

Data Appendix

Household Impacts of Tariffs

1 Introduction

To help researchers and policymakers analyze the distributional impacts of trade and tariffs, the *Household Impacts of Tariffs (HIT)* dataset contains harmonized household survey and tariff data for 54 low and lower middle income countries. It includes highly disaggregated information on household budget and income shares for 53 agricultural products, wage labor income, non-farm enterprise sales and transfers as well as spending on manufacturing and services for each percentile of the real income distribution.

While the data were harmonized in order to facilitate analysis of the impacts of trade policy, in principle they can be used for a wide variety of purposes, including analyzing the impacts of Value Added Taxes, and social safety net reforms. The HIT database is not the World Bank Group's official poverty data, which can be found in [PovcalNet](#). HIT consumption aggregates may differ from those in PovcalNet because the methodology used to calculate aggregate consumption differs from that of PovcalNet, as discussed in more detail below.

This note describes how the data were constructed, where the original household survey and tariff data can be requested, and how the tariff data can be updated. It also offers a description of the variables included in the dataset.

2 Representativeness and Selection of Surveys

Household surveys included in the database are ones that are (i) nationally representative (ii) contain information on both household incomes and expenditures for the same households and (iii) were relatively recently conducted and were accessible to the research team.¹ The HIT database covers all low income countries for which relevant household survey data were available, as well as a number of middle income countries.

Since many of the surveys are subject to confidentiality agreements, we aggregate the households and other statistics for each percentile of the household per capita real income distribution. The database thus has 5400 observations but is based on an underlying dataset of 521,639 households which are in turn representative of approximately 1.8 billion people.

¹ For some countries there are more recent surveys that we were not able to access at the time this research was conducted

3 Harmonizing household survey and tariff data

Tariff data are typically classified using the Harmonized System, whereas household survey classifications have historically been somewhat ad hoc. To render them compatible and comparable across countries, we take two steps. First, we aggregate goods in the household surveys to common 4- and 2-digit categories using separate expenditure, autoconsumption and income templates. In the second step, we aggregate tariff and trade data from COMTRADE to those categories. This section describes both steps in more detail.

2.1 Harmonizing household surveys

2.1.1 Expenditure, Income, and Autoconsumption Templates

To render the information derived from household surveys comparable across countries and compatible with trade data, we use and improve upon the templates and concordances developed by Nicita, Olarreaga and Porto (2014). We aggregate goods in the household surveys to 2-digit and 4-digit categories using separate expenditure, autoconsumption and income templates, which are shown in Figures 1, 2 and 3. We cover spending on, income derived from, and autoconsumption of 53 4-digit agricultural and food items. These include Staple Agriculture, such as corn and rice, and Non-Staple Agriculture, such as oils, cotton and tobacco. We also categorize spending on five classes of manufacturing items. In addition, we keep track of spending on five (non-tradeable) services and on four other expenditures. The fact that we have much more granular data on agricultural products than on manufacturing services is a reflection of the structure of the household surveys we are standardizing, which typically lack detailed disaggregated information on what industries workers are employed in, yet do typically contain detailed information on what crops are consumed and grown. Note that not all categories are populated in all surveys, which reflects both survey design and local consumption patterns (e.g., pork not being consumed very intensively in the majority of predominantly muslim countries, or certain food products, such as pineapple, not being locally produced and consumed on a sufficiently large scale to merit being included in a households survey).

On the income side we keep track of income derived of the sales of the same 53 food items we cover on the expenditure side. In addition, whenever the survey design allows it, we also split wage income by sector, defined roughly at the 1 digit level, and keep track of non-farm household enterprise sales across 10 sectors, as well as various types of transfers.

We also keep track of production for home consumption using the autoconsumption template, which is shown in Figure 3 and contains 53 agricultural products and a select few categories for other goods.

2.1.2 Matching household survey data to common templates

Classifying the different goods into common categories is typically straightforward, but we had to confront a number of issues whose resolution is important for accurate interpretation of the results;

Competing classifications: Some products do not perfectly match the categories in the templates. In these instances, we opted to consistently categorize the good into one category selected by consensus among the team harmonizing the surveys. For example, “biscuits” and “sandwiches”, are included in category 1114 (Other cereals), “breakfast/dinner/lunch at a restaurant” are included in category 1192. Any “jams” are included in category 1281 (sugar – any kind) as are “marmelades”, “jellies”, and “honey”. “Sausage” is classified as 1172 (pork) and “tomato paste” is classified as 1141 (tomatoes).

In some instances, the survey categories are more aggregate than the categories in the template. In these cases we equally divide the expenditure(/income) derived from this category into subcategories that comprise the more aggregate category/categories. For example, some surveys contain the category “Fruits” but no questions on specific fruits. In this case income derived from – or expenditure on – fruits would be divided among the 5 subproducts that collectively make up the 3-digit category “113 fruits”; e.g. one fifth of the expenditure allotted to this category would be assigned to “1131 Bananas”, another fifth to “1132 Grapes”, another fifth to “1132 Citrus”, another fifth to “1134 Apples”, and the final fifth to “1135 Other fruits”. As another example, if a survey asks about expenditure on “alcohol and tobacco” we would divide this expenditure evenly between alcohol, and its subcategories (e.g. codes “1211 Wine”, “1222 Beer”, and “1213 other alcohol”), and tobacco (e.g. “1221 Cigarettes” and “1222 Other tobacco”).

