

Supplementary Materials & Codebook: Introducing the Military
Involvement in the Economy (MIITE) Dataset, 1950-2024

Version 1

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Appendix A: Coding Rules & Defenitions

What is Military Involvement in the Economy?

Military involvement in the economy is defined as: any kind of formal profit-making economic activity by branches of the military or military officials that operate on behalf of the military organization. Such activities must generate profits for the military or its members and cannot be self-sufficient or non-profit developmental activities. Below, the main concepts in the definition are explained.

The Military

The military in the MIITE dataset includes armed forces and their affiliated organizations that are not considered civilian. As Ministry of Defense (MoD) is considered a civilian organization, industries held by MoDs are not included in the data unless there is evidence that links the military to the production or management of the MoD-run enterprises and that the military receives monetary benefits through its involvement. This scenario holds true in countries where MoD and the military are practically the same organization and/or active-duty officers are in charge of the ministry. Regarding individuals within the military, I code economic activities of individual officers as military involvement in the economy only if officers operate on behalf of the military or use the resources of the military to run the businesses and such activities do involve the military as an institution in production and management of affiliated companies and activities. In other words, personal businesses of officers are not included in the dataset.

Profit Generating Activity

To observe military involvement in the economy, I expect that enterprises controlled by the military will generate profits that benefit the institution and its members. The way in which the military allocates these profits—whether for the personal gain of individual officers, future investments, or expenditures on personnel and equipment—does not constrain the

definition of military economic involvement. There is no minimum threshold for the amount of profit required for an activity to qualify as military involvement in the economy. As long as the activity supplies the military or its members with off-budget resources, it is considered in the data.

Type of Activity

MIITE dataset does not consider economic activities of some militaries with the purpose of basic self-sufficiency as economic involvement. Basic self-sufficiency means any activity by the military to produce commodities in order to meet its own basic needs. For example, the Chinese military had for years been responsible for providing its members with some portion of their basic needs such as food, clothing, and essentials. The military had to get involved in activities such as farming and raising crops and other local activities to meet these needs (Mulvenon, 2016). However, their production was only for covering military consumption and not selling for the sake of profit. Such productive activities are considered basic self sufficiency efforts for self-preservation since the production is consumed by the military itself. These activities are not considered military participation in the economy because the military does not earn profits from such activities. Furthermore, I do not classify the typical developmental roles of the military—such as assisting the central government in infrastructure development, providing food aid to the poor, offering educational services, or delivering disaster relief—as military economic involvement, since these activities are not primarily aimed at generating profits.

There is one type of profit-generating economic activity by the military that is not included in this study and that is illegal economic activities for the sake of earning profits. There are cases in which the military as an organization is involved in smuggling drugs, arms, valuable resources like diamonds, golds, oil, etc. For example, some argue that Venezuela's military facilitates smuggling of drugs to the United States in order to generate funds for the

military¹ but such activities are not included in the data. The reason is that MIITE data's purpose is to capture institutional efforts of the military as an organization to run/manage economic enterprises within the country's established norms in order to generate funds for the military. The different processes that lead to military involvement in formal/legal versus illegal economic activities necessitates a distinction between the two activities as separate phenomena. It is also almost impossible to capture militaries' illegal businesses due to the nature of such activities and secrecy behind them.

Type of Control

There are three main forms through which militaries can operate within the economic sphere with regard to economic enterprises. These three forms are complete ownership of economic entities, partial ownership of or having shares in a firm, and domination of a firm. Below I explain the coding rules for each category:

Complete ownership means if the military owns 100% of an enterprise. Partial ownership means if the military holds shares in or have stakes in a firm. Militaries often invest in or buy stocks/shares of economic enterprises in order to generate profits. Such investments are part of military economic activities. For example, the military in Egypt owns 51 percent of a firm that has been developing a \$45 billion project to build a new capital city located east of Cairo.² Such ownership is considered military economic activity. There is no minimum for how much of a firm the military needs to own for that investment to be considered military involvement in the economy.

Finally, domination means if a state-owned enterprise is run by the military or active duty military officers get to be part of the management of the entity. For example, the military in Pakistan has taken control of three major public sector organizations throughout the years: National Logistics Cell (NLC), Frontier Works Organization (FWO), and Special Communications Organization (SCO) (Siddiqi, 2017). Such involvements are considered

¹See Organized Crime and Reporting Project (2018); Venezuela Investigative Unit (2018)

²See: Reuters (2018).

part of military economic activities. There is no minimum for how many active duty military officers needs to be part of the management of a public sector organization for that activity to be included in the data.

