The Intergenerational Effects of Economic Sanctions Online Appendix: Effects of the Sanctions on Consumption Expenditures

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In this online appendix, I present the effect of 2006 UN economic sanction against Iran on sub-categories of household expenditure .

1 Appendix: Effects on Consumption Expenditures

The total real income of families that the head works in the oil and gas industry decreased by 10% after the sanction imposed in 2007. Households change their behavior pattern in response to changes in income and price of goods and services (real income) in order to minimize the adverse welfare effects of sanctions. There are three key mechanisms. First, people move. Some workers might shift from oil and gas industry to other economic sections. Second, households can draw down savings or sell off assets to mitigate the impact of a negative income shock. Third, households can cut spending on some classes of goods. First and second mechanisms are discussed in the main text. In this online appendix, I present the analysis for the third mechanism which I left out of the main text.

As Figure 1 shows Food and clothing (more than 50%) take up the highest percentage of Iranian households total expenditure. Table 1 shows effect of the sanctions on household expenditure. As mentioned before, total income of families that the head works in oil and gas industry decreased by 10%. As the results, they reduced the total spending by 5%. Although spending decreased for most components, it did not decrease by the same rate. In particular, households cut spending on education by 61%. Moreover, spending share on education decreased by 0.7%. The spending on food did not significantly decreased because it is a necessary expenditure. Spending on Education and Recreation and culture that affect human capital experienced large reduction, perhaps because an alternative (public education) is available.

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Figure 1: Household Spending Before and After the Sanctions