Choosing among different reference periods: On occasion, spending and income would be reported using different reference periods (e.g. “please state your expenditure on item X over the past 7 days/month/12 months”). In these cases we typically opt to use the shortest reference period for goods that are frequently consumed and not subject to seasonality, since shorter reference periods are less susceptible to recall bias. When goods are subject to significant seasonality or only purchased very infrequently we use the longer reference period.

Missing price data: In rare instances, the value of expenditure, income and autoconsumption is not directly asked, but must instead be inferred from the quantity consumed and price data. Whenever price data is missing, we use median prices of the same good within the within the same enumeration area as a proxy instead.

Measurement error: to minimize the role of measurement error we drop household in the top and bottom 0.5% of the expenditure distribution prior to aggregating the data.

Household size: We do not include income, expenditure or auto-consumption data for non-family members listed within a household. When constructing measures of expenditure and income per capita we do not use adult equivalent scales; we simply divided total household expenditure, income, or autoconsumption by the number of household members.

Consumption aggregates and treatment of specific products and categories. To interpret out consumption aggregates it is important to consider how we have dealt with specific income and expenditure categories:

- **Taxes and spending on material inputs:** We do not include in our data on tax payments and material inputs. Thus, when both gross and net income/wages are available, we use gross income. This is because not every survey asks for both net and gross income and gross income tends to be more regularly reported. We also do not include in our consumption aggregates measures of spending on inputs wherever we can identify them as such.
- **Rent:** Our expenditure aggregates do not include spending on rent and our autoconsumption measures likewise do not impute the consumption value of living in one's own house.
- **Health expenditure:** all health expenditures are included in our measure.
- **Durables:** we consider spending on durables and do not calculate their rental value.
- **(Dis)saving and inventory accumulation:** we do not keep track of saving, dissaving, or inventory accumulation and only consider good consumed when calculating total household expenditure.

It is important to note that our consumption aggregates differ from those of PovcalNet. HIT consumption aggregates may differ from those in PovcalNet, the World Bank Group's official poverty data, which can be found in PovcalNet, because the methodology used to calculate aggregate consumption differs from that of PovcalNet. To give a few examples, the HIT consumption aggregate includes expenditures on durable goods, while PovcalNet aggregates typically aim to capture the rental value of durables. As another example, the HIT data includes all health expenditures, whereas health expenditures are not uniformly treated in PovcalNet. Note also that we are scaling up average expenditure per capita to match up national accounts estimates. Specifically, we set mean expenditure per capita equal to GDP per capita in constant 2010 US dollars.

In order to facilitate cross-country comparisons, we converted incomes to their constant 2010 USD equivalent by setting the survey mean of real expenditure equal to the 2010 GDP per capita from the World Development Indicators. It should be noted that this is only an approximation to more proper international comparisons (see e.g. Deaton and Dupriez, 2011).

2.2 ConCORDING tariff data with household survey data

The next steps in the analysis is to convert tariffs at the HS4 level which we obtain from UNCTAD (TRAINS) to the standardized product classifications from the household surveys. Each group i from the household surveys contains many finer product groups from the HS classification.

To arrive at a product level average tariff, τ_i , we computed weighted average tariff rates for each of the groups in the survey classification as follows:

$$\tau_i = \sum_{c,n \in i} \tau_{c,n} \frac{m_{c,n}}{\sum_{c,n \in i} m_{c,n}}$$

where n is an HS-category that belongs to survey-category i and $m_{c,n}$ are imports of good n from country c . To calculate (1), we use tariffs from 2012-2014. These concordances can be found in the Concordance.xls spreadsheet.

To enable readers to update the tariff data we have included the relevant do-file and a set of do-files that creates the tariffs we used for our analysis based on 2012-2014 data.

4 Description of do-files

A set of 6 do-files is used to weight and convert the tariffs at the HS4 level to the standardized product classification from the household surveys. The do-file names and a brief description of the tasks they perform are listed below.

- **master_tariffs.do**: this is the main do-file, it carries out the task of weighting the tariffs and recoding the data to make it compatible with the household surveys. The following five auxiliary do-files are called by this do-file.
- **recode_HS4_aginc, recode_HS4_aut, recode_HS4_exp, recode_HS4_g2, recode_HS4_winc**: these auxiliary do-files perform the specific task of recoding the HS4 product codes. These files are not meant to be run separately, they are executed inside the program **master_tariffs.do**, which repeatedly calls these files.

5 List of variables

All tariff data come from UNCTAD and were downloaded using WITS. Information on GDP and population comes from the World Bank's World Development Indicators. All other data come from household surveys (see appendix A for information on how to request access to the underlying micro data).

Variable	Label
Ciso	CISO country code
Country	Country
rank100	Percentile in the per capita expenditure distribution (in percentiles)
Gdp	GDP - current USD
Gdppc	GDP per capita - current USD
gdppc_cd	GDP per capita - constant (2010) USD
Pop	population
yreal0	Real hh income per capita (proxied by expenditure) in constant 2010 USD
share_inc_20	Share of income derived from Wages - agriculture, forestry and fishing (20)
share_inc_21	Share of income derived from Wages - mining, oil and gas extraction
share_inc_22	Share of income derived from Wages - manufacturing
share_inc_23	Share of income derived from Wages - construction
share_inc_24	Share of income derived from Wages - transportation, communications, electricity, gas