Sources

I consulted an extensive number of primary and secondary sources in order to find evidence for the presence of military involvement in the economy, the begin and termination date of economic activities, as well as the individual enterprises under the control of the military and their relevant information in every country coded in Correlates of War Data with an existing military. Such sources include official websites of Ministry of Defense, the armed forces, and a myriad of military-run enterprises. I also consulted academic research on civil-military relations in each country, historical narratives, case studies, research organizations, and reliable news agencies. The sources used to collect the data depended greatly on the available information on specific cases but there are four major resources I used to collect the data:

1. Ministry of Defense, armed forces, and military enterprises official websites: many countries do provide information about economic enterprises on government websites, websites of the ministry of defense, websites of the branches of the armed forces, and the enterprises' websites themselves. Much of the information captured in the dataset come from these three sources. Official military and military-run enterprises websites in particular tend to share information about such activities. Information about many of the military-run enterprises coded in the data are derived from such official online platforms. I was able to find the relevant information (eg, date of establishment, name of associated companies, etc.) for many cases by referring to the militaries and military-run businesses official websites. However, it is important to note than although militaries tend to share information about their economic activities -perhaps due to the assumption that they can be regarded as drivers of economic development, they do not publish statistical information on profits, sales, asset value, and other quantitative metrics online.

2. Historical and academic case studies: for every case, I also consulted available historical and academic case studies and narratives. For example, Chambers and Waitoolkiat (2017), Brömmelhörster and Paes (2003), Mani (2007), Mani (2011), Abul-Magd (2017), Mora and Wiktorowicz (2003), and other case study researches provide general and detailed information on the economic activities of militaries under the study. Case studies have proven particularly valuable in gathering information about businesses and operations prior to the widespread adoption of online websites and platforms by businesses. Historical accounts especially were useful in finding information about initiation of economic activities.

3. Governmental organizations, independent and non-profit organizations, policy reports, research centers, and other similar entities. I used reports published by organizations such as Transparency International, Carnegie Endowment for International Peace, Human Rights Watch, BTI project, The Center for Economic and Policy Research, ResearchWorks Archives, and other similar platforms to collect information on economic activities of militaries. Transparency International especially, is one of the main sources used in this category. The organization releases country reports called Government Defense Anti-corruption Index that “assesses the existence, effectiveness and enforcement of institutional and informal controls to manage the risk of corruption in defence and security institutions Transparency International (2024)” for the majority of countries in the world. They have gathered information on whether national defence and security institutions have beneficial ownership of commercial businesses and transparency issues associated with economic activities of the militaries. I consulted every report released by Transparency International for every country, and collected pertinent information that adhered to my coding guidelines.

4. News agencies: finally, I consulted reliable news agencies. A wide range of online platforms were used to collect relevant information in the dataset. I used Google search, Internet Archives, as well as LexisUni to comb through the news covering the topic. Examples of news agencies I used are NYtimes, the Guardian, the Economist, Reuters, NPR, Bloomberg, Wallstreet Journal, as well as reliable news agencies dedicated to a specific country or region,

such as Middle East Business Intelligence, Allafrika, Iranwire, Miamiherald, etc.

I also used sources in languages other than English. I utilized the Google Translate feature available on online platforms for languages supported by the software. For example, I utilized Google Translate to interpret content from online platforms in Spanish or Portuguese for Latin and Central America, French for Francophone Africa, and country-specific languages for platforms in East and Southeast Asian countries. Additionally, for the Middle East region, I relied on Arabic and Persian sources, leveraging my own language skills.

The Emergence and Termination of Military Involvement in the Economy

MIITE data identifies the *initiation* and *termination* year of military economic activities. Such identification is valuable in that it provides researchers with an accurate time-span during which militaries have been involved in profit-generating economic activities. Every country in the dataset has been screened comprehensively for the presence of military involvement in the economy and the initiation date of military economic activities was identified throughout an extensive background search process. Each case in the dataset that was identified as a case with the presence of military involvement in the economy required an extensive process of determining the first military economic enterprise and its establishment date. After finding evidence of the existence of military involvement in the economy by referring to the sources introduced above, I tracked the first enterprise that fell under the military's control or the date the military established/bought/received an economic entity. This identification was made through an extensive study of historical accounts of military economic activities in the country of interest.

