

Reproducibility package for “The 2022 global food price shock in Chile and Colombia” by Erik von Uexkull

Computation:

The package includes 4 do-files:

1. main.do:

Update the folder path to your working directory to run all the do-files.

2. Data preparation:

- a. read in Chile rawdata.do
- b. read in Colombia rawdata.do

These do-files read in and prepare transaction level customs data from Chile and Colombia from the original monthly txt files while deleting all transactions that do not refer to maize or wheat based on the customs codes. The results are saved as “Chile data rev.dta” and “Colombia data.dta”. Depending on computation capacity, this can be a lengthy process of 2-3 hours since the files are large. This paper uses only data for 2021 and 2022, but since the datasets were also used for other purposes the raw data is read in from 2018 to mid-2023 (and 2015 to 2023 for Colombia). The do file for Chile pulls in supplementary information on the codes used for countries, products, and ports of entry (see sources below). The do file for Colombia also does for the products' codes and their correspondence to HS classification.

3. Data analysis for CHL COL price note rev.do:

This do-file reads in the data prepared and performs various analytical processes.

To run all the do-files, download the dataset “Chile transaction customs data” to the Chile_rawdata folder, and the dataset “Colombia customs supplementary data” (Correspondence to HS classification) in the Colombia_rawdata folder. Refer to the Data sources tables for more details. The data preparation do-files produces two intermediate data files for Chile and Colombia that are not included in the reproducibility package. The intermediate file for Chile can only be created once access to “Chile transactions customs data” is obtained.

The results are output directly into the Excel file “All results CHL COL note.xlsx” to the tabs labeled ‘raw ...’. The original result produced by the author is stored in the folder “Result_original” and is called “All results CHL COL note_original.xlsx”. Most graphs in the Excel file will update automatically after copying the results exported from code to the original results Excel file, but some graphs have an associated pivot table that requires updating the pivot table and copy-pasting the results into the tab with the final graph (see table below for graph-by-graph information). See below for the detailed sources.

Data sources:

The highlighted datasets are **included** in the reproducibility package.

Dataset	Location	Source
Chile transaction customs data	Monthly files saved in subfolder .../Chile_rawdata/yyyy-m.txt 1/2018 – 9/2023	https://datos.gob.cl/organization/servicio nacional de aduanas accessed 9/2023 download compressed packages by month, uncompress and rename in the format yyyy_m.txt for the do file to run
Chile customs supplementary data	/Chile_rawdata/countries.dta /Chile_rawdata/HS8_desc_wheat.dta /Chile_rawdata/ports.xlsx	Countries (click on 'países'): https://www.aduana.cl/compendio-de-normas-anexo-51/aduana/2009-11-19/163937.html#vtxt cuerpo T0 Product codes (download section II): https://www.aduana.cl/arancel-aduanero-vigente/aduana/2016-12-30/090118.html Ports of entry (click on 'puertos'): https://www.aduana.cl/compendio-de-normas-anexo-51/aduana/2009-11-19/163937.html#vtxt cuerpo T0 accessed 9/2023
Colombia transaction customs data	Monthly files saved in subfolder .../Colombia_rawdata/ mm_Importaciones_yy.txt	https://www.dian.gov.co/dian/cifras/Paginas/Bases-Estadisticas-de-Comercio-Exterior-Importaciones-y-Exportaciones.aspx Bases Estadísticas de Importaciones download compressed packages by month, uncompress and rename in the format mm_Importaciones_yyyy.xlsx for the do file to run accessed 1/2024
Colombia customs supplementary data	/Colombia_rawdata/ HS-SITC-BEC_Correlations_2022_bis.xlsx /Colombia_rawdata/ anex-DIRPEN-TOTPARTv75-jun2023.xlsx	Product codes: https://www.dane.gov.co/index.php/sistema-estadistico-nacional-sen/normas-y-estandares/nomenclaturas-y-clasificaciones/tablas-correlativas Correlativas comercio exterior: Total de partidas arancelarias por series históricas 1993 – 2023 TOTPART Versión 75 Correspondence to HS classification: https://unstats.un.org/unsd/classifications/Econ Complete correlations among HS, SITC and BEC (2022) accessed 12/2023

