

*Exploring the role of international arms transfers in the non-market environment for international businesses across developing countries under authoritarian regimes.*

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**Introduction**

MNCs have deployed different strategies to gain market share worldwide and are relevant players in the globalisation process.<sup>1</sup> Most research on these strategies has been focused on market strategies related to market forces, as described by Porter, (1979). Scarce research has been conducted on their different non-market strategies to obtain privileged competitive conditions over current or potential competitors.<sup>2</sup>

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<sup>1</sup> Cravino, J. and Levchenko, A. (2017). Multinational Firms and International Business Cycle Transmission. *The Quarterly Journal of Economics*, 132 (2): pp. 921-962.

<sup>2</sup> Non-market strategies correspond to legal, political and social arrangements to influence business interactions with markets, involving non-market stakeholders such as governments, the academy, Non-Governmental Organisations (NGOs), environmental activists, local communities, organized social movements, among others (Baron, 1995).

Non-market strategies have involved interactions with non-market players to be granted privileges. Among these players, the military forces have traditionally played a key role in ruling developing countries with relatively weaker institutions, especially in countries with different types of authoritarian regimes. At the same time, these forces have relied on their access to firepower to sustain the control of the State. The process of how MNCs can strategically benefit from the requirement of firepower by these regimes has received little research attention to protect their property rights on their local assets.

This article contributes to explore and analyse this under-researched area as there is growing evidence of competing international powers such as China, Iran and Russia using international cooperation agreements combining arms transfers and business deals that are appealing to MNCs from these countries as well as to military forces across many developing countries under authoritarian rule, while there are also reports of MNCs from other countries recurring to alliances with different arms suppliers to protect their operations against risks on their property rights in politically unstable countries.

**Research questions:**

In order to explore the strategic role of arms transfers for MNCs as a hedge against risks to their property rights in countries under authoritarian regimes, this article conducts a literature review and further analysis through the Wilson-Lowi matrix proposed by Wilson (1980) and proposes a framework based on game theory to answer the following research question:

RQ1. What are the conditions that MNCs should consider for their successful leverage on arms transfers into their investments' host countries under authoritarian regimes to protect their local property rights?.

The answer to the previous question leads to consider responses to the following sub-questions:

*Q1.* What are the characteristics of the non-market business environment in developing countries under authoritarian regimes?

*Q2.* Why is it important for MNCs to rely on military ties to protect their

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operations in developing countries under authoritarian regimes?

Q3. How can MNCs exploit arms transfers to enhance their bargaining power with the local authorities in their investments' host countries under authoritarian regimes?

### Literature review

*Distinctive non-market players in developing countries under authoritarian regimes:*

In the business literature, the study of non-market strategies has been focused on successful strategies put into practice by businesses to gain competitive advantages by influencing non-market forces to achieve a business context in their favour, as observed by Baron (1995).

In developing countries, businesses tend to reveal a higher resource dependency on governments, which requires strong political connections to access resources through relational strategies.<sup>3</sup> On the other hand, recent evidence shows that relational strategies in politically unstable countries might expose businesses to retaliations as a result of political shocks affecting their political connections.<sup>4</sup> Many of these retaliations are the result of previous practices undertaken by governments with varying authoritarian types comprising dominant party regimes, military regimes, personalist regimes, monarchies, oligarchic regimes, indirect military regimes and hybrids of the first three.<sup>5</sup> In all authoritarian regimes, the power is concentrated through the exclusion of opponents at different degrees by recurring the use of violence through armed forces as a common pattern. This reliance places military forces as prominent actors in these regimes with direct or indirect involvement in local governments' decisions. Hong et al., (2012) consider that the *idiosyncratic manner* through the flexibility by which businesses interact with governments and institutions in developing countries is the key element to responding to institutional pressures.

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<sup>3</sup> Peng, M. and Luo, Y. (2000). "Managerial ties and firm performance in a transition economy: The nature of a micromacro link." *Academy of Management Journal*, Volume 43, pp 486–501.

<sup>4</sup> Siegel, J. (2007). "Contingent political capital and international alliances: Evidence from South Korea." *Administrative Science Quarterly*, pp.52: 621–666.

<sup>5</sup> Geddes, Barbara. (1999). "What Do We Know About Democratization After Twenty Years?." *Annual Review of Political Science*, 2:1, pp. 115-144.

According to the resource dependency theory applied to authoritarian regimes, Suriyapongprapai et al (2021) found in Thailand that military ties contribute to increasing firm performance, which is stronger during military-led governments. Basualdo et al (2021) also reported on the favourable impact on MNCs' results when these engage with military-led governments in countries such as Argentina, Brazil, Chile and Central America during military regimes in the 70s and 80s to contain demands from actors of the civil society such as labour unions, etc. Further findings on the impact of engagements with political and military players on businesses were evidenced in Latin America by Carlos et al (2018) through a sample of local airlines from 1919 to 1984, revealing that their relationships with political and military players increased their survival rates. Moreover, their involvement with military players contributed to improving their survival rates in countries under revolutionary processes since the military control on local firepower may deter revolutionary movements from targeting particular MNCs with strong military ties. However, military forces do not always act as cohesive institutions in many cases as there might be factions within them with diverging political interests. This kind of scenario represents a challenge for MNCs pursuing ties with the right military forces to ensure their operational continuity in local markets.

The impact of diverging military factions on MNC operations has been evidenced in different events worldwide. For example, the government of Venezuela since 2000 started to pursue a leftist agenda under the pro-military Chavez administration that was resisted by a wide sector of the local civil society and some factions of the local military forces that ended up in a first coup d'état attempt in 2002 backed by a faction of the military force and some sectors of the civil society with the acceptance of foreign governments, including the United States (US), the European Union (EU), among others. After Chavez's administration regained control of the Venezuelan State, his government suspended military collaboration with the US army in different fields under suspicion of espionage and conspiracy against the local Venezuelan government. As a result, the US government ruled an arms embargo against the Venezuelan regime, whose weaponry was mostly composed of arms provided by US producers. In a strategic move, the Venezuelan government started to acquire new weapons from alternative suppliers in countries such as China and Russia from 2004 to 2006. Once the local government ensured a new composition of local weaponry by reducing its previous high reliance on arms from US producers, then, the Chavez administration executed the next steps of its leftist agenda after 2007 by

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expropriating the local operations of MNCs from countries whose governments were regarded as enemies, such as those from the US, the EU, etc., while favouring the local expansion of Emerging Markets MNCs (EMNCs) from countries such as Brazil, China, Russia, Iran, among others, whose governments were considered as allies of the Venezuelan ruling authorities under the Chavez's administration.<sup>6</sup> This kind of movement should be managed by MNCs through a robust approach to mitigate its impact under different political scenarios considering the strategic role of the local weaponry composition.

As the maintenance of new regimes by force requires their control of the local weaponry, it is important to review the main players in the international arms transfer market to identify them as well as their approaches to gaining international influence in different areas, including the ties of MNCs with them to rely on their bargaining power as suppliers of key weaponry to military actors engaged in State control through authoritarian practices in developing countries with a relatively weaker institutional context.

*The international arms transfer market and its impact on Foreign Direct Investment*

The arms transfer market worldwide comprises five categories of weapons, namely: weapons of mass destruction, major weapon systems, small arms and light weapons, dual-use arms for civilian and military purposes and arms-related services, each of them with different market structures and monitoring intensity on their operations. Conventional weapons comprise major weapon systems, small arms and light weapons. Major weapon systems are provided by an oligopoly comprising companies such as Lockheed Martin, Boeing, Raytheon, Northrop Grumman, General Dynamics from the US, BAE Systems from the United Kingdom (UK), Airbus from several European Countries<sup>7</sup>, Thales from France, Leonardo from Italy and Almaz-Antey from Russia, whereas light weapons are provided by a larger number of producers, hence, their proliferation is more difficult to control.<sup>8</sup>

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<sup>6</sup> Gonzalez, Jose. (2019). "Los negocios que tienen China y Rusia en Venezuela que los lleva proteger a Maduro" [The businesses that China and Russia own in Venezuela that lead them to protect Maduro], *La Republica*. Retrieved from: <https://www.larepublica.co/globoeconomia/los-negocios-que-tienen-china-y-rusia-en-venezuela-que-los-lleva-proteger-a-maduro-2857860>

<sup>7</sup> Airbus: partnership originally involving the states of France, Germany, Spain and the United Kingdom.

