# Fuel Riots Database v4.0

# Codebook

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### Methodology

### Source of the data

The data collated in this database has been collected from different sources. Data for some variables have been collected ad hoc (e.g. data on fuel riots), and other variables have been collected from trusted sources such as World Bank and other renowned organisations.

### Merging procedure

The variables selected from the different databases have been merged based on country codes and, when these were not available or inconsistent, country names. The final code used in this database is ISO-3166 Alpha-3, however different databases used different codes and sometimes different spellings for country names. To address this, the codes were manually changed (or added when not present) and variables added to the master database by merging them based on the new codes added.

### Variables, codes and definitions

### Code

Description: 3-letter code for each country corresponding to the ISO-3166 Alpha-3 code for the country

### Year

Description: Numerical variable with integers from 2005 to 2018 which reflects the years for which data was collected

### Country

Description: Name of the countries for which data is available, using most common spelling.

### Fuel\_riot

Description: Variable that identifies whether a country experienced a fuel riot in a specific year. 1 corresponds to riots in the country, 0 for no riots.

Scale: Boolean variable

Source: Data collected as part of the project. See accompanying paper McCulloch et al. (2020) for further details.

### ff\_subsidies

Description: IMF’s calculation of fossil fuel subsidies for the period 2010-2017. This variable is an aggregate of the estimates available via the ‘IMF Energy Subsidies Template’. From the template we sourced data for ‘total consumer pre-tax subsidies’, which include four energy sources (oil, natural gas, coal and electricity) as these capture the difference between retail prices and international price of the resource when this is internationally traded (i.e. fuel), and the difference between the retail price and the user cost (cost of production) for those not usually traded (i.e. electricity).

Scale: Continuous; Unit: US$ billions

Source: Le, N.T., Coady, D. and Shang, B. 2019. IMF Energy Subsidies Template. [Accessed on 01/08/2021]

### Gdp\_constant

Description: Gross Domestic Product per capita of countries expressed in constant US 2010 US$

Scale: Continuous; Unit: US$

Source: World Bank World Development Indicators Database - <https://databank.worldbank.org/source/world-development-indicators>

### Gdp\_pc

Description: Gross Domestic Product per capita of countries, i.e. the ratio between the gdp of a country and its population.

Scale: Continuous; Unit: US$

Source: World Bank World Development Indicators Database

### Population

Description: Number of individuals in countries.

Scale: Integer

Source: World Bank World Development Indicators Database

### Anti\_sys\_mov

Description: Presence of anti-system movements in the country defined as ‘any movement — peaceful or armed — that is based in the country (not abroad) and is organized in opposition to the current political system. That is, it aims to change the polity in fundamental ways, e.g., from democratic to autocratic (or vice-versa), from capitalist to communist (or vice-versa), from secular to fundamentalist (or vice-versa). This movement may be linked to a political party that competes in elections but it must also have a "movement" character, which is to say a mass base and an existence separate from normal electoral competition’ (Coppedge et al, 2021, p.195). This was sourced from the V-Dem database and records different levels of presence of this type of movements, from none (0) to high (1).

Scale: Range [0,1]; Unit: individuals

Source: Bernhard et al. (2015, V-Dem Working Paper Series 2015:13); Pemstein et al. (2021, V-Dem Working Paper Series 2021:21); Coppedge, M., et al. 2021. "V-Dem Codebook v11.1" Varieties of Democracy (V-Dem) Project.

### Gov\_effectiveness

Description: This indicator captures government effectiveness and is developed as part of the World Bank Worldwide Governance Indicators. This captures ‘perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies’ (WGI 2020, p.1) <https://info.worldbank.org/governance/wgi/pdf/ge.pdf>. Ranges from -2.5 (weak) to 2.5 (strong) governance performance).

Scale: Range [-2.5, 2.5]

Source: World Bank Worldwide Governance Indicators <https://databank.worldbank.org/source/worldwide-governance-indicators> ; Daniel Kaufmann, Aart Kraay and Massimo Mastruzzi (2010). "The Worldwide Governance: A Summary of Methodology, Data and Analytical Issues". World Bank Policy Research Working Paper No. 5430 http://papers.ssrn.com/sol3/papers.cfm?abstract\_id=1682130

### Corruption

Description: This variable captures levels of corruption in countries. This variable and is described as ‘The directionality of the V-Dem corruption index runs from less corrupt to more corrupt unlike the other V-Dem variables that generally run from less democratic to more democratic situation. The corruption index includes measures of six distinct types of corruption that cover both different areas and levels of the polity realm, distinguishing between executive, legislative and judicial corruption. Within the executive realm, the measures also distinguish between corruption mostly pertaining to bribery and corruption due to embezzlement. Finally, they differentiate between corruption in the highest echelons of the executive at the level of the rulers/cabinet on the one hand, and in the public sector at large on the other. The measures thus tap into several distinguished types of corruption: both ‘petty’ and ‘grand’; both bribery and theft; both corruption aimed and influencing law making and that affecting implementation’ (Coppedge et al, 2021, p.296).

Scale: Range [0,1]

Source: McMann et al. (2016, V-Dem Working Paper Series 2016:23); Coppedge, M., et al. 2021. "V-Dem Codebook v11.1" Varieties of Democracy (V-Dem) Project.