From 1950 until 2024, the military in 60 countries established control of at least one enterprise. Three countries (Argentina, Brazil, and Thailand) are among the early cases where militaries initiated economic activities prior to 1950. The most recent cases are Mexico, Gabon, Liberia, and Zambia where militaries initiated economic activities in the past five

years. There are a few cases in which the military completely terminated economic activities. These cases are Haiti (through disbandment), Paraguay, Uruguay, Chile (very recently in 2019), and Argentina. By determining the year the military terminated economic activities, I determine the years in which the military has been involved in the economy for all countries. Table 1 provides information about all countries with military economic activities, the initiation year of such activities, the military's first economic enterprise or activity, and the year of termination of economic activities.

Table 1: List of Countries With Military Business Initiation Between 1950-2024

Country	Initiation-Termination	First Economic Entity/Activity
Algeria	1964	Taking Control of State Farms
Angola	2001	Lunha Imobiliária
Argentina	1941-1995	Dirección General de Fabricaciones Militares (DGFM)
Bangladesh	1972	Army Welfare Trust (AWT)
Bolivia	1972	Corporación de las Fuerzas Armadas para el Desarrollo Nacional
Brazil	1932-1990	
Burundi	2007	La Coopérative d'Épargne et de Crédit pour l'Autodéveloppement
Cambodia	1999	Taking Control of State Lands/Channel & Radio 5
Chile	1973	National Development Corporation (CORFO)
China	1981	Commercialization of military agricultural production
Colombia	1954	Indumil
Congo-Kinshasa	2001	Taking Control of State Farms
Cuba	1991	Grupo de Administración Empresarial SA
Ecuador	1973	Dirección de Industrias de Ejército
Egypt	1954	Ministry of Military Production
El Salvador	1980	Instituto de Previsión Social de las Fuerzas Armadas
Eritrea	2003	Mereb Development Construction Company
Ethiopia	1994	Kality Construction Material Production Company

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Gabon	2024	Société Nationale des Bois du Gabon (National Timber Company)
Gambia	2019	Rice Production
Ghana	2011	CIMCSED/Shoe factory/ The Universal Bank/Defence Industries Holding
Guatemala	1966	Instituto de Pensiones Militares
Haiti	1991-1994	Telecom Haiti/Electricity Company
Honduras	1972	Instituto de Previsión Militar
India	1966	Army Golf Clubs
Indonesia	1950	Trade of agricultural products and natural resources
Iran	1989	Khatam-al Anbiya Construction Firm (GHORB)
Iraq	1988	Military Industries Commission
Jordan	1999	King Abdullah II Design and Development Bureau
Kenya	1997	Kenya Ordinance Factories Corporation
Laos	1984	Bolisat Phathana Khet Phoudoi (BPKP)
Liberia	2021	14 Military Hospital
Mexico	2020	Islas Marias tours/Customs and ports/Tourist railway in Yucatan
Myanmar	1990	Myanmar Economic Holdings Limited (MEHL)
Namibia	1998	August 26 Holdings
Nicaragua	1994	Instituto de Previsión Social Militar
Nigeria	1972	National Oil Industry
Pakistan	1954	The Fauji Foundation (FF)

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Panama	1968-1989	Control of the Free Zone
Paraguay	1955-1989	Taking over lands in the Eastern Border Regions
Peru	1950	Servicio Industrial de la Marina (SIMA)
Philippines	1973	Media communications and public utilities corporations
Qatar	2011	Qatar Armed Forces investment portfolio
Russia	1992-2012	Arms sales/transportation/construction
Rwanda	1995	Crystal Ventures/Zigama financial cooperative
Sierra Leon	2009	Rice production
South Sudan	2013-2014	Directorate of Military Production/Nile Petroleum Corporation (Nilepet)
Sri-Lanka	2009	Farming/ resorts
Syria	1971	Military Construction Implementation Institution
Sudan	1993	Military Industry Corporation (MIC)
Tanzania	1982	SUMA JKT
Thailand	1935	Siam Cotton Mill
Turkey	1961	Oyak
Uganda	1989	National Enterprise Corporation
Uruguay	1974-1984	Central Bank, the UTE, ANCAP, ANTEL, and the post office
Venezuela	1956	Seguros Horizonte
Vietnam	1989	Vietnam Helicopter Corporation
Yemen	1983	Military Economic Corporation (MECO)