In general, different governments worldwide use arms transfers abroad for strategic purposes. Sislin (1994) considers that the US has traditionally used arms transfers to politically influence its recipient countries from 1950 to 1992. The author shows that these attempts have been more likely to be successful in civilian regimes as well as when US producers supplied most of the recipients' arms inventory. Recently, the Trump administration released controls on US arms transfers in 2018 by placing more emphasis on the economic benefits to US arms corporations, however, these arms transfers might contribute to arms proliferation that might be used to undermine US interests over the long term.<sup>9</sup>

A deeper analysis of the arms transfer market also reveals connections between arms producers, politicians and military forces as reported by different authors in the US and Europe.<sup>10</sup> US and European arms producers attempt to influence the allocation of public budgets in their favour by fostering ties with public decision-makers through donations to politicians and by promoting *reverse revolving doors* or *revolving door* practices, as observed with defence ministers with prior or posterior positions in boards of directors of arms producers, among other evidence as well as taking part in security think tanks.<sup>11</sup> The following Table 1 reports the most influential security think tanks worldwide:

<sup>8</sup> Van Lieshout, J. and Beeres, R. (2022). "Economics of arms trade: What do we know?". Chapter 2 in Beeres, R; Bertrand, R; Klomp, J; Timmermand, J and Voetelink, J. (Eds), *NL ARMS Netherlands Annual Review of Military Studies 2021 Compliance and Integrity in International Military Trade*, pp. 13-30. Published by T.M.C. ASSER PRESS, The Hague, The Netherlands.

<sup>9</sup> Dick, S. and Stohl, R. (2019). "Global Arms Trade: Setting an Example for Responsible Policy. Stimson." Retrieved from: <https://www.stimson.org/2019/global-arms-trade-setting-example-responsible-policy/>

<sup>10</sup> Summers, R. (2022). "The Pentagon's Revolving Door Keeps Spinning: 2021 in Review", POGO. Retrieved from: [https://www.pogo.org/analysis/2022/01/the-pentagons-revolving-door-keeps-spinning-2021-in-review#:~:text=Throughout%202021%2C%20the%20revolving%20door,revolved%20to%20the%20private%20sector](https://www.pogo.org/analysis/2022/01/the-pentagons-revolving-door-keeps-spinning-2021-in-review#:~:text=Throughout%202021%2C%20the%20revolving%20door,revolved%20to%20the%20private%20sector;); Calvo, J. (2021). "No business without enemies: War and the arms trade." TNI Longreads. Retrieved from: <https://longreads.tni.org/stateofpower/no-business-without-enemies-war-and-the-arms-trade>

<sup>11</sup> *Revolving door* involves movements of personnel changing roles as legislators and/or regulators to further obtain positions as members of industries affected by laws and regulations, resembling the movement of people in a physical revolving door. *Reverse revolving door* involvement personnel movement from the private sector to the public sector to enact laws or regulations in favor of private sector players.

**Table 1: Main international security think-tanks**

Name	Country of residence
Atlantic Council	United States
Belfer Center for Science and International Affairs	United States
Brookings Institution	United States
Carnegie Endowment for International Peace	United States
Center for a New American Security	United States
Council on Foreign Relations	United States
Heritage Foundation	United States
RAND Corporation	United States
International Institute for Strategic Studies	United Kingdom
Royal United Services Institute	United Kingdom
European Union Institute for Security Studies	France
The National Institute for Defense Studies	Japan
Institute for National Security Studies	Israel
Australia Strategic Policy Institute	Australia
China Institute of International Studies	China

**Source:** Calvo (2021)

The profile of the main donors to US-based and UK-based security think tanks reveals a varied mix, including companies from economic sectors such as arms, aerospace, biotechnology, business consultancy, commodities trading, e-commerce, energy, financial services, food, informatics, mining, social online networks, pharma, telecommunications, as well as entities of allied foreign governments such as embassies, investment promotion agencies, among others.

The connections of the arms industry with other economic activities have also been evidenced with industrial conglomerates involving large arms producers, such the case of Rostec from Russia, which is a conglomerate comprising activities such as aeronautics, automobile, biotech, chemicals, civil engineering, electronics, medical equipment,



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telecommunications, among others, leveraged on its arms business led by Rosoboronexport, which provides arms and related services to around 45 countries, including its largest arms deals with countries such as Algeria, China, Egypt, India and Vietnam.<sup>12</sup> Other Russian conglomerates involved in the arms industry comprise JSC Russian Machines, The United Heavy Machinery and Sistema Holding.<sup>13</sup> This conglomerate structure eases coordination efforts for the placement of diverse goods and services obtained from countertrade transactions related to its arms exports across their different supply chains.<sup>14</sup>

The Russian experience reveals a pattern of relying on a large arms industry to gain foreign markets in different economic sectors, including the use of countertrade practices such as direct offsets and buyback agreements transferring knowledge to partner countries, such as the installation of arms producing factories in Venezuela, where Russia transferred technology for the local production of Kalashnikov rifles under cooperation agreements to be granted privileged conditions for the local operations of Russian oil and gas producers in that country as well as Russian debt forgiveness in exchange for arms contracts in countries such as Algeria and Libya to gain local geopolitical influence.

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<sup>12</sup> Congressional Research Services. (2021). "Russian Arms Sales and Defense Industry." CRS Report. Retrieved from: <https://crsreports.congress.gov/product/pdf/R/R46937>; Bermudez, A. (2019). "Crisis en Venezuela: qué papel tiene la poderosa corporación rusa de defensa Rostec" [Crisis in Venezuela: which role has the powerful Russian Defence Corporation Rostec]. BBC News Mundo. Retrieved from: <https://www.bbc.com/mundo/noticias-america-latina-48522498>

<sup>13</sup> US Department of the Treasury. (2018). "Treasury Designates Russian Oligarchs, Officials, and Entities in Response to Worldwide Malign Activity." Retrieved from: <https://home.treasury.gov/news/press-releases/sm0338>

<sup>14</sup> Arms transfers are characterized as special trade flows in international commerce since these are usually arranged under payment methods involving the use of countertrade transactions, hence, mitigating the use of monetary transactions for this aim. Nowadays, several international arms purchases involve the use of buyback and offset agreements. Under buyback agreements, an exporter provides inputs to an importer to produce finished goods to be further exchanged with the exporter as partial or total compensation, whereas under offset agreements the exporter agrees on terms set by the importer generally requiring the assembly of parts related to a main product in the importer's country in exchange for other goods and services from the importing country, which might comprise direct and indirect offsets. Direct offsets involve compensatory products or services related to a main product or service through contracts such as coproduction or outsourcing using the exported parts, whereas indirect offsets are not linked to a main product but the exporter might have to import unrelated goods or services from the importing country. These agreements might also involve generic offsets by which importing countries require additional benefits from the exporter such as training, FDI, marketing assistance to place local products abroad, etc.