Variable	Label
share_inc_25	Share of income derived from Wages - wholesale and retail trade
share_inc_26	Share of income derived from Wages - finance, insurance and real estate
share_inc_27	Share of income derived from Wages - services: hotels, restaurants, entertainmen
share_inc_28	Share of income derived from Wages - services: education, health
share_inc_29	Share of income derived from Wages - public administration
share_inc_30	Share of income derived from Sales - agriculture (nec)
share_inc_31	Share of income derived from Sales - mining, oil and gas extraction
share_inc_32	Share of income derived from Sales - manufacturing
share_inc_33	Share of income derived from Sales - construction
share_inc_34	Share of income derived from Sales - transportation, communications, electric
share_inc_35	Share of income derived from Sales - wholesale and retail trade
share_inc_36	Share of income derived from Sales - finance, insurance and real estate
share_inc_37	Share of income derived from Sales - services: hotels, restaurants, entertainment
share_inc_38	Share of income derived from Sales - services: education, health
share_inc_39	Share of income derived from Sales - public administration
share_inc_41	Share of income derived from Transfers - remittances/transfers received (friend)
share_inc_42	Share of income derived from Transfers - profits of investment (rent, interests)
share_inc_43	Share of income derived from Transfers - government transfers
share_inc_44	Share of income derived from Transfers - nongovernment transfer Donor, International Organization, NGO)
share_inc_45	Share of income derived from Transfers - other
share_inc_1111	Share of income derived from Sales - corn
share_inc_1112	Share of income derived from Sales - wheat
share_inc_1113	Share of income derived from Sales - rice
share_inc_1114	Share of income derived from Sales - other cereals
share_inc_1121	Share of income derived from Sales - beans
share_inc_1122	Share of income derived from Sales - other
share_inc_1131	Share of income derived from Sales - banana
share_inc_1132	Share of income derived from Sales - grapes
share_inc_1133	Share of income derived from Sales - citrus
share_inc_1134	Share of income derived from Sales - apples
share_inc_1135	Share of income derived from Sales - other fruit
share_inc_1141	Share of income derived from Sales - tomato
share_inc_1142	Share of income derived from Sales - potato
share_inc_1143	Share of income derived from Sales - greens
share_inc_1144	Share of income derived from Sales - other vegetables
share_inc_1151	Share of income derived from Sales - vegetable oil
share_inc_1152	Share of income derived from Sales - animal fats
share_inc_1153	Share of income derived from Sales - other oils/fats
share_inc_1161	Share of income derived from Sales - fish
share_inc_1162	Share of income derived from Sales - shrimp
share_inc_1163	Share of income derived from Sales - other crustacean

Variable	Label
share_inc_1171	Share of income derived from Sales - pork
share_inc_1172	Share of income derived from Sales - beef
share_inc_1173	Share of income derived from Sales - poultry
share_inc_1174	Share of income derived from Sales - other meat/animals
share_inc_1181	Share of income derived from Sales - milk
share_inc_1182	Share of income derived from Sales - eggs
share_inc_1183	Share of income derived from Sales - cheese
share_inc_1184	Share of income derived from Sales - other dairy
share_inc_1191	Share of income derived from Sales - other staple food
share_inc_1192	Share of income derived from Sales - other processed food
share_inc_1211	Share of income derived from Sales - wine
share_inc_1212	Share of income derived from Sales - beer
share_inc_1213	Share of income derived from Sales - other alcohol
share_inc_1221	Share of income derived from Sales - cigarettes
share_inc_1222	Share of income derived from Sales - other tobacco
share_inc_1231	Share of income derived from Sales - soya
share_inc_1232	Share of income derived from Sales - other oil seeds
share_inc_1241	Share of income derived from Sales - cloves
share_inc_1242	Share of income derived from Sales - pepper
share_inc_1243	Share of income derived from Sales - vanilla
share_inc_1244	Share of income derived from Sales - saffron
share_inc_1245	Share of income derived from Sales - qat (chat)
share_inc_1246	Share of income derived from Sales - other spices
share_inc_1251	Share of income derived from Sales - coffee
share_inc_1252	Share of income derived from Sales - tea
share_inc_1253	Share of income derived from Sales - cocoa
share_inc_1261	Share of income derived from Sales - cashew
share_inc_1262	Share of income derived from Sales - coconut
share_inc_1263	Share of income derived from Sales - other nuts
share_inc_1271	Share of income derived from Sales - cotton
share_inc_1281	Share of income derived from Sales - sugar (any kind) (1281)
share_inc_1282	Share of income derived from Sales - other non-staple (1282)
share_exp_21	Share of expenditure spent on: Manufacturing - energy
share_exp_22	Share of expenditure spent on: Manufacturing - textiles/apparel
share_exp_23	Share of expenditure spent on: Manufacturing - electric/electronics
share_exp_24	Share of expenditure spent on: Manufacturing - household items/furniture
share_exp_25	Share of expenditure spent on: Manufacturing - other physical goods
share_exp_31	Share of expenditure spent on: Services - transportation
share_exp_32	Share of expenditure spent on: Services - health
share_exp_33	Share of expenditure spent on: Services - education
share_exp_34	Share of expenditure spent on: Services - communication
share_exp_35	Share of expenditure spent on: Services - other services