Monthly USD exchange rates for CHL and COL	erates.dta All results CHL COL note.xlsx, tab 'erates'	https://stats.oecd.org/index.aspx?queryid=169# accessed 2/2024
Global prices for wheat and maize	globalprices.dta	https://www.worldbank.org/en/research/commodity-markets click on 'monthly prices'. For globalprices.dta, data for prices of wheat and maize was exported into Stata in long format by month and year from 1960 to 2023. accessed 2/2024
Global crude oil price	All results CHL COL note.xlsx, tab 'WB com prices', column B (Brent)	https://www.worldbank.org/en/research/commodity-markets click on 'monthly prices'. For the tab 'WB com prices', the Excel file downloaded from the URL was pasted as-is. accessed 2/2024
Baltic Dry Index	All results CHL COL note.xlsx, tab 'baltic'	https://www.balticexchange.com/en/data-services/market-information0/dry-services.html Monthly data must be purchased in the dataset URL. For the tab 'baltic', data was pasted in a column with the month from January 2021 to December 2022 and the value of the Baltic Dry Index for each month. accessed 2/2024
FAO global food price index	All results CHL COL note.xlsx, tab 'FAO data'	https://www.fao.org/worldfoodsituation/foodpricesindex/en/ click 'Excel: Nominal and real indices from 1990 onwards (monthly and annual)' accessed 2/2024
Global food trade data	All results CHL COL note.xlsx, tab 'raw G1.1'	Query on UN COMTRADE database executed through World Integrated Trade Solution (https://wits.worldbank.org/). To replicate the parameters of the search, please replicate the Nomenclature, ProductCodes, ReporterNames, PartnerNames, Year and TradeFlowName as specified in 'raw G1.1', then copy the data from WITS into the spreadsheet 'raw G.1.1' and create a pivot table as shown in 'pivot G1.1'. Filter by ParterName, use ProductName for rowlabels and ReporterName for column labels and sum TradeValue in the fields. First, put the filter to 'World' to extract total imports of wheat and maize by all countries, Chile, and Colombia and copy them into columns C, F and H on tab 'G1.1'. The, put the filter to 'Ukraine' and copy world imports from Ukraine into column D on tab 'G1.1' accessed 2/2024

Chile growth and inflation data	All results CHL COL note.xlsx, tab 'CHL growth and inflation'	<p>Quarterly growth data from Central Bank of Chile: https://si3.bcentral.cl/Siete/ES/Siete/Cuadro/CAP_CCNN/MN_CCNN76/CCNN2018_PO_V2/637801082315858005</p> <p>For the tab 'CHL growth and inflation', data was pasted in columns E-H for the variables total GDP (column E), GDP growth (column F), seasonally adjusted GDP (column G) and growth of the seasonally adjusted GDP (column H). Data points are yearly for rows 8-12 and quarterly for rows 14-36.</p> <p>Monthly inflation data from National institute of Statistics (Chile): https://www.ine.gob.cl/estadisticas/economia/indices-de-precio-e-inflacion/indice-de-precios-al-consumidor</p> <p>accessed 2/2024</p>
Colombia growth and inflation data	All results CHL COL note.xlsx, tab 'COL growth and inflation'	<p>Quarterly growth data from Colombia's National Administrative Department of Statistics (DANE) https://www.dane.gov.co/index.php/estadisticas-por-tema/cuentas-nacionales/cuentas-nacionales-trimestrales/pib-informacion-tecnica Click on " Descargar " for - Anexos estadísticos PIB gasto: PIB a precios constantes - Anexos estadísticos PIB gasto: PIB a precios corrientes</p> <p>Monthly CPI inflation https://www.banrep.gov.co/es/estadisticas/indice-precios-consumidor-ipc Click on "Series IPC total nacional e inflación (desde 07/1954)"</p> <p>Monthly CPI food inflation https://www.banrep.gov.co/es/estadisticas/otros-indicadores-de-inflacion Click on "Nuevas medidas de inflación, clasificación BANREP (desde 01/1999)"</p> <p>Monthly inflation data was averaged to obtain the quarterly figures.</p> <p>accessed 2/2024</p>

Setting up Excel sheet tabs:

To reproduce the graphs, follow these instructions:

Sheet name	Details on setting up
CHL grown and inflation	Copy and paste the data "Quarterly growth data from Central Bank of Chile" in Columns E-H and rows 14-36 following the instructions for "Chile growth and inflation data" above.