In other cases, countries with a high reliance on Russian weaponry have led them to keep trade flows with this arms supplier, regardless of international economic sanctions on Russia after its invasions of Ukraine in 2022 and 2014, as evidenced by the continuous purchases of Russian oil by India, which reports a high percentage of its weaponry supplied by Russia.<sup>15</sup>

Similar agreements have been used by other countries such as Iran, which established a drone production facility in Tajikistan in 2022 with most of its output being destined to Iran's allies and other customers, such as Sudan and Ethiopia. By relying on its advanced knowledge of drone production technology and taking advantage of the current engagement of Russia in its war on Ukraine, Iran has managed to exchange this technology for other advanced military technology from Russia.<sup>16</sup> These military exchanges have favoured the entry into the Russian market of Qods Aviation Industries, a State-Owned Enterprise (SOE) from Iran, while positioning Russia as the largest FDI provider in Iran during the period of 15 months ending in December 2022, especially investing in Iranian oil and gas by Russian companies such as the SOE Gazprom after committing USD 2.7 Billion for the development of oil fields, overpassing the Chinese investments into this country that hardly amounted to USD 185 Million over the same period.<sup>17</sup>

By contrast, China has used its larger financial resources, mostly controlled by the State, to lend to developing countries in exchange for investments in the exploitation of their natural resources as well as offering conditioned loans to acquire Chinese products and using countertrade practices focused on direct and indirect offsets. Under this approach, China exerts lower political influence on recipient developing countries in

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<sup>15</sup> Alarabiya News. (2023). "Indian refiners pay traders in dirhams for Russian oil." Retrieved from: <https://english.alarabiya.net/News/world/2023/02/03/Indian-refiners-pay-traders-in-dirhams-for-Russian-oil>; Hernandez, C. (2022). "Rusia estima que la fábrica de Kalashnikov en Venezuela será inaugurada en 2022" [Russia expects that the Kalashnikov Factory in Venezuela will start operations in 2022]. *Infodefensa*. Retrieved from: <https://www.infodefensa.com/texto-diario/mostrar/3357571/rusia-estima-fabrica-kalashnikov-venezuela-sera-inaugurada-2022> ; Agence France Presse – AFP. (2019). "Rusia exhibe su armamento militar para seducir a Africa" [Russia exhibits its military weaponry to seduce Africa]. Retrieved from: <https://www.france24.com/es/20191024-rusia-exhibe-su-armamento-militar-para-seducir-a-%C3%A1frica>

<sup>16</sup> The Soufan Center. (2022). "IntelBrief: Iran-Russia Drone Production Deal Draws Tehran Deeper into Ukraine War." Retrieved from: <https://thesoufancenter.org/intelbrief-2022-december-12/>

<sup>17</sup> *Fars News Agency*. (2023). "Russia Turns Into Largest Foreign Investor in Iran." Retrieved from: <https://www.farsnews.ir/en/news/14011109000505/Rssia-Trns-In-Larges-Freign-Invesr-in-Iran>

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comparison to Russia, which leverages its foreign investments on arms deals with these countries involving much lower financial resources and displacing traditional arms suppliers in countries across Africa such as France.<sup>18</sup>

On the other hand, the available statistics reveal an increasing atomisation in the number of arms-exporting countries, contributing to improving the bargaining power of many States vis-à-vis their suppliers, in parallel with a growing incidence of international investment disputes. In this regard, after the end of the Cold War, the international arms transfer market has experienced an increase in the number of suppliers while keeping an oligopolistic structure, as revealed by the evolution of its normalized Herfindahl–Hirschman (H-H) index for the period from 1992 to 2021 according to data compiled by the Stockholm International Peace and Research Institute - SIPRI equivalent to a range between 3 to 5 large players in the period 1992 to 2000 to a range between five to seven large players after 2000. Among the top arms exporting countries during the period 1992-2021, the US was the largest supplier, however, their global market share fell to 33 percent after 2002. Over the same period, Russia managed to restart trade relationships with former importers of Soviet weapons as a legacy business as well as to obtain new clients from countries such as China, Venezuela, and others. Other top exporting countries have been France, Germany, The UK, China and Italy during the same period.<sup>19</sup>

At the same time, the number of investment disputes related to Foreign Direct Investment (FDI) has increased according to reports by the International Centre for Settlement of Investment Disputes (ICSID), mainly across developing countries in the same period, especially after 2000, as shown in Appendix 1.<sup>20</sup> The geographic distribution of disputes under the ICSID Convention and Additional Facility Rules shows the following composition as a percentage of total cases in Table 2:

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<sup>18</sup> Financial Times. (2023). “Russia in Africa: how Moscow bought a new sphere of influence on the cheap.” Retrieved from: <https://www.ft.com/content/0c459575-5c72-4558-821e-b495c9db9b6f>

<sup>19</sup> Stockholm International Peace and Research Institute – SIPRI. (2022). “Importer/Exporter TIV Tables.” Retrieved from: <https://armstrade.sipri.org/armstrade/page/values.php>

<sup>20</sup> International Centre for Settlement of Investment Disputes – ICSID. (2022). “The ICSID Caseload Statistics. Issue 2022-1.” Retrieved from: <https://icsid.worldbank.org/resources/publications/icsid-caseload-statistics>

**Table 2: Geographic distribution of disputes under ICSID Convention and Additional Facility Rules by December 2021.**

Region	Percentage of cases
Eastern Europe & Central Asia	26%
South America	22%
Sub-Saharan Africa	15%
Middle East & North Africa	11%
Western Europe	8%
South & East Asia & the Pacific	7%
Central America & the Caribbean	6%
North America (Canada, Mexico, US)	5%

Source: ICSID (2022)

In relation to Table 2, most disputes have emerged across Eastern Europe, Central Asia, South America, Sub-Saharan Africa, the Middle East and North Africa with more than 50% of cases. In particular, the nationalisation of FDIs has been accelerated after 2000 in different developing countries as part of their government policies. The most relevant cases have been identified in jurisdictions such as Argentina, Bolivia, Ecuador, Nicaragua, Venezuela in Latin America and Zimbabwe in Africa.<sup>21</sup> Among these countries, Bolivia, Ecuador, Nicaragua, Venezuela and Zimbabwe have been classified as autocracies at some moments after 2000 coinciding with expropriation attempts.<sup>22</sup> During this period, the arms trade patterns of these countries revealed a reduction of their reliance on providers from specific exporting countries whose companies had been affected by nationalisation policies in importing countries. According to SIPRI (2022), Bolivia stopped its arms imports from the US in 2014 to increase its imports from China and France, Ecuador last acquired US arms in 2010 and has increased its imports from The Netherlands and Spain, Venezuela reduced its reliance on arms imports from the US after 2003 to shift them to China, The Netherlands, Russia and Spain, whereas Nicaragua has been mostly importing from Russia, even before 2000 and Zimbabwe reported a more diversified mix of arms imports, mostly from the US and Russia.

<sup>21</sup>US Department of State. (2022). “2021 Investment Climate Statements.” Retrieved from: <https://www.state.gov/reports/2021-investment-climate-statements/>

<sup>22</sup> Sanchez-Sibony, O. (2021). “Competitive Authoritarianism in Morales’s Bolivia: Skewing Arenas of Competition.” *Latin American Politics and Society*, 63(1), pp. 118-144. doi:10.1017/lap.2020.35.

Even though the traditional use of arms transfers by exporting countries to gain geopolitical influence, defence companies reveal different trade patterns with importers in conflict-affected areas, in some cases only engaging with one party in conflict whereas in other cases engaging with different counterparties, as evidenced with arms producers such as Rostec (Russia) and Leonardo SpA (Italy) supplying arms to India and Pakistan, fighting each other in the recent Kashmir conflict, as reported by the ExitArms database on the main suppliers to the top most arms demanding conflicts during the period 2015-2020, compiled by the human rights organisations Facing Finance and Urgewald (2022).