Variable	Label
share_exp_41	Share of expenditure spent on: Other Expenditure - remittances/transfers given
share_exp_42	Share of expenditure spent on: Other Expenditure - investment of any sort
share_exp_43	Share of expenditure spent on: Other Expenditure - festivities
share_exp_44	Share of expenditure spent on: Other Expenditure - other disbursement
share_exp_1111	Share of expenditure spent on: Agriculture - corn
share_exp_1112	Share of expenditure spent on: Agriculture - wheat
share_exp_1113	Share of expenditure spent on: Agriculture - rice
share_exp_1114	Share of expenditure spent on: Agriculture - other cereals
share_exp_1121	Share of expenditure spent on: Agriculture - beans
share_exp_1122	Share of expenditure spent on: Agriculture - other
share_exp_1131	Share of expenditure spent on: Agriculture - banana
share_exp_1132	Share of expenditure spent on: Agriculture - grapes
share_exp_1133	Share of expenditure spent on: Agriculture - citrus
share_exp_1134	Share of expenditure spent on: Agriculture - apples
share_exp_1135	Share of expenditure spent on: Agriculture - other fruit
share_exp_1141	Share of expenditure spent on: Agriculture - tomato
share_exp_1142	Share of expenditure spent on: Agriculture - potato
share_exp_1143	Share of expenditure spent on: Agriculture - greens
share_exp_1144	Share of expenditure spent on: Agriculture - other vegetables
share_exp_1151	Share of expenditure spent on: Agriculture - vegetable oil
share_exp_1152	Share of expenditure spent on: Agriculture - animal fats
share_exp_1153	Share of expenditure spent on: Agriculture - other oils/fats
share_exp_1161	Share of expenditure spent on: Agriculture - fish
share_exp_1162	Share of expenditure spent on: Agriculture - shrimp
share_exp_1163	Share of expenditure spent on: Agriculture - other crustacean
share_exp_1171	Share of expenditure spent on: Agriculture - pork
share_exp_1172	Share of expenditure spent on: Agriculture - beef
share_exp_1173	Share of expenditure spent on: Agriculture - poultry
share_exp_1174	Share of expenditure spent on: Agriculture - other meat/animals
share_exp_1181	Share of expenditure spent on: Agriculture - milk
share_exp_1182	Share of expenditure spent on: Agriculture - eggs
share_exp_1183	Share of expenditure spent on: Agriculture - cheese
share_exp_1184	Share of expenditure spent on: Agriculture - other dairy
share_exp_1191	Share of expenditure spent on: Agriculture - other staple food
share_exp_1192	Share of expenditure spent on: Agriculture - other processed food
share_exp_1211	Share of expenditure spent on: Agriculture - wine
share_exp_1212	Share of expenditure spent on: Agriculture - beer
share_exp_1213	Share of expenditure spent on: Agriculture - other alcohol
share_exp_1221	Share of expenditure spent on: Agriculture - cigarettes
share_exp_1222	Share of expenditure spent on: Agriculture - other tobacco
share_exp_1231	Share of expenditure spent on: Agriculture - soya
share_exp_1232	Share of expenditure spent on: Agriculture - other oil seeds

Variable	Label
share_exp_1241	Share of expenditure spent on: Agriculture - cloves
share_exp_1242	Share of expenditure spent on: Agriculture - pepper
share_exp_1243	Share of expenditure spent on: Agriculture - vanilla
share_exp_1244	Share of expenditure spent on: Agriculture - saffron
share_exp_1245	Share of expenditure spent on: Agriculture - qat (chat)
share_exp_1246	Share of expenditure spent on: Agriculture - other spices
share_exp_1251	Share of expenditure spent on: Agriculture - coffee
share_exp_1252	Share of expenditure spent on: Agriculture - tea
share_exp_1253	Share of expenditure spent on: Agriculture - cocoa
share_exp_1261	Share of expenditure spent on: Agriculture - cashew
share_exp_1262	Share of expenditure spent on: Agriculture - coconut
share_exp_1263	Share of expenditure spent on: Agriculture - other nuts
share_exp_1271	Share of expenditure spent on: Agriculture - cotton
share_exp_1281	Share of expenditure spent on: Agriculture - sugar (any kind)
share_exp_1282	Share of expenditure spent on: Agriculture - other non-staple products
wa_tariff_inc_20	Tariff (inc) - Agriculture, Forestry, And Fishing - Wages
wa_tariff_inc_21	Tariff (inc) - Mining, Oil And Gas Extraction - Wages
wa_tariff_inc_22	Tariff (inc) - Manufacturing
wa_tariff_inc_23	Tariff (inc) - Construction
wa_tariff_inc_24	Tariff (inc) - Transportation, Communications, Electric, Gas, And Sanitary Services
wa_tariff_inc_25	Tariff (inc) - Wholesale and Retail Trade - Wages
wa_tariff_inc_26	Tariff (inc) - Finance, Insurance, And Real Estate - Wages
wa_tariff_inc_27	Tariff (inc) - Services1 - Wages
wa_tariff_inc_28	Tariff (inc) - Services2 - Wages
wa_tariff_inc_29	Tariff (inc) - Public Administration - Wages
wa_tariff_inc_30	Tariff (inc) - Agriculture, Forestry, And Fishing - Sales
wa_tariff_inc_31	Tariff (inc) - Mining, Oil And Gas Extraction - Sales
wa_tariff_inc_32	Tariff (inc) - Manufacturing - Sales
wa_tariff_inc_33	Tariff (inc) - Construction - Sales
wa_tariff_inc_34	Tariff (inc) - Transportation, Communications, Electric, Gas, and Sanitary Services
wa_tariff_inc_35	Tariff (inc) - Wholesale and Retail Trade - Sales
wa_tariff_inc_36	Tariff (inc) - Finance, Insurance, And Real Estate - Sales
wa_tariff_inc_37	Tariff (inc) - Entertainment services (restaurants, entertainment, hotels)
wa_tariff_inc_38	Tariff (inc) - Professional services (education, health, other professional occupations)
wa_tariff_inc_39	Tariff (inc) - Public Administration - Sales
wa_tariff_inc_41	Tariff (inc) - Transfers -Remittances/ Transfers received (friend, relative)
wa_tariff_inc_42	Tariff (inc) - Profits of investment (rent, interests) - Sales
wa_tariff_inc_43	Tariff (inc) - Government Transfers - Sales
wa_tariff_inc_44	Tariff (inc) - Non Government transfer (Donor, International Organization, NGO)
wa_tariff_inc_45	Tariff (inc) - Other
wa_tariff_inc_1111	Tariff (inc) - Corn
wa_tariff_inc_1112	Tariff (inc) - Wheat