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Zambia	2024	Eagles Holding Company Limited
Zimbabwe	1998	Mining Company

The Extent of Military Involvement in the Economy

Not all militaries are equal in the extent to which they operate within the economic sphere. The majority of militaries not only maintain their economic involvement over time but also manage to expand their economic activities throughout the years. In some other cases such as China and Indonesia, the government has managed to convince the military to substantially divest from economic activities. In order to capture the extent to which the military is entrenched into the economy over time, MIITE data offers information on individual enterprises owned/controlled by the military and their detailed information for all countries from 1950-2024. The data includes Over 3,300 firms and their detailed information that I discuss below.

Number of enterprises

For each country, the data includes the name of the enterprises controlled by the military, the date they were established by or went under the control of the military, the date they were disbanded or were removed from the control of the military, and other detailed information discussed below. The company-level nature of the data allows researchers to capture the number of enterprises that are under the control or ownership of the military in a given year.

Economic Sectors

Next, MIITE data codes the economic sectors each enterprise operates in. There exists multiple industry classification schemes such as Standard Industrial Classification, North American Industry Classification System, and other classifications that are widely used in economic and financial studies as well as among the finance community. Each classification is different based on unit, orientation, and purpose. MIITE data attempts to provide a global dataset of military economic activities and because of the international nature of the data, it uses the United Nations industry classification system, International Standard Industrial Classification (ISIC) (United-Nations, 2008) since the classification is widely used for inter-

national statistics and has reasonably well level of comparability to other classification types (Mannetje and Kromhout, 2003).

There exists 21 sectors in the classification. Every enterprise in the dataset receives relevant codes for any and all of the sectors they operate in. In other words, an enterprise can receive more than one code based on the scope of its activities. Every enterprise receives a number according to how many of the above-mentioned sectors the entity operates in. The coding scheme is laid out in table 2.

Table 2: Sectors of Economic Activities

Code	Sector Description	Code	Sector Description
A	Agriculture, forestry, and fishing	K	Financial and insurance activities
B	Mining and quarrying	L	Real estate activities
C	Manufacturing	M	Professional, scientific, and technical activities
D	Electricity, gas, steam, and air conditioning supply	N	Administrative and support service activities
E	Water supply; sewerage, waste management, and remediation activities	O	Public administration and defence; compulsory social security
F	Construction	P	Education
G	Wholesale and retail trade; repair of motor vehicles and motorcycles	Q	Human health and social work activities
H	Transportation and storage	R	Arts, entertainment, and recreation
I	Accommodation and food service activities	S	Other service activities
J	Information and communication	T	Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use
		U	Activities of extraterritorial organizations and bodies

Size of Enterprises

Because reliable financial data for military-run businesses is scarce, a direct measure of firm size using net worth, profits, or market value is not feasible. Most such enterprises do not publish financial statements, and where they exist, they are often incomplete or inconsistent across cases and years. To enable cross-firm comparisons, I develop a proxy measure for enterprise size using a combination of qualitative and quantitative indicators. This hybrid approach adapts standard measures from the economics literature—sales, market value, total assets, and number of employees (Arnegger et al., 2014; Baumann-Pauly et al., 2013)—to the constraints of military enterprise data. Each firm’s size classification is based on three indicators: (1) scope of activity, meaning the geographic and operational reach of the enterprise; (2) the number of subsidiaries or affiliated entities under its control (wholly owned, majority-owned, or joint ventures where it is the primary managing partner); and (3) the number of employees, where available, using broad thresholds adapted from OECD and World Bank categories. Firms are coded according to the highest category they meet on any of the three indicators, unless conflicting data warrants a qualitative reassessment.

Table 3: Scope of Activity Categories

Scope	Definition	Examples
Local	One location only	Single hotel, local club
Semi-national	2–3 locations; regional services	Regional school, construction firm
National	4+ locations or branded as national industry	National bank, airline
Global	International services, joint ventures abroad, or exports	Multinational logistics, exporter

Table 4: Enterprise Size Classification Rules

Size	Scope	Subsidiaries	Employees
Small	Local	None	≤ 50
Medium	Semi-national	≤ 3	51–250
Large	National	3–6	251–1,000
Very Large	Global or national with major projects	≥ 7	1,001+

Extent of Control

This variable (*Control*) measures the degree to which the military exercises authority over a firm, based on ownership and/or management. Three primary mechanisms of control are recognized: (1) complete ownership, where the military (through a foundation, cooperative, or similar entity) owns 100% of the firm; (2) partial ownership, where the military holds shares or equity in the firm; and (3) domination of management, where the military runs a state-owned enterprise (SOE) or military officials occupy a proportion of senior management positions.