### **Profiling the strategic approach of MNCs through international arms transfers:**

There is empirical evidence backing a strong relationship between regime change and expropriation events in which affected groups by those policies are expected to procure alliances with military players. Tusalem (2010) shows that developing countries with stronger protection of property rights and authoritarian regimes were likelier to evidence a lower probability of Coup d'Etat events during the period 1970 to 1990. This pattern was statistically significant in Africa, Asia, and Latin America. These findings were tested by using Binary Times Series Cross-Section models over the previous period assessing the impact of the Contract Intensive Money ratio and different measures of the International Country Risk Guide, including the type of regimen (authoritarian or democratic) as well as property rights protection levels as proxy explanatory variables impacting on the likelihood of a Coup d'Etat as the dependent variable. This evidence supports previous suggestions from different authors that Coup d'Etats arise from the action of military forces to preserve the property rights of elites, including MNCs, on their assets due to events such as expropriations and confiscations through explicit or implicit alliances with these elites according to the elite-class theory on coups.<sup>23</sup> These findings

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<sup>23</sup>Gupta, Dipak K. (1990). *The Economics of Political Violence*. New York: Praeger Press; David, Steven R. (1987). *Third World Coups d'Etat*. Baltimore, MD: Johns Hopkins University; Nun, Jose. (1976). "The Middle Class Coup Revisited." In Abraham Lowenthal (ed.), *Armies and Politics in Latin America*. New York: Holmes & Meier; O'Donnell, Guillermo. (1973). *Modernization and Bureaucratic Authoritarianism: Studies in South*

are in contrast to Huntington (1968), who considered that coups are likelier when the military forces are strong and dissatisfied with the incumbent regime but without considering the impact of expropriation attempts on this likelihood.

From the previous review, investment flows led by MNCs into these countries can be achieved through different arrangements involving the arms industry by establishing and nurturing strong links such as those related to industrial conglomerates as evidenced by the Russian approach as well as by weaker and more flexible links under arrangements to bring together different players such as think-tanks as mostly evidenced across NATO countries. In order to obtain the approval of governments for sensitive transactions involving arms transfers, MNCs should pursue two different strategies: one focused on the government of their home country and another one focused on the government of the host country of their investments, which can be explored according to the Wilson-Lowi matrix in Table 3.

**Table 3:** Wilson-Lowi matrix for the strategic alliance of MNCs with the arms industry to enter into new countries ruled by authoritarian regimes.

		Benefits	
		Concentrated	Diffuse
Costs	Concentrated	<p>Interest Group Politics:</p> <ul style="list-style-type: none"> <li>• Home country: Concentrated MNCs and opponents (Labour Unions, Pro-rights NGOs, Media, Legislators/government officers).</li> <li>• Host country: Concentrated beneficiaries (official military factions) and opponents (market competitors, paramilitary factions).</li> </ul>	<p>Entrepreneurial Politics:</p> <ul style="list-style-type: none"> <li>• Home country: Diffuse MNCs and concentrated opponents (Labour unions, pro-rights NGOs, Media, Legislators/government officers).</li> <li>• Host country: Diffuse beneficiaries (official military factions) and concentrated opponents (market competitors, paramilitary factions).</li> </ul>
	Diffuse	<p>Client Politics:</p> <ul style="list-style-type: none"> <li>• Home country: Concentrated MNCs and diffuse opponents (Labour Unions, Pro-rights NGOs, Media, Legislators/government officers).</li> <li>• Host country: Concentrated beneficiaries (official military factions) and diffuse opponents (market competitors, paramilitary factions).</li> </ul>	<p>Majoritarian Politics:</p> <ul style="list-style-type: none"> <li>• Home country: Diffuse MNCs and diffuse opponents (Labour Unions, Pro-rights NGOs, Media, Legislators/government officers).</li> <li>• Host country: Diffuse beneficiaries (official military factions) and diffuse opponents (market competitors, paramilitary factions).</li> </ul>

**Source:** Author's own elaboration.

As expressed in Table 3, MNCs might procure a more effective reliance on the arms industry to enter into countries with diffuse official military factions that are attempting to control these countries without much competition from political forces.

Under these scenarios, some of these military factions might increase their bargaining power and social control through their firepower-strengthening by allied arms providers related to MNCs to further procure the equivalent to interest group politics by discouraging or more effectively fighting their enemies, or client politics, by keeping their enemies divided. For MNCs this process might involve in their home countries a shift from entrepreneurial politics, procuring to gather diffuse MNCs with similar interests facing more concentrated groups against trade deals with authoritarian regimes, to interest group politics, characterized by more concentrated and influential gatherings of MNCs attempting to divide opposing groups, or from majoritarian politics, involving the handling of diffuse groups of MNCs without much bargaining power in the approval process of trade deals with authoritarian regimes, to client politics, by joining MNCs interested in deals with authoritarian regimes, while keeping diffuse opponents in their home countries.

In the process of investing abroad through strategic alliances with arms providers, MNCs need to engage in specific strategies to counteract opponent groups, such as labour unions procuring to avoid displacements of industries abroad at the cost of higher local unemployment, pro-human rights Non-Governmental Organisations (NGOs) and related groups, including the media, exposing and pressuring to block arms dealings with regimes that violate human rights as a typical pattern in countries ruled under authoritarian regimes in general as well as legislators and government officers concerned for the political costs in terms of votes and local tax revenues related to the decision of local MNCs to invest abroad rather than in their jurisdictions. The process of gaining influence on government officers and legislators to authorize business-military alliances involving arms transfers abroad requires a higher bargaining power from the MNCs' side through their concentration under conglomerates, think tanks, and industrial and trade chambers, among other arrangements for this purpose.

The dynamics of the reliance on the provision of firepower to military forces as key actors in host countries under authoritarian regimes to dissuade investment expropriation attempts requires an analytical framework. The following analysis contributes to providing a framework for the strategies followed by the key players involved in the non-expropriation dissuasive purposes pursued by MNCs through their reliance on arms transfers to authoritarian regimes ruling without m any observance of



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national and international laws as many of these regimes do not abide by international conventions on investment disputes.

**An analytical framework for the strategic leveraging of MNCs on arms transfers:**

MNCs might arrange alliances with the arms industry by including incentives for both parties to agree on a coalition based on different expected compensations for them according to Rubinstein's bargaining models.<sup>24</sup> This coalition is analysed in the following case 1 and works as a dissuasive foreign business–military supplier coalition to prevent expropriation of FDI in a host developing country controlled by an authoritarian regime relying on its firepower as a tool to exert authority through the use of violence.

**Case 1:** Dissuasive foreign business – military supplier coalition to prevent expropriation of FDI in a host developing country under an authoritarian regime.

In this expropriation game illustrated in the next Figure 1, a MNC is planning to start operations in a developing country under an authoritarian regime whose government (GOV) relies on its local weaponry rather than on popular support from its citizens to control the country.<sup>25</sup>

Under this game, the local weaponry in the host country requires a permanent supply of military goods and services from arms providers of country 1 (AP1) and country 2 (AP2) that allows GOV to survive with probability  $\lambda$  through the support of AP1 and with probability  $\gamma$  through the support of AP2, GOV pays AP1 and AP2 the amounts  $U$  and  $A$  respectively through foreign trade offset transactions under credit conditions to achieve the previous survival probabilities. All players are assumed to risk neutral considering that GOV can recoup losses through the impositions of taxes whereas

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<sup>24</sup> Rubinstein, A. (1982). "Perfect Equilibrium in a Bargaining Model." *Econometrica*, Volume 50, Issue 1, pages 97–109.

<sup>25</sup> Miller, R. and Cardaun, S. (2020). "Multinational security coalitions and the limits of middle power activism in the Middle East: the Saudi case." *International Affairs*, Volume 96, Issue 6, pages 1509–1525. <https://doi.org/10.1093/ia/iiaa158>; Garfinkel, M. and Skaperdas, S. (2007). "Economics of Conflict: An Overview." Chapter 22 in Garfinkel, M. and Skaperdas, S. (Eds), *Handbook of Defense Economics*, Volume 2, published by Elsevier.

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MNC, AP1 and AP2 spread their business risks worldwide through their operations in different jurisdictions.