Variable	Label
wa_tariff_inc_1113	Tariff (inc) - Rice
wa_tariff_inc_1114	Tariff (inc) - Other Cereals
wa_tariff_inc_1121	Tariff (inc) - Beans
wa_tariff_inc_1122	Tariff (inc) - Other legumens
wa_tariff_inc_1131	Tariff (inc) - Banana
wa_tariff_inc_1132	Tariff (inc) - Grapes
wa_tariff_inc_1133	Tariff (inc) - Citrus
wa_tariff_inc_1134	Tariff (inc) - Apples
wa_tariff_inc_1135	Tariff (inc) - Other fruit
wa_tariff_inc_1141	Tariff (inc) - Tomato
wa_tariff_inc_1142	Tariff (inc) - Potato
wa_tariff_inc_1143	Tariff (inc) - Greens
wa_tariff_inc_1144	Tariff (inc) - Other vegetables
wa_tariff_inc_1151	Tariff (inc) - Vegetable oil
wa_tariff_inc_1152	Tariff (inc) - Animal fats
wa_tariff_inc_1153	Tariff (inc) - Other oils/fats
wa_tariff_inc_1161	Tariff (inc) - Fish
wa_tariff_inc_1162	Tariff (inc) - Shrimp
wa_tariff_inc_1163	Tariff (inc) - Other crustacean
wa_tariff_inc_1171	Tariff (inc) - Pork
wa_tariff_inc_1172	Tariff (inc) - Beef
wa_tariff_inc_1173	Tariff (inc) - Poultry
wa_tariff_inc_1174	Tariff (inc) - Other meat/animals
wa_tariff_inc_1181	Tariff (inc) - Milk
wa_tariff_inc_1182	Tariff (inc) - Eggs
wa_tariff_inc_1183	Tariff (inc) - Cheese
wa_tariff_inc_1184	Tariff (inc) - Other diary
wa_tariff_inc_1191	Tariff (inc) - Other staple
wa_tariff_inc_1192	Tariff (inc) - Other processed food
wa_tariff_inc_1211	Tariff (inc) - Wine
wa_tariff_inc_1212	Tariff (inc) - Beer
wa_tariff_inc_1213	Tariff (inc) - Other alcohol
wa_tariff_inc_1221	Tariff (inc) - Cigarettes
wa_tariff_inc_1222	Tariff (inc) - Other tobacco
wa_tariff_inc_1231	Tariff (inc) - Soya
wa_tariff_inc_1232	Tariff (inc) - Other oil seeds
wa_tariff_inc_1241	Tariff (inc) - Cloves
wa_tariff_inc_1242	Tariff (inc) - Pepper
wa_tariff_inc_1243	Tariff (inc) - Vanilla
wa_tariff_inc_1244	Tariff (inc) - Saffron
wa_tariff_inc_1245	Tariff (inc) - qat
wa_tariff_inc_1246	Tariff (inc) - Other spices

Variable	Label
wa_tariff_inc_1251	Tariff (inc) - Coffee
wa_tariff_inc_1252	Tariff (inc) - Tea
wa_tariff_inc_1253	Tariff (inc) - Cocoa
wa_tariff_inc_1261	Tariff (inc) - Nuts
wa_tariff_inc_1262	Tariff (inc) - Cashew
wa_tariff_inc_1263	Tariff (inc) - Other nuts
wa_tariff_inc_1271	Tariff (inc) - Cotton
wa_tariff_inc_1281	Tariff (inc) - Sugar
wa_tariff_inc_1282	Tariff (inc) - Other non-staple
wa_tariff_exp_21	Tariff (exp) - Energy
wa_tariff_exp_22	Tariff (exp) - Textiles/Apparel
wa_tariff_exp_23	Tariff (exp) - Electric / Electronics
wa_tariff_exp_24	Tariff (exp) - Household items / Furniture
wa_tariff_exp_25	Tariff (exp) - Other Physical goods
wa_tariff_exp_1111	Tariff (exp) - Corn
wa_tariff_exp_1112	Tariff (exp) - Wheat
wa_tariff_exp_1113	Tariff (exp) - Rice
wa_tariff_exp_1114	Tariff (exp) - Other Cereals
wa_tariff_exp_1121	Tariff (exp) - Beans
wa_tariff_exp_1122	Tariff (exp) - Other legumens
wa_tariff_exp_1131	Tariff (exp) - Banana
wa_tariff_exp_1132	Tariff (exp) - Grapes
wa_tariff_exp_1133	Tariff (exp) - Citrus
wa_tariff_exp_1134	Tariff (exp) - Apples
wa_tariff_exp_1135	Tariff (exp) - Other fruit
wa_tariff_exp_1141	Tariff (exp) - Tomato
wa_tariff_exp_1142	Tariff (exp) - Potato
wa_tariff_exp_1143	Tariff (exp) - Greens
wa_tariff_exp_1144	Tariff (exp) - Other vegetables
wa_tariff_exp_1151	Tariff (exp) - Vegetable oil
wa_tariff_exp_1152	Tariff (exp) - Animal fats
wa_tariff_exp_1153	Tariff (exp) - Other oils/fats
wa_tariff_exp_1161	Tariff (exp) - Fish
wa_tariff_exp_1162	Tariff (exp) - Shrimp
wa_tariff_exp_1163	Tariff (exp) - Other crustacean
wa_tariff_exp_1171	Tariff (exp) - Pork
wa_tariff_exp_1172	Tariff (exp) - Beef
wa_tariff_exp_1173	Tariff (exp) - Poultry
wa_tariff_exp_1174	Tariff (exp) - Other meat/animals
wa_tariff_exp_1181	Tariff (exp) - Milk
wa_tariff_exp_1182	Tariff (exp) - Eggs
wa_tariff_exp_1183	Tariff (exp) - Cheese