raw G1.1	Follow instructions for “Global food trade data” source above.
Pivot G1.1	Generate pivot table over all data contained in ‘raw G1.1.’. Select ‘ProductCode’ for rows, ReporterName and PartnerName for columns, and the sum of TradeValue as values. Copy ProductCodes into column A of ‘G1.1’. and ‘TradeValue’ into column C. Copy world imports from all countries into column B, and world imports from Ukraine into column C. Copy Chile’s imports from all countries into column F, and Colombia’s imports from all countries into column H. Sort descending by column E (Ukraine’s share in world trade).
G1.1	
“raw” tabs: G21., G3.1, G4.2, G 4.3, G5, G6, overview	Copy and paste these from the exported code output to the excel file “All result CHL COL note original.xlsx”
G6.1	<p>Copy and paste these values from “raw G6”</p> <p>Step 1:</p> <ul style="list-style-type: none"> - Filter column A to "CHL_wheat" and column G to "yes". - Columns A-D: Copy and paste these columns to the same columns in the sheet "G6.1". - Columns E-G: Copy and paste these columns to columns F-H in the sheet "G6.1". <p>Step 2: Create the Date using columns B-D in "G6.1".</p> <p>Step 3: For columns J-Q in "G6.1", filter for "no" in column G in "raw G6" and follow the same steps as above.</p>
G6.2	Follow the same steps as G6.1, but instead of CHL_wheat, filter for “CHL_maize”
G6.3	Follow the same steps as G6.1, but instead of CHL_wheat, filter for “COL_wheat”
G6.4	Follow the same steps as G6.1, but instead of CHL_wheat, filter for “COL_maize”
WB com prices	Copy and paste these from the source mentioned in the source table for 1960M01 to 2024M04. Values for 1960M01 should be row 7.
com prices	Copy and paste the values for Maize and Wheat from Columns AE and AL in “WB com prices” according to the timeline in “com prices”. Note that the price will be the same for all the days in a month as “WB com prices” are monthly.
baltic	Copy and paste the monthly Baltic Dry Index in column B for each month

Report figures’ location in results file:

Figure # in report	Location of graph and underlying data in “All results CHL COL note_original.xlsx”	Details
1	Overview table	Figure produced by Excel calculations in Rows 11 – 14, Columns E- J. Input Data in sheet “raw overview” exported by code. To reproduce the figure, copy and paste the sheet “raw overview”.
2	FAO data	Figure produced by Excel calculations in Rows 4 – 27, Columns I- K. Input data copy-pasted from the source mentioned in the readme and included in the result excel file.

3	G1.1	Figure produced by Excel calculations in Column E, G, and I. Input data copy-pasted from source mentioned in the readme (see more details in source table for Global food trade data)
4 (top)	Chile growth and inflation	Figure produced by Excel calculations in Column I, Rows 26 – 33; Columns G, Rows 84 – 92; Column I, Rows 84-91. Input data copy-pasted from the source mentioned in the readme.
4 (bottom)	COL growth and inflation	Figure produced by Excel calculations in Rows 32, 37 and 38. Input data copy-pasted from the source mentioned in the readme and included in the result excel file.
5 a/b/c/d	G2.1	Figure produced by Excel calculations in Rows 3 -26 and Columns AX and AW; AO and AN; AZ and AY; AQ and AP. Input data is combination of numbers in “raw G2.1” which is exported by code and “erates” (source mentioned in readme). Results will be automatically updated once the code exported results are copy-pasted in “raw G2.1”
6	G1.2	Figure produced by Excel calculations in Rows 15 and 16. Input data is from sheet “G4.2” which takes input from “raw G4.2” and “raw G2.1” (exported from code).
7 a/b	G2.1 (scroll down)	Figure produced by Excel calculations in Rows 3-26 and Columns AG, H, and R; AH, M, and C. Input data is from “raw G2.1” (exported from code). Results will be automatically updated once the code exported results are copy-pasted in “raw G2.1”
8	G4.2 (scroll to the right)	Figure produced by Excel calculations Rows 16-27 and Columns AN and AP; AO and AQ Input data from “raw G4.2” (exported from code).
9	G1.2 (scroll down)	Figure produced by Excel calculations Rows 58-65, Column D and E. Input data from sheet “G4.2” which takes input from “raw G4.2” (exported from code).
10	G1.2 (scroll down)	Figure produced by Excel calculations Rows 76-79, Column D and E. Input data from sheet “G4.2” which takes input from “raw G4.2” (exported from code).
11 a/b	G5	Figure produced by Excel calculations Rows 3-26, Column S, T, L and C; , S,T, N and E Input data for Wheat and maize values come from “raw G5” (exported from code). Baltic and oil price come from “Baltic” and “WB com prices” (the sources are mentioned in readme).
12 a/b	G4.1	Figure produced by Excel calculations in Columns C, D, G and H; E, F, I and J.

		Input data from “raw G4.1” (exported from code).
13 a/b	G3.1	Figure produced by Excel calculations in Rows 4 – 27 and Columns J, L and M; I, K, and N. Input data for Wheat and maize values from “raw G3.1” (exported from code). World market price from “WB com prices” (source mentioned in readme).
Annex 1b	G6.1	Figure produced by values in Columns G and P. Input data for CHL wheat pasted from “raw G6” (exported from code) and “com prices”.
Annex 1c	G6.2	Figure produced by values in Columns G and P. Input data for CHL maize pasted from “raw G6” (exported from code)
Annex 1d	G6.3	Figure produced by values in Columns G and P. Input data for COL wheat pasted from “raw G6” (exported from code)
Annex 1e	G6.4	Figure produced by values in Columns G and P. Input data for COL maize pasted from “raw G6” (exported from code)

Please reach out to Erik von Uexkull at jvonuexkull@worldbank.org for any questions.