Online Appendix " Inflation with Covid Consumption Baskets"

By Alberto Cavallo July 2020

A Additional Results in the US

A.1 Category Matching

US CPI Category	OI Expenditure Category	OI Expenditure Change (April 2020 monthly average)
Food at Home	Grocery	12.3
Alcoholic Beverages [*]	Grocery	12.3
Apparel	Apparel and General Merchandise	-41.0
Housing**	-	0.0
Medical Care	Health Care	-52.2
Transportation	Transportation	-70.1
Recreation	Entertainment and Recreation	-71.1
Education and communication ^{**}	-	0.0
Food Away from Home	Restaurants and Hotels	-61.9
Other Goods and Services***	Total	-26.8

Table A1: Matching US CPI and Expenditure Categories

Notes: *Assumes the same expenditure change as "Groceries". **Assumes no change in expenditures. ***Assumes the same change as the total expenditure.

A.2 All-items CPI

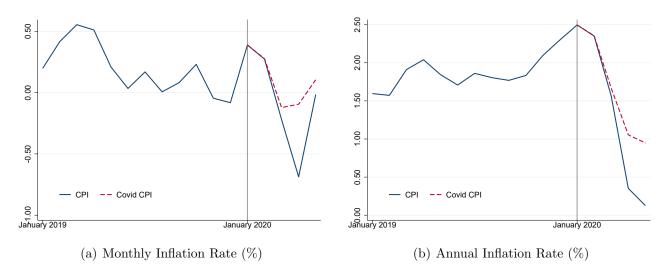
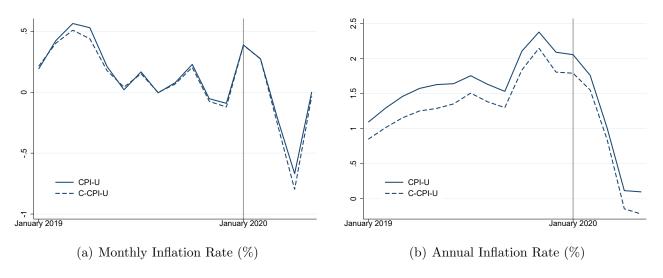
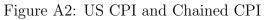


Figure A1: US CPI with Covid Expenditure Weights

Notes: These graphs show the all-items, US city average, not seasonally adjusted CPI, and an equivalent index constructed using estimates of the consumption expenditure shares under lockdown. The vertical gray line marks the start of the Covid Pandemic in January 2020.





Notes: These series are not seasonally adjusted to match the CPI indices used in the main results of the paper. The vertical gray lines mark the start of the Covid Pandemic in January 2020.

A.3 Core CPI

CPI Series	Expenditu Change (vs De- cember 2019, %)	$\begin{array}{c} {\rm CPI} \\ {\rm Monthly} \\ {\rm Inflation} \\ {\rm Rate} \\ (4/2020, \\ \%) \end{array}$	CPI weight (%)	Covid CPI weight (%)	CPI In- cidence	Covid CPI In- cidence	Additional Inci- dence
Alcoholic beverages	11.73	.3	1.02	1.91	0	.01	0
Apparel	-42.09	-4.38	2.81	2.71	12	12	0
Household furnishings and operations	0	.4	4.6	7.67	.02	.03	.01
Shelter	0	03	33.16	55.28	01	02	01
Water and sewer and trash collection services	0	.13	1.08	1.81	0	0	0
Medical care	-53.9	.28	8.83	6.79	.02	.02	01
Motor vehicle fees	-70.03	-1.06	.57	.29	01	0	0
Motor vehicle insurance	-70.03	-7.7	1.7	.85	13	07	.07
Motor vehicle maintenance and repair	-70.03	.08	1.08	.54	0	0	0
Motor vehicle parts and equipment	-70.03	53	.4	.2	0	0	0
New and used motor vehicles	-70.03	54	7.28	3.64	04	02	.02
Public transportation	-70.03	-7.39	1.27	.64	09	05	.05
Recreation	-73.35	27	5.82	2.59	02	01	.01
Education and communication	0	.13	6.77	11.29	.01	.01	.01
Other goods and services	-26.87	04	3.13	3.81	0	0	0