According to the expropriation games based on Dixit et al. (2015), the MNC is unsure whether GOV is: 1) honourable (H) with probability  $\alpha$ , allowing Foreign Direct Investment (FDI) to normally operate in its controlled country under a non-expropriation scenario (NE) and paying a fair indemnity in case of expropriation (E), with a compensation amount equals to the invested amount (I) by the MNC in that country, which will be paid as long as GOV survives or 2) opportunistic (O), with probability  $1 - \alpha$ , promoting FDI into the country with a willingness to consider expropriation of the MNC's investment without paying indemnity (confiscation case). GOV knows its type, namely, if it is H, then it will procure to fairly treat the MNC, otherwise, it will act as O, unfairly treating the MNC.

As many developing countries have not agreed on international conventions to protect FDI in their countries or are even considering the suspension or non-renewal of previously agreed FDI protections, leaving out third parties as mediators in investment disputes, then, the MNC plans to set a dissuasive strategy to face GOV by entering into a coalition with arms producers from a close allied country of the MNC, in this case the arms producers from country 1 (AP1). Under this coalition, the MNC will compensate the AP1 to stop their collaboration with GOV to reduce its survival probability from  $\lambda + \gamma$  to  $\gamma$  if it expropriates the MNC's investment. This compensation equals  $U(\lambda + \gamma)$ , which represents the expected amount that AP1 would receive from GOV provided that GOV manages to survive with the collaboration of AP1 and AP2.

In addition, the GOV knows about this coalition between the MNC and AP1 as foreign arms transfers to developing countries are usually arranged through countertrade transactions, giving the foreign exchange constraints that these countries frequently face and involving the payment of arms imports with commodities produced in the importing country. The arrangement of many of these countertrade transactions leads to agreements between arms producers and MNCs involved in the production and trading of commodities in arms-importing countries that might be further used as payment methods for arms imports. Recent cases show the involvement of many MNCs in arms transfers such as oil & gas MNCs willing to purchase oil & gas from governments as payment methods for their arms imports. These flows contribute to explaining recent

empirical evidence on the existence of a “local oil dependence” revealing that the amount of arms imported by a country has a direct relationship with the amount of oil exported to the arms supplier.<sup>26</sup> In this regard, there are several reports on countertrade transactions involving oil for arms arrangements such as the al-Yamamah contract by which the Saudi government acquired weapons from BAE systems in the UK since 1985 in exchange for oil from Saudi Arabia to be further traded in the market for cash by oil & gas MNCs such as Shell and British Petroleum, as well as the oil for weapons deals arranged by NORINCO from China acquiring Chinese arms to be delivered to governments in oil-producing, such as Venezuela, in exchange for oil or oil exploitation rights in countries where this MNCs has interests, among other similar cases involving MNCs and arms producers.<sup>27</sup>

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<sup>26</sup> Bove, Vincenzo; Deiana, Claudio and Nistico, Roberto. 2018. “Global Arms Trade and Oil Dependence.” *The Journal of Law, Economics, and Organization*, Oxford University Press, vol. 34(2), pp 272-299.

<sup>27</sup> Nyabiage, Jevans. (2023). “Chinese weapons supplier Norinco expands influence in West Africa, challenging Russia and France.” South China Morning Post. Retrieved from: [https://www.scmp.com/news/china/diplomacy/article/3231408/chinese-weapons-supplier-norinco-expands-influence-west-africa-challenging-russia-and-france?utm\\_source=rss\\_feed](https://www.scmp.com/news/china/diplomacy/article/3231408/chinese-weapons-supplier-norinco-expands-influence-west-africa-challenging-russia-and-france?utm_source=rss_feed); Gribben, Roland. (2006). BAE lands arms deals for a new generation. The Telegraph. Retrieved from: <https://www.telegraph.co.uk/finance/2945759/BAE-lands-arms-deal-for-a-new-generation.html>

**Figure 1: Payoffs of an expropriation game considering a coalition between a MNC and Arm Producers (AP1).**

Payoffs without coalition, assuming GOV as type Honourable (H) with probability  $\alpha$ :

		GOV	
		NE	E
MNC	Inv	(1) MNC: $R(1-t)(\lambda+\gamma) - I$ GOV: $(Rt-U-A)(\lambda+\gamma)$ AP1: $U(\lambda+\gamma)$	(2) MNC: $I(\lambda+\gamma)-I$ GOV: $(R-I-U-A)(\lambda+\gamma)$ AP1: $U(\lambda+\gamma)$
	NInv	(3) MNC: 0 GOV: 0 AP1: 0	(4) MNC: 0 GOV: 0 AP1: 0

↑ AP1 collaborates with GOV.  
Arms Producers (AP1)  
↓ Coalition with MNC, AP1 does not collaborate with GOV if E.

Payoffs under coalition MNC and Arm Producers, assuming GOV is type Opportunistic (O) with probability  $1 - \alpha$ :

		GOV	
		NE	E
MNC	Inv	(1) MNC: $R(1-t)(\lambda+\gamma) - I$ GOV: $(Rt-U- A)(\lambda+\gamma)$ AP: 0	(2) MNC: $-I - U(\lambda+\gamma)$ GOV: $(R-A)(\gamma)$ AP: $U(\lambda+\gamma)$
	NInv	(3) MNC: 0 GOV: 0 AP1: 0	(4) MNC: 0 GOV: 0 AP1: 0

Source: The Author's own elaboration.

In this game, the MNC is assumed as producer of the commodity that will be used by the GOV to pay for its arms imports from AP1. MNC will sell this commodity for cash to pay for the imports from AP1. MNC will accept to enter into future countertrade transactions to favour this export payment method for the business expansion of AP1 whenever the latter accepts to stop business deals with GOV upon its decision to expropriate the MNC's local assets as AP1 is unwilling to directly accept the commodity as payment method to be further sold for cash. MNC is willing to compensate for this business loss to AP1 by accepting to arrange countertrade deals in new geographical markets to ease AP1's local sales.

The MNC will consider whether to invest (Inv) in the host country controlled by GOV or not to invest (NInv). If the MNC decides Inv, then, it will obtain a return amount of R from its investment and this amount will be taxed at the rate t by GOV provided that MNC's local investment is not expropriated. The MNC knows that GOV prefers the alternative Inv but is unwilling to commit to international conventions to protect FDI to avoid paying fair indemnities in case of expropriation. A desirable Bayesian Nash Equilibrium to encourage FDI into the investment host country requires that the MNC chooses Inv and the GOV chooses NE regardless of its type. For this purpose, the dissuasive coalition should ensure that the expected return for the GOV in case of E stays lower than its expected return under a decision of NE regardless GOV's type and keeping the military support from AP1 as well as from AP2 under pure and mixed game strategies, as follows:

#### **Game under pure strategies:**

In the case of pure strategies, the expected return for GOV should meet expression (1) to ensure that NE is its preferred strategy over E:

$$(Rt - U - A)(\lambda + \gamma) \geq (R - I - U - A)\alpha(\lambda + \gamma) + (R - A)(1 - \alpha)\gamma \quad (1)$$

Rearranging expression (1), the following relationship is obtained for the survival probability  $\lambda$ :

$$\lambda \geq \left[ \frac{(R - I - U - A)\alpha + (R - A)(1 - \alpha) - (Rt - U - A)}{(Rt - U - A) - (R - I - U - A)\alpha} \right] \gamma \quad (2)$$

Subject to the restrictions  $1 \geq \lambda \geq 0$  and an expected return for the MNC under pure strategies of  $R(1-t)(\lambda+\gamma) - I > 0$ , the previous expression (2) will hold whenever  $R$ ,  $t$  and  $I$  increase and  $\alpha$ ,  $\gamma$ ,  $U$  and  $A$  decrease. Implicitly, GOV will not deviate from this equilibrium when it increases its tax revenues from the MNC's local operation through a higher return amount  $R$  or through any renegotiation of the investment terms or an equivalent partial expropriation by raising its tax rate  $t$ , however, this tax rate should not increase to 100%, which would represent an indirect expropriation. An increase in value of the investment,  $I$ , to be fully paid to the MNC as indemnity by GOV as type H in case of expropriation should discourage the attractiveness of an expropriation as it reduces its expected fiscal surplus and the evidence on the arbitration of international investment disputes also reveals that this mechanism is more attractive to MNCs in terms of cost/benefit at higher amounts  $I$ , given the level of legal fees associated to arbitration procedures.<sup>28</sup> In addition, reductions in the payments  $U$  and  $A$  to AP1 and AP2 contribute to an increase in the GOV's expected fiscal surplus, increasing the relative attractiveness of option NE in comparison to E.