The classification follows a clear set of thresholds. **Total Control** is coded when the military owns 99%-100% of the firm or when an SOE is entirely created and managed by the military (no outside shareholders and all senior managers are military). **Large Control** is coded when the military owns 50% or more of a firm, or when military officials occupy more than 50% of senior management positions, but without full domination. **Medium Control** is coded when the military owns more than 10% but less than 50% of a firm, or when military officials hold between 30% and 50% of senior management positions. **Small Control** is coded when the military owns up to 10% of a firm, or when military officials hold less than 30% of senior management positions. When the exact percentage is unknown but credible evidence indicates military stakes or influence, the firm is coded as having **Total Control**.

Table 5: Control Classification Rules

Category	Ownership / Management Threshold
Total Control	Military owns 99–100% of the firm; or SOE entirely created and managed by the military (no outside shareholders; all senior managers are military).
Large Control	Military owns $\geq 50\%$ of the firm; or military officials hold $>50\%$ of SOE management but without full domination.
Medium Control	Military owns $>10\%$ and $<50\%$ of the firm; or military officials hold 30–50% of SOE management.
Small Control	Military owns $\leq 10\%$ of the firm; or military officials hold $<30\%$ of SOE management.

Extent of Operational Capacity

This variable measures the geographic scope of a firm’s operations, based on where it delivers goods or services and maintains active presence. MIITE data categorizes operational capacity into four mutually exclusive levels:

Local Operates in a single location and serves only the local population.

Partial / Semi-national Operates in 2–3 locations; provides goods or services beyond a single locality but not to the entire country.

National Operates across the entire country, providing goods or services nationwide.

International Operates beyond national borders by serving foreign clients, exporting goods or services, and/or engaging in joint ventures with foreign firms.

Variables in the Dataset

Variable Name	Coding Scheme / Description
GrandConglomerate number	Unique numeric ID for each grand conglomerate. Integer.
Conglomerate number	Unique numeric ID for each conglomerate within a grand conglomerate. Integer.
Company number	Unique numeric ID for each firm. Integer.
Country	Country name where the firm is registered or primarily operates. String.
ccode	Country code based on the Correlates of War (COW) system. Numeric.
Firm name	Official registered name of the firm. String.
Firm type	Classification of firm (e.g., private, public, cooperative, foundation, joint venture). String.
Sector1–Sector8	ISIC sector codes where the firm operates. String ISIC Division code.
Parent company?	1 = Yes, firm owns subsidiaries; 0 = No.
Subsidiary?	1 = Yes, firm is owned by another company; 0 = No.
Name of conglomerate	Common name of the conglomerate. String.
Grand conglomerate	Common name of the overarching grand conglomerate. String.
Begin date	Year firm was established or acquired by or went under the control of the military. YYYY format.
End date	Year firm ceased operations or military ownership/management ended. YYYY format. 3000 if still active.

Begin date (conglomerate)	Year conglomerate was established or acquired by the military. YYYY format.
End date (conglomerate)	Year conglomerate ceased or military ownership ended. YYYY format.
Begin date (grand conglomerate)	Year grand conglomerate was established or acquired by or went under the control of the military. YYYY format.
End date (grand conglomerate)	Year grand conglomerate ceased or military ownership/management ended. YYYY format.
Size	Enterprise size category based on scope, subsidiaries, and employees: Small, Medium, Large, Very Large (see coding rules in codebook).
Control	Degree of military control: Total, Large, Medium, Small (see coding rules in codebook).
Operation	Geographic operational scope: Local, Partial/Semi-national, National, International (see coding rules in codebook).
Shares	Military ownership share in percentage (0–100). Numeric.
State-Owned	1 = Yes, state-owned enterprise; 0 = No.
Branch	Name of the branch of the military or the entity in charge of the firm (Military, Army, Navy, Air Force, MoD)
Region	Geographic region based on UN geoscheme. String.

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