Table A2: US Core - Weight and Incidence in April 2020

		Inflation Rate th change, %)		Inflation Rate th change, %)
	Core CPI	Covid Core CPI	Core CPI	Covid Core CPI
January	0.40	0.40	2.27	2.27
February	0.47	0.47	2.37	2.36
March	0.02	0.04	2.10	2.12
April	-0.46	-0.21	1.43	1.71
May	-0.13	-0.01	1.20	1.59

Table A3: US Core Inflation Rates During the Covid Pandemic

Notes: This table shows the monthly and annual inflation rate in the all-items less food and energy, US city average, not seasonally adjusted CPI and an equivalent index constructed using estimates of the consumption expenditure shares during the Covid Pandemic.

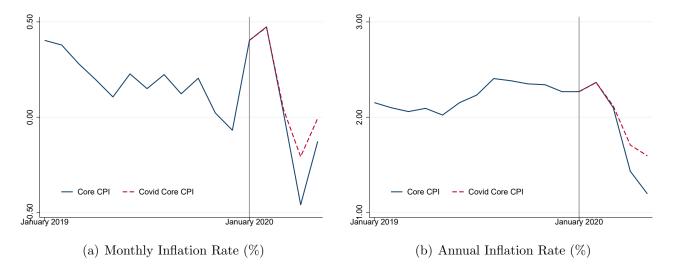
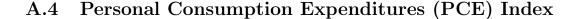
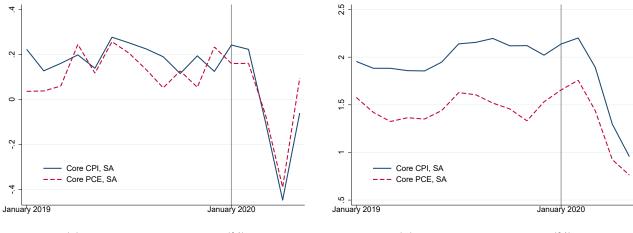


Figure A3: US Core CPI with Covid Expenditure Weights

Notes: These graphs show the all-items less food and energy, US city average, not seasonally adjusted CPI and an equivalent index constructed using estimates of the consumption expenditure shares under lockdown. The vertical gray line marks the start of the Covid Pandemic in January 2020.





(a) Monthly Inflation Rate (%)



Figure A4: US Core CPI and Core PCE

Notes: These series are all-items less food and energy, seasonally adjusted. The vertical gray lines mark the start of the Covid Pandemic in January 2020.

A.5 Income Levels

To build low and high-income inflation indices, I first calculate expenditure weights using the BLS Consumer Expenditure Survey (CEX) collected in 2018 by income quintile. The data is publicly available at https://www.bls.gov/cex/2018/combined/quintile.xlsx These expenditure shares include both urban and rural consumers. I focus on the expenditure shares for the lowest and highest quintile by income, which also matches the quintile reported in the Opportunity Insights database.

The names of the CEX categories do not perfectly match the BLS CPI sectors, so I reclassify the estimates as follows. The categories "Food at home", "Food away from home", "Alcoholic beverages", "Housing", and "Transportation" have identical names. The "Apparel and services" category is assumed to be "Apparel", "Healthcare" is assumed to be the same as "Medical care", and "Entertainment" is assumed to be equal to "Recreation". The CEX categories of "Education" and "Reading" are combined to be equivalent to the "Education and communication" CPI category. Finally, the CEX categories of "Tobacco products and smoking supplies", "Miscellaneous", and "Personal care products and services" are matched to the "Other goods and services" CPI category. Expenditure weights for both low and high income groups

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

are then calculated based on this matching. The results are shown in Table ??.

Table A4: Initial Expenditure Weights, by Income

Notes: The CPI weights in the second column correspond to the benchmark all-items CPI for urban consumers. "Low Income" weights are estimated for households in the lowest quintile of the income distribution. "High Income" weights are estimated for households in the highest quintile of the income distribution. Both the "Low Income" and "High Income" weights are calculated using expendituers for both urban and rural households.