Variable	Label
wa_tariff_exp_1184	Tariff (exp) - Other diary
wa_tariff_exp_1191	Tariff (exp) - Other staple
wa_tariff_exp_1192	Tariff (exp) - Other processed food
wa_tariff_exp_1211	Tariff (exp) - Wine
wa_tariff_exp_1212	Tariff (exp) - Beer
wa_tariff_exp_1213	Tariff (exp) - Other alcohol
wa_tariff_exp_1221	Tariff (exp) - Cigarettes
wa_tariff_exp_1222	Tariff (exp) - Other tobacco
wa_tariff_exp_1231	Tariff (exp) - Soya
wa_tariff_exp_1232	Tariff (exp) - Other oil seeds
wa_tariff_exp_1241	Tariff (exp) - Cloves
wa_tariff_exp_1242	Tariff (exp) - Pepper
wa_tariff_exp_1243	Tariff (exp) - Vanilla
wa_tariff_exp_1244	Tariff (exp) - Saffron
wa_tariff_exp_1245	Tariff (exp) - qat
wa_tariff_exp_1246	Tariff (exp) - Other spices
wa_tariff_exp_1251	Tariff (exp) - Coffee
wa_tariff_exp_1252	Tariff (exp) - Tea
wa_tariff_exp_1253	Tariff (exp) - Cocoa
wa_tariff_exp_1261	Tariff (exp) - Nuts
wa_tariff_exp_1262	Tariff (exp) - Cashew
wa_tariff_exp_1263	Tariff (exp) - Other nuts
wa_tariff_exp_1271	Tariff (exp) - Cotton
wa_tariff_exp_1281	Tariff (exp) - Sugar
wa_tariff_exp_1282	Tariff (exp) - Other non-staple

6 References

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Figure 1: Expenditure Template

Expenditure								
1. Agriculture/Food								
11. Staple Food								
111. Cerals	112. Legumens	113. Fruits	114. Vegetables	115. Oils/Fats	116. Fish	117. Meat/Livestock	118. Dairy/Eggs	119. Other staple food
1111. Corn 1112. Wheat 1113. Rice 1114. Other Cereals	1121. Beans 1122. Other	1131. Banana 1132. Grapes 1133. Citrus 1134. Apples 1135. Other Fruits	1141. Tomato 1142. Potato 1143. Greens 1144. Other Vegetables	1151. Vegetable Oils 1152. Animal Fats 1153. Other oils/fats	1161. Fish 1162. Shrimp 1163. Other Crustacean	1171. Pork (Pig) 1172. Beef (Cattle) 1173. Poultry (Chicken) 1174. Other meat/animals	1181. Milk 1182. Eggs 1183. Cheese 1184. Other Dairy	1191. Other staple food 1192. Other processed food
12. Non Staple								
121. Alcohol	122. Tobacco	123. Oil seeds	124. Spices/herbs		125. Coffee/tea/cocoa	126. Nuts	127. Cotton	128. Other non-staple food
1211. Wine 1212. Beer 1213. Other alcohol	1221. Cigarettes 1222. Other tobacco	1231. Soya 1232. Other oil seeds	1241. Cloves 1242. Pepper 1243. Vanilla 1244. Saffron 1245. Qat (chat) 1246. Other spices		1251. Coffee 1252. Tea 1253. Cocoa	1261. Cashew 1262. Coconut 1263. Other nuts	127. Cotton	1281. Sugar (any kind) 1282. Other non-staple
2. Manufacturing/Household Items								
21. Energy 22. Textiles/Apparel 23. Electric/Electronics 24. Household items/Furniture 25. Other physical goods								
3. Services								
31. Transportation 32. Health 33. Education 34. Communication 35. Other Services								
4. Other Expenditures								
41. Remittances/transfers given 42. Investment of any sort 43. Festivities 44. Other Disbursement								