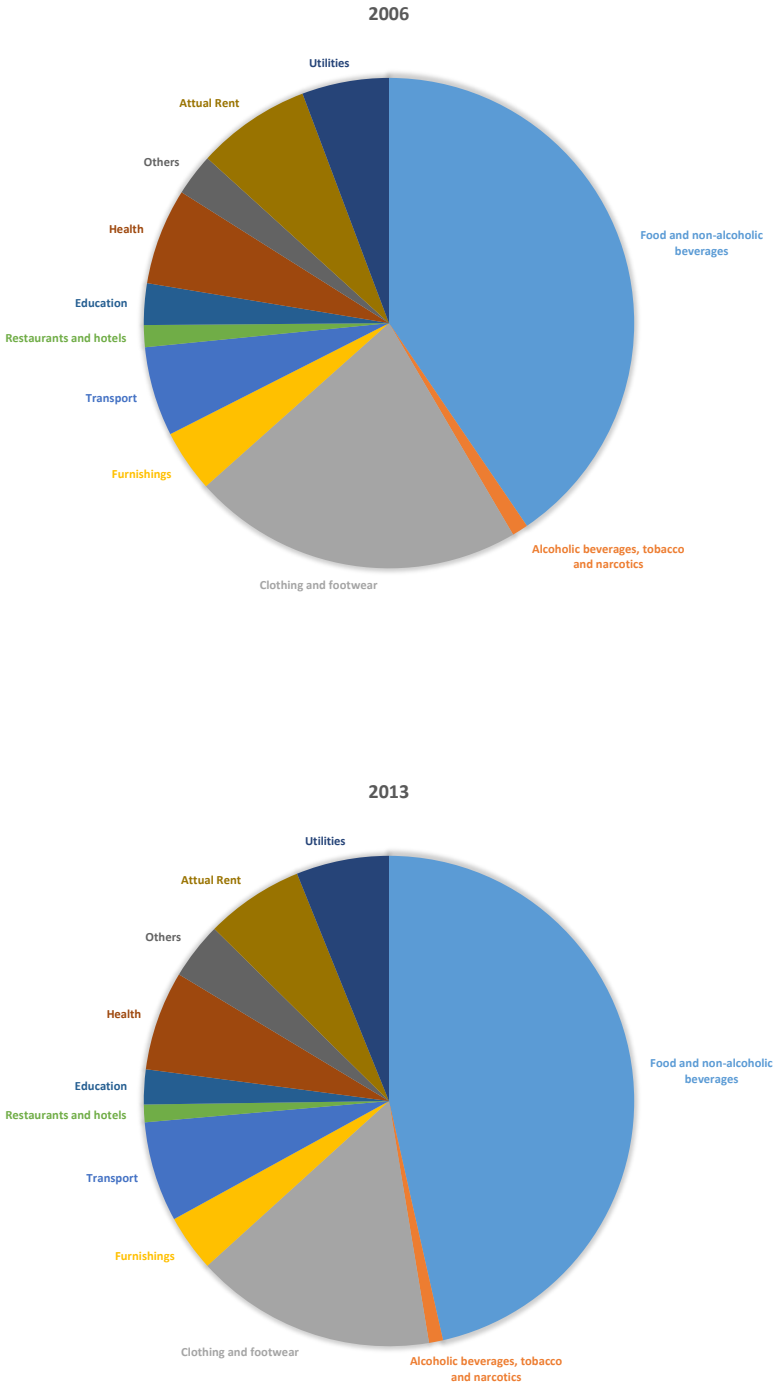

Table 1: Effect on Consumption Expenditure of Households

Variable	share (before)	All Households	
		log	share
Food	29.54	-0.08	-0.007
		(0.06)	(0.011)
Alcoholic beverages, tobacco and narcotics	0.61	-0.17	-0.000
		(0.27)	(0.001)
Restaurants and hotels	0.29	-0.15	-0.002
		(0.38)	(0.001)
Clothing and footwear	37.31	-0.45	-0.110
		(0.38	(0.588)
Housing (actual rent+utilities)	7.21	-0.47**	-0.007
		(0.21)	(0.010)
Furnishings, household equipment and routine	2.31	0.12	0.002
		(0.20)	(0.002)
Health	4.55	1.06***	0.013**
		(0.32)	(0.005)
Transport	3.56	-0.03	-0.001
		(0.11)	(0.003)
Recreation and culture	0.52	-0.66*	-0.001
		(0.35)	(0.001)
Education	2.19	-0.61**	-0.007**
		(0.25)	(0.003)
Miscellaneous goods and services	1.65	-0.08	0.002*
		(0.20)	(0.001)
Total Expenditure		-0.05	-
		(0.08)	-
Observations		5,335	5,335

Notes: This table presents estimated coefficients of Post × Treat. Dependent variables are family expenditure on different classes of goods according to COICOP classification. Dependent variables have been deflated by CPI which equals 100 in year 2011. Heteroskedasticity-consistent standard errors accounting for clustering at the province and industry level in parentheses. The time period is 1995-2013. *Significant at 10% level; **significant at 5% level; *** significant at 1% level. Treatment group: Oil & Gas industry, control group: Water Supply & Information industries.

Using HIES, I cannot assess the effect of sanction on health status because I do not observe health indicators. However, I examine the effect of the 2006 sanctions on health expenditure. As explained in the main text, government spending on health did not show a significant response to oil shocks. Table 2 shows the effect of sanctions on private expenditure on health. As this Table shows, household spending on health increased by 84% because of an increase in spending on medical products, appliances and equipment.

Table 2: Effect on Household Health Spending by Item

Dependent Variable	share of total expenditure	γ log	γ share
Total Health Expenditure	4.74	0.840**	0.005
		(0.404)	0.006
by item:			
(1) Medical Products, Appliances and Equipment	1.62	1.376**	0.424*
		(0.544)	(0.226)
(2) Outpatient Services	2.42	0.549	0.165
		(0.577)	(0.274)
(3) Hospital Services	0,98	-0.115	-0.274
		(0.331)	(0.421)
Observations		2,902	2,902

Notes: This table presents estimated coefficients of Post $\times$ Treat. Dependent variables are log of different classes of health expenditures according to COICOP classification. All health expenditures have been deflated by Health Price Index, which equals 100 in year 2011. The time period is 1995-2013. Share of each item of total expenditure is calculated for 2006. Heteroskedasticity-consistent standard errors accounting for clustering at the province and industry level in parentheses. *Significant at 10% level; **significant at 5% level; *** significant at 1% level. Treatment group: Oil and Gas industry, control group: Water Supply and Information industries.

Medical products, appliances and equipment covers medicaments, prostheses, medical appliances and equipment and other health-related products obtained by individuals or households, either with or without a prescription, usually from dispensing chemists, pharmacists or medical equipment suppliers. They are intended for consumption or use outside a health facility or institution.

Outpatient services covers medical, dental and paramedical services delivered to outpatients by medical, dental and paramedical practitioners and auxiliaries.

Hospital services covers the services of general and specialist hospitals, the services of medical centres, maternity centres, nursing homes and convalescent homes which chiefly provide in-patient services, the services of military base hospitals, the services of institutions serving old people in which medical monitoring is an essential component and the services of rehabilitation centres providing in-patient health care and rehabilitative therapy where the objective is to treat the patient rather than to provide long-term support.