These weights remain constant for 2019. Starting in January 2020 they are updated using the changes in spending patterns by income quintile across sectors computed by Opportunity Insights and shown in Figure A5.

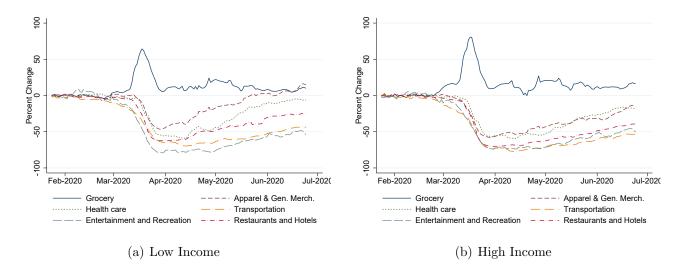


Figure A5: Changes in US Consumer Spending, by Income Level

Figure A6 shows the fixed-weight and updated Covid weights indices for both the low and high income group. The annual inflation rate is higher with the Covid basket for both groups.

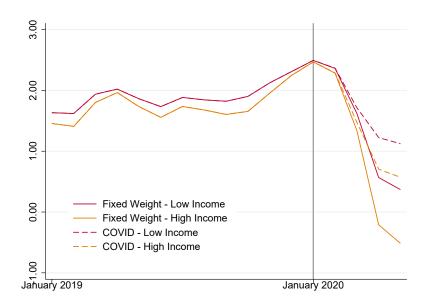


Figure A6: US Annual Inflation by Income, with Fixed and Covid Weights

A.6 Other Covid Measurement Biases

My findings explore what happens with the expenditure basket at upper levels of the CPI during the Pandemic. A large literature has explored this type of upper-level bias in the CPI in the past. See Lebow and Rudd (2003) for a review of the earlier literature. The standard result in most papers is that the fixed-basket CPI tends to overestimate the level of inflation because it does not allow for changes in consumption patterns that should tend to increase expenditures in categories with lower inflation. This makes my results during the Pandemic even more surprising, because the Covid index should explicitly take into account this upper-level substitution in expenditures. Instead, the lockdowns and Covid-related changes in consumption patterns appear to have restricted the ability of consumers to make these expenditure switching, at least at upper levels of aggregation.

In addition, there are related measurement challenges at lower levels of aggregation as well that are particular to this crisis. Diewert and Fox (2020) describe the *disappearing goods* bias, which occurs when some products' prices are no longer available to construct elementary price indices at the most disaggregated level of the CPI. For example, the share of products with missing prices in the US CPI rose from 14% in April 2019 to 34% in April 2020. In part, this reflects the challenges of collecting data during this period (the BLS suspended physical data

collections in March). Still, some prices are likely missing due to stock-outs that resulted from the surge in panic-buying and supply disruptions caused by the Pandemic.¹¹ As Diewert and Fox (2020) note, the out-of-stock products are likely to have higher market-clearing prices than those for continuing goods, potentially introducing an additional downward bias on the CPI that reinforces the results in my paper.

The Pandemic is also likely to introduce an *outlet* bias, as a large share of total spending moves online. In Cavallo (2017), I showed that multi-channel retailers tend to have identical prices offline and online, so the products bought in this type of retailer (often under the "pick up in store" modality) are not likely affected. However, the use of online delivery platforms, such as Instacart and Shipt in the US, has soared during the Pandemic. Most retailers in these platforms tend to have higher prices than in their physical stores.¹² If this is not accounted for in the data collection methodology used by the NSO, the change in spending outlets could cause another downward bias in the CPI.

B Additional Results in Other Countries

B.1 Category Matching

Table A5 shows the matching between the COICOP CPI categories used by all countries (except the US), and the OI expenditure data categories.