At lower probabilities  $\alpha$  of GOV being type H and lower survival probability  $\gamma$  provided by AP2, then, the higher the importance of the survival probability  $\lambda$  provided by AP1 to ensure that GOV will not expropriate the MNC's investment, yielding a Bayesian Nash Equilibrium in pure strategies played by GOV and the MNC.

### **Game under mixed strategies:**

Under these strategies, GOV allocates probabilities to play each pure strategy (NE and E) and changes its chosen strategies regardless of their type. This kind of practice could be expected from governments with less radical views in relation to the

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<sup>28</sup> Hodgson, Matthew; Kryvoi, Yarik and Hrecka, Daniel. 2021. "2021 Empirical Study: Costs, Damages and Duration in Investor-State Arbitration." Report by The British Institute of International and Comparative Law and Alley & Overy. Retrieved from: [https://www.biicl.org/documents/136\\_isds-costs-damages-duration\\_june\\_2021.pdf](https://www.biicl.org/documents/136_isds-costs-damages-duration_june_2021.pdf)

State ownership of the means of production. Under a coalition to withdraw military support to an opportunistic GOV that expropriates, it might revert its preferred strategy from E to NE, in order to keep this support for its survival. The MNC will be unsure about the strategy that GOV will follow according to its real type. GOV might be willing to play NE when it is of type H with a probability equal to  $\rho_1$  and play NE with a probability equal to  $\rho_2$  when it is of type O. The condition for a Bayesian Nash Equilibrium to hold in mixed strategies requires that GOV will be indifferent between E and NE, otherwise, GOV will play its most profitable strategy and would be predictable but GOV prefers to keep is unpredictability, hence, its expected returns under both strategies must be equal, as follows:

$$(Rt - U - A)(\lambda + \gamma)\alpha\rho_1 + (Rt - U - A)(\lambda + \gamma)(1 - \alpha)\rho_2 = (R - I - U - A)(\lambda + \gamma)\alpha(1 - \rho_1) + (Rt - A)(\gamma)(1 - \alpha)(1 - \rho_2) \quad (3)$$

From expression (3), the following expression (4) can be obtained for the value of  $\lambda$  to keep the indifference condition stated in (3) for mixed strategies:

$$\lambda = \left\{ \frac{(R - I - U - A)\alpha(1 - \rho_1) + (R - A)(1 - \alpha)(1 - \rho_2) - (Rt - U - A)[(1 - \alpha)\rho_2 + \alpha\rho_1]}{(Rt - U - A)[\alpha\rho_1 + (1 - \alpha)\rho_2] - (R - I - U - A)\alpha(1 - \rho_1)} \right\} \gamma \quad (4)$$

From (4), the survival probability  $\lambda$  should be raised to obtain equilibrium in mixed strategies played by GOV whenever the amounts U and A as well as the probabilities  $\gamma$  and  $\rho_1$  increase. On the other hand, the probability  $\lambda$  should fall with increases in the amounts R and I, the probabilities  $\alpha$  and  $\rho_2$  and the tax rate t.

This mixing of strategies should yield an expected return for the MNC as follows:

$$[R(1-t)(\lambda + \gamma) - I]\alpha\rho_1 + [I(\lambda + \gamma) - I]\alpha(1 - \rho_1) + [R(1-t)(\lambda + \gamma) - I](1 - \alpha)\rho_2 - [I + U(\lambda + \gamma)](1 - \alpha)(1 - \rho_2) > 0 \quad (5)$$

MNCs following this coalition strategy should signal a feasible commitment to directly or indirectly compensate arms providers upon expropriations by



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host governments, otherwise, these governments might consider these coalitions as unreliable and be tempted to proceed with expropriation attempts on MNCs' investments.

**Case 2:** MNC backing attempts to overthrow a government expropriating FDI in a host country under an authoritarian regime.

Further to the previous analysis, MNCs might be unable to halt arms transfers and related services to opportunistic governments, especially if MNCs do not have strong connections with both, large arms producers and governments controlling arms exports. However, many MNCs operating in conflict-affected areas are increasingly contracting security services to private providers known as Private Military Companies (PMCs) such as Executive Outcome (South Africa), Sandline (UK) and Wagner Group (Russia), which are gaining international presence. These PMCs are mostly involved in providing physical security to MNCs' assets, especially for MNCs in extractive industries such as Oil & Gas, Mining, and others.<sup>29</sup> In many cases, the payment to these PMCs is tied to the control of these assets by their hiring MNCs, which might encourage these PMCs to get involved in activities related to regime changes to ensure a more favourable environment for their payment as evidenced in African and Asian countries such as Mozambique, Sierra Leone, Syria, among others.<sup>30</sup> These practices breach the 2001 United Nations International Convention against the Recruitment, Use, Financing and Training of Mercenaries, but this convention has been only ratified by 46 States, including large arms producers such as Germany and Italy but not by larger arms producers such as the US, China, France and Russia. Instead, the Montreux Document on Pertinent International Legal Obligations and Good Practices for States related to Operations of Private Military and Security Companies during Armed Conflict of 2008 has been ratified by 3 international organisations and 58 States, including large arms producers such as

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<sup>29</sup> DeGhetto, K., Lamont, B. and Michael Holmes, R. (2020). "Safety Risk and International Investment Decisions." *Journal of World Business*, Volume 55, Issue 6, <https://doi.org/10.1016/j.jwb.2020.101129>; Mursitama, T and Setyawan, W. (2012). "Emerging Role of Multinational Corporations as Private Military Companies: Converging International Relations and International Business Perspectives." *International Journal of Business and Social Science*, Volume 3, No. 23.

<sup>30</sup> Avant, Deborah D. (2005). *The Market for Force: The Consequences of Privatizing Security*. Cambridge: Cambridge University Press.

China, France, Germany, Italy, the UK, the US, providing a clear framework for the international operations of PMCs.<sup>31</sup>

This trend in the hiring of PMCs by MNCs might lead to a growth in international arms transfers outside the scope of government-to-government negotiations. MNCs might procure the use of these companies to partially or totally replace any leverage through alliances with large arms producers and military service providers controlled by allied governments. This context leads to propose the following game for a MNC attempting to increase its expected profits from a host country facing political and military factions in conflict by backing a competing Alternative Government (AGOV) in case of expropriation by GOV according to the elite-class theory on coups by *Finer (1962)*, as shown in the following Figure 2:

**Figure 2:** Payoffs of an expropriation game considering a MNC dealing with challenging factions for political power (AGOV) in the host country of its investment.

