Brown Eggs, 12 Count	Organic Cage Free Brown Large Eggs, 18 Count

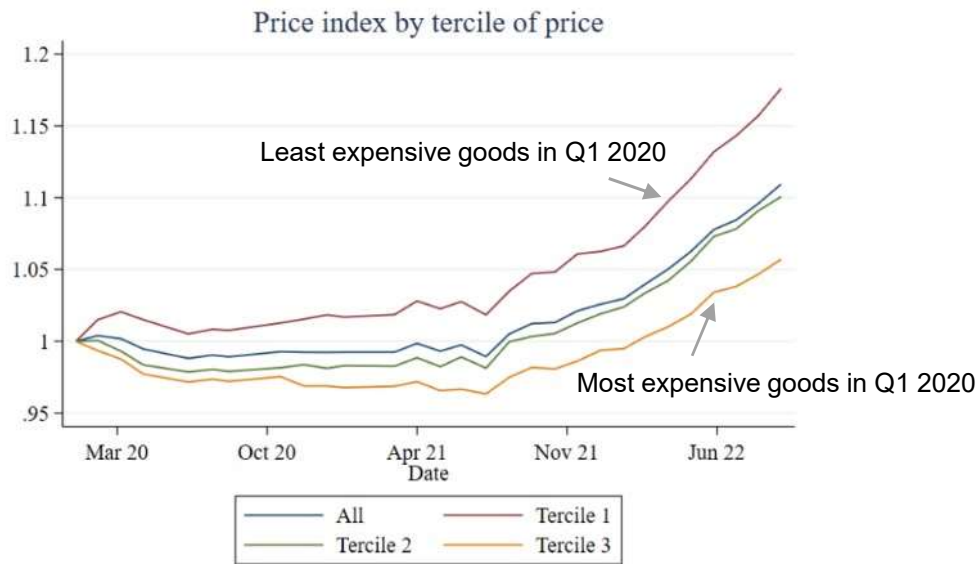
- These varieties are more likely to be chosen by low-income households

Source: Cavallo & Di Tella based on US online microdata. Preliminary Results

Note: Terciles were computed in Q1 2020 using product unit prices (eg. price per gram), within narrow categories of goods. Data from a subset of large US retailers where unit price information is available.

Cheaper varieties experienced higher inflation during Covid

(a) Price Index



(c) Annual Inflation



Source: Cavallo & Di Tella based on US online microdata. Preliminary Results

Note: Terciles were computed in Q1 2020 using product unit prices (eg. price per gram), within narrow categories of goods. Data from a subset of large US retailers where unit price information is available.