COICOP Code	COICOP Category	OI Expenditure Category	OI Expenditure Change (April 2020 monthly average)
100	Food and Non-Alcoholic Beverages	Grocery	12.3
200	Alcoholic Beverages and Tobacco	Grocery	12.3
300	Clothing and Footwear	Apparel and General Merchandise	-41.0
400	Housing, Water, Electricity, Gas and other Fuels	-	0.0
500	Furnishings, Household Equip. and Maint. of the House	Total	-26.8
600	Health	Health Care	-52.2
700	Transport	Transportation	-70.1
800	Communications	-	0.0
900	Recreation and Culture	Entertainment and Recreation	-71.1
1000	Education	-	0.0
1100	Restaurants and Hotels	Restaurants and Hotels	-61.9
1200	Miscellaneous Goods and Services	Total	-26.8

Table A5: Matching CPI and Expenditure Categories in other Countries

This table is equivalent to Table A1. All assumptions remain the same, with the addition of category "Furnishings, Household Equipment, and Routine Maintenance of the House" where I

¹¹See Bureau of Labor Statistics (2020b)

 $^{^{12}}$ See Instacart (2020) and Shipt (2020)

assume that the expenditures changes are equal to those of the total OI basket, given that it is composed of a variety of household items, textiles, and related goods.

B.2 Weights and Incidence in April 2020

COICOP Category	Expenditure Change (vs December 2019, %)	CPI Monthly Inflation Rate (4/2020, %)	CPI weight (%)	Covid CPI weight (%)	CPI Incidence	Covid CPI Incidence	Additional Incidence
100	11.73	3.21	24.7	45.06	.79	1.44	.65
200	11.73	1.01	2.57	4.69	.03	.05	.02
300	-42.09	1.4	8.34	7.89	.12	.11	01
400	0	.21	8.26	13.49	.02	.03	.01
500	-26.87	.96	6.84	8.17	.07	.08	.01
600	-53.89	.85	3.8	2.86	.03	.02	01
700	-70.03	1.86	9.22	4.51	.17	.08	09
900	-73.35	2.07	5.75	2.5	.12	.05	07
1000	0	-2.18	0	0	0	0	0
1100	-62.1	1.4	7.68	4.75	.11	.07	04
1200	-26.87	38	5.09	6.08	02	02	0

Table A6: Argentina - Weight and Incidence in April 2020

Table A7: Brazil - Weight and Incidence in April 2020

COICOP Category	Expenditure Change (vs December 2019, %)	CPI Monthly Inflation Rate (4/2020, %)	CPI weight (%)	Covid CPI weight (%)	CPI Incidence	Covid CPI Incidence	Additional Incidence
100	11.73	2.24	14.82	23.86	.33	.53	.2
200	11.73	.21	1.34	2.16	0	0	0
300	-42.09	.1	6.11	5.1	.01	.01	0
400	0	1	13.89	20.02	01	02	01
500	-26.87	-1.37	8.17	8.6	11	12	01
600	-53.89	22	5.42	3.6	01	01	0
700	-70.03	-2.66	19.78	8.54	53	23	.3
800	0	2	4.85	6.99	01	01	0
900	-73.35	69	4.41	1.69	03	01	.02
1000	0	0	3.62	5.22	0	0	0
1100	-62.1	.76	8.5	4.64	.06	.04	03
1200	-26.87	.19	9.09	9.58	.02	.02	0

COICOP Category	Expenditure Change (vs December 2019, %)	CPI Monthly Inflation Rate (4/2020, %)	CPI weight (%)	Covid CPI weight (%)	CPI Incidence	Covid CPI Incidence	Additional Incidence
100	11.73	.79	11.32	17.51	.09	.14	.05
200	11.73	.35	2.54	3.93	.01	.01	0
300	-42.09	-5.86	4.86	3.9	28	23	.06
400	0	34	25.88	35.82	09	12	03
500	-26.87	.4	6.19	6.27	.03	.03	0
600	-53.89	.53	2.79	1.78	.01	.01	01
700	-70.03	-1.58	17.04	7.07	27	11	.16
800	0	75	3.46	4.79	03	04	01
900	-73.35	-1.08	7.42	2.74	08	03	.05
1000	0	0	2.85	3.94	0	0	0
1100	-62.1	38	6.72	3.53	03	01	.01
1200	-26.87	.04	8.63	8.74	0	0	0