Payoffs assuming GOV as type Honourable (H), with probability  $\alpha$ :

		GOV	
		NE	E
MNC	Inv	(1) MNC: $R(1-t)(\lambda+\gamma) - I$ GOV: $(Rt-U-A)(\lambda+\gamma)$ PMC1: $U(\lambda+\gamma)$	(2) MNC: $I(\lambda+\gamma)-I$ GOV: $(R-I-U-A)(\lambda+\gamma)$ PMC1: $U(\lambda+\gamma)$
	NInv	(3) MNC: 0 GOV: 0 PMC1: 0	(4) MNC: 0 GOV: 0 PMC1: 0

Payoffs, assuming GOV is type Opportunistic (O) with probability  $1 - \alpha$ :

		GOV	
		NE	E
MNC	Inv	(1) MNC: $R(1-t)(\lambda+\gamma) - I$ GOV: $(Rt-U-A)(\lambda+\gamma)$ PMC1: $U(\lambda+\gamma)$	(2) MNC: $-G$ GOV: $(R-U-A)(\lambda+\gamma-\Delta)$ PMC1: $U(\lambda+\gamma-\Delta)+G$
	NInv	(3) MNC: 0 GOV: 0 PMC1: 0	(4) MNC: 0 GOV: 0 PMC1: 0

<sup>31</sup> Montreux Document Forum. (2022). "Participating states of the Montreux document." Retrieved from: <https://www.montreuxdocument.org/about/participants.html>

Payoffs assuming AGOV as type Honourable (H), with probability  $\beta$ :

		AGOV	
		NE	E
MNC	Inv	(1) MNC: $R(1-t)(\phi) - I$ AGOV: $(Rt-U)(\phi)$ PMC1: $U(\phi)$	(2) MNC: $I(\phi)-I$ AGOV: $(R-I-U)(\phi)$ PMC1: $U(\phi)$

Payoffs, assuming AGOV as type Opportunistic (O) with probability  $1 - \beta$ :

		AGOV	
		NE	E
MNC	Inv	(1) MNC: $R(1-t)(\phi) - I$ AGOV: $(Rt-U)(\phi)$ PMC1: 0	(2) MNC: $-I$ AGOV: $(R-U)(\phi)$ PMC1: $U(\phi)$

Source: The Author’s own elaboration.

For simplicity, it is assumed in Figure 2 that the MNC deals with the Private Military Company 1 (PMC1), which also deals with GOV as its supplier for military-related services. MNC hire PMC1 for their networking closeness as well as for the knowledge that PMC1 has on the military technology used by the official army and its military or paramilitary challengers in the host country. These challengers can get access to the local weaponry through their direct handling as members of the official local army or by stealing it, which is a common pattern in many conflict-affected areas. MNC will back these challenging forces to GOV by paying the amount  $G$  to PMC1 to provide support to these forces to overthrow GOV and to run an alternative government (AGOV) whenever GOV decides to confiscate the already MNC’s investment in the country. This backing to AGOV will contribute to reducing GOV’s survival probability  $\Delta$ , as its potential challengers will increase their firepower and manpower to defeat and displace GOV. GOV is able to assess the minimum variation  $\Delta$  of its survival probability to be defeated by its challengers if these are funded by the MNC once expropriated by the GOV. GOV could expect that MNCs with low reputational risk concerns as evidenced through low reporting transparency, especially in issues related to Environmental, Social and Governance (ESG) standards as well as a longer track record of political involvement, might be more prone to back political regime changes for their own financial benefits.

Once AGOV manages to control the host country, then, the MNC will need to assess AGOV's type by allocating a probability of  $\beta$  for an honourable type (H) and a probability of  $1-\beta$  for an opportunistic type (O), as previously defined. AGOV will have a survival probability of  $\phi$  by counting on its own forces and the military support from PMC1 while keeping its payment to this provider for the amount  $U$  as long as AGOV survives.

### Game under pure strategies:

Based on the previous assumptions, the MNC will need to ensure a Bayesian Nash Equilibrium for its investment decision in the host country. Under pure strategies followed by GOV, the MNC should procure that the expected return for GOV under an NE strategy is higher than their respective expected return under an E strategy, as follows:

$$(Rt - U - A)(\lambda + \gamma) > (R - I - U - A)(\lambda + \gamma)\alpha + (R - U - A)(\lambda + \gamma - \Delta)(1 - \alpha) \quad (6)$$

From (6), the following expression should hold for the reduction  $\Delta$  of the GOV's survival probability that the MNC should achieve to overthrow GOV by spending up to  $G$  to ensure that the latter prefers to play an NE strategy:

$$\Delta > - \left[ \frac{(Rt - U - A) - (R - I - U - A)\alpha}{(R - U - A)(1 - \alpha)} + 1 \right] (\lambda + \gamma) \quad (7)$$

The condition will be met for higher values of  $R$ ,  $A$ ,  $U$ ,  $\alpha$ ,  $\lambda$ ,  $\gamma$  and lower values of  $I$  and  $t$ . Higher values of  $R$  require higher variation  $\Delta$  to keep condition (7), contributing to reduce the expected net revenues from the confiscation alternative for GOV, whereas lower levels of  $t$  reduce the expected value of the revenues for the GOV by taxing the MNC, hence, a larger variation of  $\Delta$  is needed to reduce the attractiveness of the confiscation decision. Lower levels of the investment  $I$  to be indemnified upon expropriation increase the expected value of the returns for GOV after a fair expropriation, requiring a higher variation  $\Delta$  to reduce the attractiveness of the confiscation alternative. Increases in  $A$  and  $U$  reduce the expected fiscal surplus for the

GOV, which is more acute when its revenues are obtained by taxing the MNC, then, a higher variation  $\Delta$  should be needed to reduce the expected value of the expropriation. Finally, a higher probability  $\alpha$  associated with a more honourable type for GOV increases the likelihood of a fair expropriation and the consequent expected value of its fiscal surplus, requiring a higher variation  $\Delta$  to ensure the GOV will not deviate to the confiscation alternative, which contributes to increase the relative attractiveness of its fiscal surplus under the NE decision, whereas higher survival probabilities  $\lambda$  and  $\gamma$  require higher  $\Delta$  to reduce the expected value of the confiscation alternative.

For the MNC, the expected value of its return should correspond to the following expression to justify its backing to AGOV to overthrow GOV if the latter expropriates its investment in the host country:

$$[I(\lambda+\gamma) - I]\alpha + [R(1-t)\phi - I - G](1 - \alpha) > 0 \quad (8)$$

From (8) the following expression (9) should be held for the maximum value of  $G$  to achieve at least a reduction  $\Delta$  of GOV's survival probability according to (7):

$$G < \left\{ \frac{[(\lambda + \gamma) - 1]\alpha}{1 - \alpha} - 1 \right\} I + R(1 - t)\phi \quad (9)$$

Higher values of  $R$ ,  $\alpha$ ,  $\lambda$ ,  $\gamma$  and  $\phi$  contribute to an increase in the expected returns for the MNC, which encourages it to increase its expenditure  $G$  to overthrow GOV upon expropriation, whereas a higher value of its investment  $I$  and higher taxation on its operating returns through the rate  $t$  lead it to reduce its levels of  $G$  to keep its expected return from its investment. given the level of its operating returns,  $R$ , from this investment.

The MNC might be in a trap if AGOV finds strategy E more attractive than strategy NE following pure strategies. In this case, GOV might pursue E provided that the MNC might be discouraged to back AGOV. This trap could be overcome for high levels of probability  $\beta$  for AGOV and keeping  $Rt - U > R - I$  large enough to ensure that AGOV plays NE after GOV expropriates. Otherwise, the MNC might be tempted to repeat the cycle of finding a new challenging force to control the host country, hence, contributing to prolonging the internal conflict.

**Game under mixed strategies:**

Under mixed strategies, it is assumed that GOV will play NE with probability  $\rho_1$  if it is type H and with probability  $\rho_2$  if it is type O. The AGOV will play NE with probability  $\rho_3$  if it is type H and play E with probability  $\rho_4$  if it is type O.