Figure 2: Income Template

Income								
1. Agriculture/Food								
11. Staple Food								
111. Cerals	112. Legumens	113. Fruits	114. Vegetables	115. Oils/Fats	116. Fish	117. Meat/Livestock	118. Dairy/Eggs	119. Other staple food
1111. Corn 1112. Wheat 1113. Rice 1114. Other Cereals	1121. Beans 1122. Other	1131. Banana 1132. Grapes 1133. Citrus 1134. Apples 1135. Other Fruits	1141. Tomato 1142. Potato 1143. Greens 1144. Other Vegetables	1151. Vegetable Oils 1152. Animal Fats 1153. Other oils/fats	1161. Fish 1162. Shrimp 1163. Other Crustacean	1171. Pork (Pig) 1172. Beef (Cattle) 1173. Poultry (Chicken) 1174. Other meat/animals	1181. Milk 1182. Eggs 1183. Cheese 1184. Other Dairy	1191. Other staple food 1192. Other processed food
12. Non Staple								
121. Alcohol	122. Tobacco	123. Oil seeds	124. Spices/herbs		125. Coffee/tea/cocoa	126. Nuts	127. Cotton	128. Other non-staple food
1211. Wine 1212. Beer 1213. Other alcohol	1221. Cigarettes 1222. Other tobacco	1231. Soya 1232. Other oil seeds	1241. Cloves 1242. Pepper 1243. Vanilla 1244. Saffron 1245. Qat (chat) 1246. Other spices		1251. Coffee 1252. Tea 1253. Cocoa	1261. Cashew 1262. Coconut 1263. Other nuts	127. Cotton	1281. Sugar (any kind) 1282. Other non-staple
2. Wages								
20. Agriculture, forestry, and fishing 21. Mining, oil, and gas extraction 22. Manufacturing 23. Construction 24. Transportation, communications, electric, gas, and sanitary services 25. Wholesale and retail trade 26. Finance, insurance, and real estate 27. Entertainment Services (Restaurant, entertainment, hotels, etc.) 28. Professional Services (Education, health, other professional occupations) 29. Public Administration								
3. Sales of Goods/Services								
31. Mining, oil, and gas extraction 32. Manufacturing 33. Construction 34. Transportation, communications, electric, gas, and sanitary services 35. Wholesale and retail trade 36. Finance, insurance, and real estate 37. Entertainment Services (Restaurant, entertainment, hotels, etc.) 38. Professional Services (Education, health, other professional occupations) 39. Public Administration								
4. Transfers								

- 41. Remittances/transfers received (friend, relative)
- 42. Profits of investment (rent, interests)
- 43. Government transfers
- 44. Non-governmental transfers
- 45. Other

Figure 3: Autoconsumption Template

Autoconsumption								
1. Agriculture/Food								
11. Staple Food								
111. Cerals	112. Legumens	113. Fruits	114. Vegetables	115. Oils/Fats	116. Fish	117. Meat/Livestock	118. Dairy/Eggs	119. Other staple food
1111. Corn 1112. Wheat 1113. Rice 1114. Other Cereals	1121. Beans 1122. Other	1131. Banana 1132. Grapes 1133. Citrus 1134. Apples 1135. Other Fruits	1141. Tomato 1142. Potato 1143. Greens 1144. Other Vegetables	1151. Vegetable Oils 1152. Animal Fats 1153. Other oils/fats	1161. Fish 1162. Shrimp 1163. Other Crustacean	1171. Pork (Pig) 1172. Beef (Cattle) 1173. Poultry (Chicken) 1174. Other meat/animals	1181. Milk 1182. Eggs 1183. Cheese 1184. Other Dairy	1191. Other staple food 1192. Other processed food
12. Non Staple								
121. Alcohol	122. Tobacco	123. Oil seeds	124. Spices/herbs		125. Coffee/tea/cocoa	126. Nuts	127. Cotton	128. Other non-staple food
1211. Wine 1212. Beer 1213. Other alcohol	1221. Cigarettes 1222. Other tobacco	1231. Soya 1232. Other oil seeds	1241. Cloves 1242. Pepper 1243. Vanilla 1244. Saffron 1245. Qat (chat) 1246. Other spices		1251. Coffee 1252. Tea 1253. Cocoa	1261. Cashew 1262. Coconut 1263. Other nuts	127. Cotton	1281. Sugar (any kind) 1282. Other non-staple
2. Other goods								
21. Energy (wood, coal) 22. Gathering (forest, mushrooms, berries, etc.) 23. Other goods collected for free 24. Other goods produced and consumed within the household								

Appendix A: List of household surveys

Many of the household surveys we are working with can be requested from the World Bank's microdatalib:

<https://microdata.worldbank.org/index.php/home>

Datasets can also be requested from

Country	Year	Survey	Publicly available	Contact information
Sub-Saharan Africa				
Benin	2003	Questionnaire Unifié sur les Indicateurs de Base du Bien-être 2003	No	insae@insae-bj.org
Burkina Faso	2003	Enquête sur les Conditions de Vie des Ménages 2003	No	insdbf@gmail.com
Burundi	1998	Enquête Prioritaire 1998, Etude Nationale sur les Conditions de Vie des Populations	No	+257 22 22 67 29
Cameroon	2001	Deuxième Enquête Camerounaise Auprès des Ménages 2001-2002	RR	http://slmp-550-104.slc.westdc.net/~stat54/nada/index.php/catalog/20/variable/V94
Central African Republic	2008	Enquête Centrafricaine pour le Suivi-Evaluation du Bien-être 2008	No	dsees1_rca@yahoo.fr
Comoros	2004	Enquête Intégrale auprès des Ménages 2004	No	http://www.inseed.km/index.php/publications/bases-de-donnees
Cote d'Ivoire	2008	Enquête sur le Niveau de Vie des Ménages 2008	No	statistica@aviso.ci