Table A8: Canada - Weight and Incidence in April 2020

Table A9: Chile - Weight and Incidence in April 2020

COICOP Category	Expenditure Change (vs December 2019, %)	CPI Monthly Inflation Rate (4/2020, %)	CPI weight (%)	Covid CPI weight (%)	CPI Incidence	Covid CPI Incidence	Additional Incidence
100	11.73	1	19.06	28.15	.19	.28	.09
200	11.73	1.44	3.31	4.89	.05	.07	.02
300	-42.09	-3.24	4.48	3.43	15	11	.03
400	0	.03	13.83	18.28	0	.01	0
500	-26.87	03	7.02	6.79	0	0	0
600	-53.89	.41	6.44	3.93	.03	.02	01
700	-70.03	85	14.47	5.73	12	05	.07
800	0	69	5	6.61	03	05	01
900	-73.35	04	6.76	2.38	0	0	0
1000	0	42	8.09	10.69	03	04	01
1100	-62.1	19	4.37	2.19	01	0	0
1200	-26.87	84	7.16	6.92	06	06	0

COICOP Category	Expenditure Change (vs December 2019, %)	CPI Monthly Inflation Rate (4/2020, %)	CPI weight (%)	Covid CPI weight (%)	CPI Incidence	Covid CPI Incidence	Additional Incidence
100	11.73	2.04	15.04	16.18	.31	.33	.02
200	11.73	.12	1.7	1.83	0	0	0
300	-42.09	39	3.97	2.21	02	01	.01
400	0	.15	58.28	56.11	.09	.09	0
500	-26.87	.07	4.16	2.93	0	0	0
600	-53.89	.51	1.61	.71	.01	0	0
700	-70.03	89	12.88	3.72	11	03	.08
800	0	-2.97	4.33	4.17	13	12	0
900	-73.35	.03	2.66	.68	0	0	0
1000	0	.01	4.4	4.24	0	0	0
1100	-62.1	.16	9.43	3.44	.02	.01	01
1200	-26.87	.22	5.36	3.77	.01	.01	0

Table A10: Colombia - Weight and Incidence in April 2020

Table A11: France - Weight and Incidence in April 2020

COICOP Category	Expenditure Change (vs December 2019, %)	$\begin{array}{c} \text{CPI} \\ \text{Monthly} \\ \text{Inflation} \\ \text{Rate} \\ (4/2020, \\ \%) \end{array}$	CPI weight (%)	Covid CPI weight (%)	CPI Incidence	Covid CPI Incidence	Additional Incidence
100	11.73	2.13	16	25.45	.34	.54	.2
200	11.73	33	4.24	6.75	01	02	01
300	-42.09	05	4.93	4.07	0	0	0
400	0	61	15.8	22.49	1	14	04
500	-26.87	.35	5.85	6.09	.02	.02	0
600	-53.89	.46	4.46	2.93	.02	.01	01
700	-70.03	-1.45	15.92	6.79	23	1	.13
800	0	-2.65	3.18	4.53	08	12	04
900	-73.35	.74	8.92	3.39	.07	.03	04
1000	0	.02	.38	.54	0	0	0
1100	-62.1	88	8.31	4.48	07	04	.03
1200	-26.87	.36	12	12.49	.04	.04	0

COICOP Category	Expenditure Change (vs December 2019, %)	CPI Monthly Inflation Rate (4/2020, %)	CPI weight (%)	Covid CPI weight (%)	CPI Incidence	Covid CPI Incidence	Additional Incidence
100	11.73	.99	12.21	18.71	.12	.19	.06
200	11.73	1.25	4.33	6.63	.05	.08	.03
300	-42.09	94	5.16	4.09	05	04	.01
400	0	.09	21.12	28.96	.02	.03	.01
500	-26.87	.58	5.67	5.69	.03	.03	0
600	-53.89	.28	5.51	3.48	.02	.01	01
700	-70.03	-1.42	15.48	6.36	22	09	.13
800	0	1	6.06	8.31	01	01	0
900	-73.35	4.23	13.24	4.84	.56	.2	36
1000	0	1	1.12	1.54	0	0	0
1100	-62.1	.18	5.62	2.92	.01	.01	0
1200	-26.87	.37	8.46	8.48	.03	.03	0