The indifference condition between E and NE for GOV is stated in the next expression (10):

$$(Rt-U-A)(\lambda+\gamma)\alpha\rho_1 + (Rt-U-A)(\lambda+\gamma)(1-\alpha)\rho_2 = (R-I-U-A)(\lambda+\gamma)\alpha(1-\rho_1) + (R-U-A)(\lambda+\gamma-\Delta)(1-\alpha)(1-\rho_2)$$

The following expression (11) should hold for the reduction  $\Delta$  of the survival probability of GOV to keep it indifferent between NE and E:

$$\Delta = - \left\{ \frac{(Rt - U - A)[\alpha\rho_1 + (1 - \alpha)\rho_2] - (R - I - U - A)\alpha(1 - \rho_1)}{(R - U - A)(1 - \alpha)(1 - \rho_2)} + 1 \right\} (\lambda + \gamma)$$

Once again, the levels  $\Delta$  vary in the same directions as described for each variable identified under pure strategies, increasing with increasing values of  $R$ ,  $\alpha$ ,  $\lambda$ ,  $\gamma$  and decreasing values of  $I$  and  $t$ . In addition, under the context of mixed strategies, the value of  $\Delta$  is increased with lower levels of  $\rho_1$  and  $\rho_2$ , since these lower levels reduce the expected value of the GOV's returns under the NE alternative, requiring an increase  $\Delta$  to reduce the survival probability of GOV in the E alternative, hence, reducing the expected value of its expected returns under this alternative.

The achievement  $\Delta$  requires a level  $G$  by the MNC to meet the following expected return for the MNC to justify its investment decision in the host country:

$$[R(1-t)(\lambda+\gamma)-I]\alpha\rho_1 + I[\lambda+\gamma-1]\alpha(1-\rho_1) + [R(1-t)(\lambda+\gamma)-I](1-\alpha)\rho_2 + \{[R(1-t)\phi-I]\beta\rho_3 + [I\phi-I]\beta(1-\rho_3) + [R(1-t)\phi-I](1-\beta)\rho_4 - I(1-\beta)(1-\rho_4) - G\}(1-\alpha)(1-\rho_2) > 0 \tag{12}$$

Given the previous condition for the expected return of this investment, MNC has to spend the amount  $G$  according to the following expression (13) to overthrow GOV:

$$G < \frac{R(1-t)(\lambda+\gamma)[\alpha\rho_1 + (1-\alpha)\rho_2] + I[(\lambda+\gamma)\alpha(1-\rho_1) - 1]}{(1-\alpha)(1-\rho_2)} + \{R(1-t)[\beta\rho_3 + (1-\beta)\rho_4] + I\beta(1-\rho_3)\}\phi$$

The same relationships are kept between G and the different variables as previously described under pure strategies. In addition, higher values for G are related to higher values for  $\beta$ ,  $\rho_1$ ,  $\rho_2$ ,  $\rho_3$  and  $\rho_4$ , hence, a higher probability  $\beta$  for AGOV of being type H justifies a higher G by the MNC to displace GOV for a better alternative to improve the MNC's expected return, whereas higher probabilities for GOV and AGOV of playing mixed strategies more prone to NE through higher probabilities  $\rho_1$ ,  $\rho_2$ ,  $\rho_3$  and  $\rho_4$  encourage the MNC to increase its expenditure G to overthrow a GOV whose profile reveals a less frequent pattern of expropriations as well as in exchange for a more reliable AGOV.



## Conclusions

In general, the previous literature review showed that MNCs have been actively involved with the arms industry as a strategic resource to gain influence and competitiveness through non-market strategies in their efforts to enter and protect their investments in host developing countries under different types of authoritarian regimes that require the use of firepower as the main resource to keep control on these countries. This process involves the use of different strategies by MNCs to interact with the relevant players in their home countries and their arms-exporting allies as well as in the host country of their investments.

Within the context of their home countries, MNCs procure to gain bargaining power through different arrangements to concentrate beneficiary parties whose interests are aligned with those of the MNCs in their international investments. These arrangements comprise networking structures such as security think tanks gathering players from different economic sectors interested in developing bonds with the arms sector, as observed across several NATO countries as well as industrial conglomerates counting on the integration of the arms sector as a strategic one for the expansion of international operations into countries where the use of firepower is key for their ruling regimes.

On the other hand, the trend to a more multipolar world with new players in the arms industry poses an important moral risk when dealing with authoritarian regimes for investment purposes. This risk arises since the growing number of arms suppliers increases the options for these regimes to procure firepower for their continuity, reducing their concerns about any retaliation from specific arms-supplying countries. This context might foster opportunistic behaviour among those regimes to take actions such as expropriation of FDIs, especially investments related to the exploitation of key resources such as oil, mines, etc., that justify the entry attempts of MNCs into these politically unstable countries.

In general, the analysis of the strategic behaviour of MNCs in the context of these countries should consider their assessment under the Wilson-Lowy matrix to determine the suitability of their reliance on an allied arm industry as a political risk hedge to influence non-market actors in developing countries under authoritarian regimes whose control on the State depends on their firepower rather than on popular support from civilians. This reliance might be more effective in increasing the bargaining power of specific armed factions under a more diffuse context of potential beneficiaries of firepower for social control purposes.

This article proposed strategic approaches for MNCs, based on game theory, to counteract this opportunistic FDI expropriation trend by entering into alliances with key arms providers to these authoritarian regimes that contribute to their survival probabilities. MNCs should procure credible dissuasive strategies aimed at reducing these survival probabilities to discourage threats to their investments in these countries. A credible dissuasive strategy should comprise any kind of feasible compensation to arms suppliers to restrain their arms transfers to these regimes at the lowest possible loss to these suppliers. The use of countertrade deals engaging MNCs in the trading of commodities from arms-importing countries as payment methods for arms sales from arms producers represents a key opportunity for a credible partnership between MNCs and arms producers. The assessment by MNCs of this compensation should also take into account the likelihood of their future businesses in the host country upon the displacement of opportunistic governments through the reduction of their survival probabilities. This perspective on the expected returns from future businesses should be also taken into account when MNCs plan to hire PMCs to protect their operations and to feed the firepower of armed factions in conflict within host countries in exchange for the protection of their investments, however, this alternative should consider a trade-off with its effect on the MNC's reputational risk for its involvement in regime changes that can be condemned by the international public opinion.

The previous strategic approaches are aimed at providing base frameworks supported by available cases describing deals between MNCs and arms producers engaged with countries under authoritarian regimes, which can be clustered into the two previous analytical cases discussed in this article considering alliances between MNCs and arms producers as well as between MNCs and PMCs to influence the survival of authoritarian regimes. Further research in the area is needed to incorporate new elements into the previous analysis considering the degree of imperfect information among the players in this business context. Most research based on business cases is recommended for this topic as most deals involving arms transfers are kept secretive, with little publically available data for empirical research.

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## Appendix

**Appendix 1:** Cases of investment disputes reported by the ICSID and the normalized H-H Index of international arms exporting countries during the period 1992- 2021 according to SIPRI.

Year	Cases Registered under the ICSID Convention and Additional Facility Rules	H-H Index of International Arms Exporting Countries	Equivalent number of arms-exporting countries based on the H-H Index
1992	2	0.34	2.91
1993	1	0.30	3.34
1994	3	0.26	3.79
1995	3	0.26	3.81
1996	3	0.23	4.31
1997	10	0.27	3.69
1998	11	0.33	3.04
1999	10	0.23	4.26
2000	12	0.21	4.79
2001	14	0.17	6.00
2002	19	0.18	5.64
2003	31	0.16	6.31
2004	27	0.19	5.23
2005	27	0.16	6.23
2006	23	0.14	6.97
2007	37	0.14	7.16
2008	21	0.15	6.78
2009	25	0.13	7.71
2010	26	0.16	6.40
2011	38	0.17	5.99
2012	50	0.18	5.52
2013	40	0.16	6.33
2014	38	0.16	6.10

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2015	52	0.16	6.11
2016	48	0.15	6.65
2017	53	0.18	5.60
2018	56	0.19	5.21
2019	39	0.21	4.87
2020	58	0.17	5.76
2021	66	0.20	5.05

Source: ICSID (2022), SIPRI (2022)