Country	Year	Survey	Publicly available	Contact information
Ethiopia	2000	Household Income, Consumption and Expenditure Survey 1999-2000	No	data@csa.gov.et
Gambia	1998	Household Poverty Survey 1998	No	gamcens@qanet.gm
Ghana	2005	Living Standards Survey V 2005-2006	RR	http://www2.statsghana.gov.gh/nada/index.php/catalog/central
Guinea	2012	Enquête Légère pour l'Evaluation de la Pauvreté 2012	No	info@insguinee.org
Guinea Bissau	2010	Inquerito Ligeiro para a Avaliação da Pobreza 2010	RR	http://www.stat-guinebissau.com/nada41/index.php/catalog/7
Kenya	2005	Integrated Household Budget Survey 2005-2006	RR	http://statistics.knbs.or.ke/nada/index.php/catalog/8
Liberia	2014	Household Income and Expenditure Survey 2014-2015	No	https://www.lisgis.net/
Madagascar	2005	Permanent Survey of Households 2005	No	instatdg@yahoo.fr
Malawi	2004	Second Integrated Household Survey 2004-2005	No	enquiries@statistics.gov.mw
Mali	2006	Enquête Légère Intégrée auprès des Ménages 2006	No	instatmali2014@yahoo.fr
Mauritania	2004	Enquête Permanente sur les Conditions de Vie des Ménages 2004	No	http://www.ons.mr/
Mozambique	2009	Inquérito sobre Orçamento Familiar 2008-2009	No	info@ine.gov.mz

Country	Year	Survey	Publicly available	Contact information
Niger	2005	Enquête Nationale sur les Conditions de Vie des Ménages 2005	No	http://www.stat-niger.org/nada/index.php/catalog/3/get_microdata
Nigeria	2004	Living Standards Survey 2003/2004	RR	http://www.nigerianstat.gov.ng/nada/index.php/catalog/28
Rwanda	1998	Integrated Household Living Conditions Survey	No	https://microdata.statistics.gov.rw
Tanzania	2008	Household Budget Survey	No	sg@nbs.go.tz
Togo	2011	Questionnaire des Indicateurs de Base du Bien-être 2011	Yes	http://www.stat-togo.org/nada/index.php/catalog/20/get_microdata
Sierra Leone	2011	Integrated Household Survey 2011	No	statistics@statistics.sl
South Africa	2000	General Household Survey 2010	No	distribution@statssa.gov.za
Uganda	2005	National Household Survey 2005-2006	No	ubos@ubos.org
Zambia	2004	Living Conditions Monitoring Survey IV 2004	No	info@zamstats.gov.zm
East Asia and the Pacific				
Cambodia	2013	Socio-Economic Survey 2013	RR	http://nada-nis.gov.kh/index.php/catalog/18
Indonesia	2007	Indonesian Family Life Survey 2007	RR	https://www.rand.org/well-being/social-and-behavioral-policy/data/FLS/IFLS/access.html
Mongolia	2011	Household Socio Economic Survey 2011	RR	http://web.nso.mn/nadamn/index.php/catalog/106
Papua New Guinea	2009	Household Income and Expenditure Survey 2009-2010	No	info@nso.gov.pg

Country	Year	Survey	Publicly available	Contact information
Vietnam	2012	Household Living Standard Survey 2012	No	xahoimoitruong@gso.gov.vn South East Asia
Bangladesh	2010	Household Income and Expenditure Survey 2010	No	dg@bbs.gov.bd
Bhutan	2012	Living Standards Survey 2012	No	psangay@gmail.com
Nepal	2010	Living Standards Survey 2010/11	RR	http://cbs.gov.np/nada/index.php/catalog/37
Pakistan	2010	Social and Living Standards Measurement Survey 2010/11	Yes	http://www.pbs.gov.pk/content/microdata
Sri Lanka	2013	Household Income and Expenditure Survey 2012/13	RR	http://nada.statistics.gov.lk/index.php/catalog/1408 Middle East and North Africa
Egypt	2009	Household Income, Expenditure and Consumption Survey 2008/2009	RR	http://www.erfdataportal.com/index.php/catalog/41
Iraq	2012	Household Socio Economic Survey 2012	No	http://www.erfdataportal.com/index.php/catalog/108
Jordan	2010	Household Expenditure and Income Survey 2010	No	http://www.erfdataportal.com/index.php/catalog/5
Yemen	2005	Household Budget Survey 2005-2006	No	cso@cso-yemen.org Europe and Central Asia
Armenia	2014	Integrated Living Conditions Survey 2014	No	info@mlsa.am

Country	Year	Survey	Publicly available	Contact information
Azerbaijan	2005	Household Budget Survey	No	sc@azstat.org
Georgia	2014	Household Integrated Survey 2014	No	info@geostat.ge
Kyrgyz Republic	2012	Integrated Sample Household Budget and Labor Survey	No	nsc_mail@stat.kg
Moldova	2014	Household Budget Survey 2014	No	moldstat@statistica.gov.md
Tajikistan	2009	Tajikistan Panel Survey 2009	No	stat@tojikiston.com
Ukraine	2012	Sampling Survey of the Conditions of Life of Ukraine's Households	No	http://ukrstat.org/en
Uzbekistan	2003	Household Budget Survey	No	info@stat.uz
Latin America and the Caribbean				
Bolivia	2008	Encuesta de Hogares 2008	Yes	https://www.ine.gob.bo/index.php/banco/base-de-datos-sociales
Ecuador	2014	Encuesta de Condiciones de Vida 2013-2014	Yes	http://www.ecuadorencifras.gob.ec//documentos/web-inec/ECV/ECV_2015/
Guatemala	2014	Encuesta Nacional de Condiciones de Vida 2014	Yes	https://www.ine.gob.gt/index.php/encuestas-de-hogares-y-personas/condiciones-de-vida
Nicaragua	2009	Encuesta Nacional de Hogares sobre Medición de Niveles de Vida 2009	No	webmaster@inide.gob.ni

RR=Registration required