Table A12: Germany - Weight and Incidence in April 2020

Table A13: Greece - Weight and Incidence in April 2020

COICOP Category	Expenditure Change (vs December 2019, %)	$\begin{array}{c} {\rm CPI}\\ {\rm Monthly}\\ {\rm Inflation}\\ {\rm Rate}\\ (4/2020,\\ \%) \end{array}$	CPI weight (%)	Covid CPI weight (%)	CPI Incidence	Covid CPI Incidence	Additional Incidence
100	11.73	.77	19.59	31.24	.15	.24	.09
200	11.73	39	5.11	8.16	02	03	01
300	-42.09	.42	4.37	3.61	.02	.02	0
400	0	-2.05	9.56	13.65	2	28	08
500	-26.87	54	3.69	3.85	02	02	0
600	-53.89	14	5.16	3.39	01	0	0
700	-70.03	-1.53	16.38	7.01	25	11	.14
800	0	54	5.25	7.49	03	04	01
900	-73.35	.33	3.96	1.51	.01	0	01
1000	0	0	2.45	3.5	0	0	0
1100	-62.1	1.11	17.82	9.64	.2	.11	09
1200	-26.87	.08	6.66	6.96	.01	.01	0

COICOP Category	Expenditure Change (vs December 2019, %)	CPI Monthly Inflation Rate (4/2020, %)	CPI weight (%)	Covid CPI weight (%)	CPI Incidence	Covid CPI Incidence	Additional Incidence
100	11.73	.32	11.87	20.02	.04	.06	.03
200	11.73	1.18	5.82	9.82	.07	.12	.05
300	-42.09	-1.98	5.21	4.55	1	09	.01
400	0	-2.67	12.58	18.99	34	51	17
500	-26.87	83	5.28	5.83	04	05	0
600	-53.89	.19	6.09	4.24	.01	.01	0
700	-70.03	78	14	6.33	11	05	.06
800	0	11	3.37	5.08	0	01	0
900	-73.35	.1	7.56	3.04	.01	0	0
1000	0	0	2.18	3.29	0	0	0
1100	-62.1	.45	18.64	10.66	.08	.05	04
1200	-26.87	52	7.39	8.15	04	04	0

Table A14: Ireland - Weight and Incidence in April 2020

Table A15: Italy - Weight and Incidence in April 2020

COICOP Category	Expenditure Change (vs December 2019, %)	$\begin{array}{c} \text{CPI} \\ \text{Monthly} \\ \text{Inflation} \\ \text{Rate} \\ (4/2020, \\ \%) \end{array}$	CPI weight (%)	Covid CPI weight (%)	CPI Incidence	Covid CPI Incidence	Additional Incidence
100	11.73	1.23	17.52	28.26	.22	.35	.13
200	11.73	.27	3.4	5.48	.01	.01	.01
300	-42.09	4.5	8.47	7.08	.38	.32	06
400	0	-3.87	11.41	16.47	44	64	2
500	-26.87	.3	7.7	8.13	.02	.02	0
600	-53.89	.1	4.31	2.87	0	0	0
700	-70.03	58	14.79	6.4	09	04	.05
800	0	0	2.78	4.01	0	0	0
900	-73.35	0	6.24	2.4	0	0	0
1000	0	0	1.29	1.86	0	0	0
1100	-62.1	2.5	12.21	6.68	.31	.17	14
1200	-26.87	.09	9.81	10.36	.01	.01	0

COICOP Category	Expenditure Change (vs December 2019, %)	CPI Monthly Inflation Rate (4/2020, %)	CPI weight (%)	Covid CPI weight (%)	CPI Incidence	Covid CPI Incidence	Additional Incidence
100	11.73	.86	19.84	27.54	.17	.24	.07
200	11.73	19	1.64	2.28	0	0	0
300	-42.09	2.14	4.13	2.97	.09	.06	02
400	0	15	28.32	35.18	04	05	01
500	-26.87	.69	3.49	3.17	.02	.02	0
600	-53.89	19	4.3	2.46	01	0	0
700	-70.03	-2.48	8.39	3.12	21	08	.13
800	0	33	5.79	7.19	02	02	0
900	-73.35	0	6.85	2.27	0	0	0
1000	0	-1.69	3.17	3.94	05	07	01
1100	-62.1	09	6.34	2.98	01	0	0
1200	-26.87	1	7.58	6.89	01	01	0