### Liberties

Description: This variable captures expert knowledge on whether national governments are known to repress civil society organizations in countries. Possible responses are ‘0: Severely. The government violently and actively pursues all real and even some imagined members of CSOs. They seek not only to deter the activity of such groups but to effectively liquidate them. Examples include Stalinist Russia, Nazi Germany, and Maoist China. 1: Substantially. In addition to the kinds of harassment outlined in responses 2 and 3 below, the government also arrests, tries, and imprisons leaders of and participants in oppositional CSOs who have acted lawfully. Other sanctions include disruption of public gatherings and violent sanctions of activists (beatings, threats to families, destruction of valuable property). Examples include Mugabe’s Zimbabwe, Poland under Martial Law, Serbia under Milosevic. 2: Moderately. In addition to material sanctions outlined in response 3 below, the government also engages in minor legal harassment (detentions, short-term incarceration) to dissuade CSOs from acting or expressing themselves. The government may also restrict the scope of their actions through measures that restrict association of civil society organizations with each other or political parties, bar civil society organizations from taking certain actions, or block international contacts. Examples include post-Martial Law Poland, Brazil in the early 1980s, the late Franco period in Spain. 3: Weakly. The government uses material sanctions (fines, firings, denial of social services) to deter oppositional CSOs from acting or expressing themselves. They may also use burdensome registration or incorporation procedures to slow the formation of new civil society organizations and sidetrack them from engagement. The government may also organize Government Organized Movements or NGOs (GONGOs) to crowd out independent organizations. One example would be Singapore in the post-Yew phase or Putin’s Russia. 4: No. Civil society organizations are free to organize, associate, strike, express themselves, and to criticize the government without fear of government sanctions or harassment‘ (Coppedge et al, 2021, p.193). Responses are aggregated via a Bayesian item response theory measurement model (Coppedge et al, 2021, p.193).

Scale: Continuous

Source: Bernhard et al. (2015, V-Dem Working Paper Series 2015:13); Pemstein et al. (2021, V-Dem Working Paper Series 2021:21); Coppedge, M., et al. 2021. "V-Dem Codebook v11.1" Varieties of Democracy (V-Dem) Project.

### Regime

Description: This variable captures the type of regime present in countries. The possible responses for this variable are ‘0: Closed autocracy: No multiparty elections for the chief executive or the legislature. 1: Electoral autocracy: De-jure multiparty elections for the chief executive and the legislature, but failing to achieve that elections are free and fair, or de-facto multiparty, or a minimum level of Dahl’s institutional prerequisites of polyarchy as measured by V-Dem’s Electoral Democracy Index (v2x\_polyarchy). 2: Electoral democracy: De-facto free and fair multiparty elections and a minimum level of Dahl’s institutional prerequisites for polyarchy as measured by V- Dem’s Electoral Democracy Index (v2x\_polyarchy), but either access to justice, or transparent law enforcement, or liberal principles of respect for personal liberties, rule of law, and judicial as well as legislative constraints on the executive not satisfied as measured by V-Dem’s Liberal Component Index (v2x\_liberal). 3: Liberal democracy: De-facto free and fair multiparty elections and a minimum level of Dahl’s institutional prerequisites for polyarchy as measured by V- Dem’s Electoral Democracy Index (v2x\_polyarchy) are guaranteed as well as access to justice, transparent law enforcement and the liberal principles of respect for personal liberties, rule of law, and judicial as well as legislative constraints on the executive satisfied as measured by V-Dem’s Liberal Component Index (v2x\_liberal)’ (Coppedge et al, 2021, p.283).

Scale: Ordinal

Source: Lührmann et al. (2018); Coppedge, M., et al. 2021. "V-Dem Codebook v11.1" Varieties of Democracy (V-Dem) Project.

### Energy\_import

Description: This variable captures energy imports net of energy use and is defined as ‘Net energy imports are estimated as energy use less production, both measured in oil equivalents. A negative value indicates that the country is a net exporter. Energy use refers to use of primary energy before transformation to other end-use fuels, which is equal to indigenous production plus imports and stock changes, minus exports and fuels supplied to ships and aircraft engaged in international transport’ (WDI metadata).

Scale: Continuous; Unit: Percentage of energy use

Source: World Bank World Development Indicators Database

### Gcmp\_fuel

Description: This variable captures number of conflict events related to the scarcity or lack of access to fuel resources, where at least one death occurred in countries. The types of conflict included are riot, demonstration, protest, injury, looting, arrest/imprisonment and suicide. This variable was collected as part of the Global Chaos Map Project (see Phadtare et al. 2019).

Scale: Integer

Source: Phadtare et al. 2019. Global Chaos Map Methodology. Available at <https://aru.ac.uk/global-sustainability-institute-gsi/research/global-risk-and-resilience/global-chaos-map-project/methodology>

### Acled\_riots

Description: This variable aggregates the sub-event type ‘Riots’ from the Armed Conflict Location and Event Data (ACLED) project. This variable is defined as ‘‘Riots’ are violent events where demonstrators or mobs engage in disruptive acts, including but not limited to rock throwing, property destruction, etc. They may target other individuals, property, businesses, other rioting groups or armed actors. Rioters are noted by generic terms (e.g. ‘Rioters (Country)’); if representing a group, the name of that group is recorded in the respective ‘Associated actor’ column. Rioters may begin as peaceful protesters, or may be intent on engaging in spontaneous and disorganized violence from the beginning of their actions. Contrary to armed groups, rioters do not use sophisticated weapons such as guns, knives or swords. “Crude bombs” (e.g. Molotov cocktails, petrol bombs, firecrackers) may be used in rioting behaviour. The following sub-event types are associated with the ‘Riots’ event type: ‘Violent demonstration’ and ‘Mob violence’’ (ACLED 2019, p.14).

Scale: Integer

Source: ACLED 2019. Armed Conflict Location & Event Data Project (ACLED) Codebook.