Table A16: Japan - Weight and Incidence in April 2020

Table A17: Korea - Weight and Incidence in April 2020

COICOP Category	Expenditure Change (vs December 2019, %)	CPI Monthly Inflation Rate (4/2020, %)	CPI weight (%)	Covid CPI weight (%)	CPI Incidence	Covid CPI Incidence	Additional Incidence
100	11.73	.03	14.21	22.23	0	.01	0
200	11.73	02	1.14	1.79	0	0	0
300	-42.09	77	6.75	5.47	05	04	.01
400	0	15	10.42	14.6	02	02	01
500	-26.87	08	3.79	3.88	0	0	0
600	-53.89	.09	6.46	4.17	.01	0	0
700	-70.03	-3.45	11.79	4.95	41	17	.24
800	0	.66	6.2	8.68	.04	.06	.02
900	-73.35	12	5.49	2.05	01	0	0
1000	0	-1.51	11.74	16.44	18	25	07
1100	-62.1	.07	12.68	6.73	.01	0	0
1200	-26.87	29	8.8	9.01	03	03	0

COICOP Category	Expenditure Change (vs December 2019, %)	$\begin{array}{c} \text{CPI} \\ \text{Monthly} \\ \text{Inflation} \\ \text{Rate} \\ (4/2020, \\ \%) \end{array}$	CPI weight (%)	Covid CPI weight (%)	CPI Incidence	Covid CPI Incidence	Additional Incidence
100	11.73	.66	14.59	23.65	.1	.16	.06
200	11.73	55	3.38	5.49	02	03	01
300	-42.09	01	6.14	5.16	0	0	0
400	0	35	15.78	22.9	06	08	03
500	-26.87	.13	6.54	6.94	.01	.01	0
600	-53.89	.36	2.93	1.96	.01	.01	0
700	-70.03	1.33	14.1	6.13	.19	.08	11
800	0	73	3.91	5.68	03	04	01
900	-73.35	.67	12.35	4.77	.08	.03	05
1000	0	0	.98	1.42	0	0	0
1100	-62.1	7	8.73	4.8	.61	.34	27
1200	-26.87	.35	10.46	11.1	.04	.04	0

Table A18: Netherlands - Weight and Incidence in April 2020

Table A19: Russia - Weight and Incidence in April 2020

COICOP Category	Expenditure Change (vs December 2019, %)	CPI Monthly Inflation Rate (4/2020, %)	CPI weight (%)	Covid CPI weight (%)	CPI Incidence	Covid CPI Incidence	Additional Incidence
100	11.73	2.06	30.76	43.43	.63	.89	.26
200	11.73	.45	5.88	8.31	.03	.04	.01
300	-42.09	07	9.49	6.95	01	0	0
400	0	.06	11.03	13.95	.01	.01	0
500	-26.87	.6	5.71	5.28	.03	.03	0
600	-53.89	1.83	3.88	2.26	.07	.04	03
700	-70.03	.25	13.33	5.05	.03	.01	02
800	0	.29	2.97	3.75	.01	.01	0
900	-73.35	.25	6.28	2.12	.02	.01	01
1000	0	0	1.28	1.61	0	0	0
1100	-62.1	.28	2.8	1.34	.01	0	0
1200	-26.87	.19	6.45	5.96	.01	.01	0

Table A20: Southafrica - Weight and Incidence in April 2020

$\begin{array}{c cccc} \text{COICOP Category} & \begin{array}{c} \text{CPI} & & \\ \text{Kange} & \text{Inflation} & \text{CPI} & \text{Covid CPI} & \text{CPI} & \text{Covid CPI} & \text{Covid CPI} & \text{Additional} \\ \text{(vs} & \text{Rate} & & \text{weight} & \text{weight} & \text{Incidence} & \text{Incidence} & \text{Incidence} \\ \text{December} & & \begin{array}{c} 4/2020, \\ \% \end{array} & & \end{array} \\ \end{array}$
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COICOP Category	Expenditure Change (vs December 2019, %)	CPI Monthly Inflation Rate (4/2020, %)	CPI weight (%)	Covid CPI weight (%)	CPI Incidence	Covid CPI Incidence	Additional Incidence
100	11.73	1.41	19.17	29.32	.27	.41	.14
200	11.73	.15	2.92	4.47	0	.01	0
300	-42.09	8.99	6.54	5.19	.59	.47	12
400	0	-1.98	13.07	17.9	26	35	1
500	-26.87	.33	5.71	5.72	.02	.02	0
600	-53.89	.04	3.84	2.42	0	0	0
700	-70.03	-3.12	14.71	6.04	46	19	.27
800	0	17	6.63	9.07	01	02	0
900	-73.35	1.02	7.13	2.6	.07	.03	05
1000	0	.01	1.6	2.19	0	0	0
1100	-62.1	1.16	14.02	7.27	.16	.08	08
1200	-26.87	.15	7.8	7.81	.01	.01	0

Table A21: Spain - Weight and Incidence in April 2020

Table A22: Turkey - Weight and Incidence in April 2020

COICOP Category	Expenditure Change (vs December 2019, %)	$\begin{array}{c} \text{CPI} \\ \text{Monthly} \\ \text{Inflation} \\ \text{Rate} \\ (4/2020, \\ \%) \end{array}$	CPI weight (%)	Covid CPI weight (%)	CPI Incidence	Covid CPI Incidence	Additional Incidence
100	11.73	2.53	21.77	32.93	.55	.83	.28
200	11.73	.02	5.87	8.88	0	0	0
300	-42.09	4.08	7.32	5.74	.3	.23	06
400	0	31	14.85	20.1	05	06	02
500	-26.87	1.09	7.72	7.64	.08	.08	0
600	-53.89	.53	2.63	1.64	.01	.01	01
700	-70.03	-1.83	16.31	6.62	3	12	.18
800	0	-1.23	7.5	10.16	09	13	03
900	-73.35	67	3.62	1.31	02	01	.02
1200	-26.87	4.66	5.04	4.99	.24	.23	0

COICOP Category	Expenditure Change (vs December 2019, %)	CPI Monthly Inflation Rate (4/2020, %)	CPI weight (%)	Covid CPI weight (%)	CPI Incidence	Covid CPI Incidence	Additional Incidence
100	11.73	29	10.3	17.72	03	05	02
200	11.73	.69	4.3	7.4	.03	.05	.02
300	-42.09	-1.68	6.1	5.44	1	09	.01
400	0	47	11.8	18.17	06	09	03
500	-26.87	-1.61	6.1	6.87	1	11	01
600	-53.89	18	2.6	1.85	0	0	0
700	-70.03	0	16	7.38	0	0	0
800	0	.44	4.9	7.55	.02	.03	.01
900	-73.35	.37	14.8	6.07	.05	.02	03
1000	0	0	2.2	3.39	0	0	0
1100	-62.1	.71	12.6	7.35	.09	.05	04
1200	-26.87	85	9.6	10.81	08	09	01

Table A23: Uk - Weight and Incidence in April 2020

Table A24: Uruguay - Weight and Incidence in April 2020

COICOP Category	Expenditure Change (vs December 2019, %)	CPI Monthly Inflation Rate (4/2020, %)	CPI weight (%)	Covid CPI weight (%)	CPI Incidence	Covid CPI Incidence	Additional Incidence
100	11.73	4.44	26.06	37.68	1.16	1.67	.52
200	11.73	.31	4.29	6.21	.01	.02	.01
300	-42.09	.63	5.37	4.03	.03	.03	01
400	0	4.43	13.68	17.7	.61	.78	.18
500	-26.87	1.37	5.73	5.43	.08	.07	0
600	-53.89	.63	7.71	4.6	.05	.03	02
700	-70.03	.33	10.13	3.93	.03	.01	02
800	0	5.84	3.36	4.35	.2	.25	.06
900	-73.35	8	6.49	2.24	05	02	.03
1000	0	-4.81	3.14	4.07	15	2	04
1100	-62.1	.55	7.7	3.78	.04	.02	02
1200	-26.87	.91	6.33	5.99	.06	.05	0