

ERF Policy Brief

How Do Conflicts Affect Firms in the MENA Region?

Daniel Mirza and Chahir Zaki

About the authors

Daniel Mirza is a Professor, Department of Economics, Orléans University.

Chahir Zaki is an Associate Professor, Faculty of Economics and Political Science, Cairo University.

In a nutshell

- *The Middle East and North Africa (MENA) region witnessed several types of conflicts during the last decade. While the macroeconomic impacts have been well documented, less evidence is available regarding the effect of conflict at the microeconomic level. This brief analyzes how firms are affected by different types of conflicts, especially small and medium firms.*

Overview of Conflicts in the MENA region

“War is development in reverse” (Collier et al. 2003) as they are associated to forced migration, destruction of infrastructure, deterioration of institutions, less investments and a declining economic growth. While the macroeconomic impacts have been well documented, less evidence is available regarding the effect of conflict at the microeconomic level, especially for the MENA region, being one of the regions that is most affected by conflicts. In fact, it accounts for around 20% of world conflicts.

To analyze the different types of conflicts that took place in the MENA region, Mirza et al. (2020) rely on the Armed Conflict Location & Event Data Project (ACLED) database and the Geographic Information System (GIS) and ArcMap¹ 10.6 software to identify the exact location

¹ ArcMap is the main component of Esri’s ArcGIS suite of geospatial processing programs, and is used primarily to view, edit, create, and analyze geospatial data. ArcMap allows the user to explore data within a data set, symbolize features accordingly, and create maps.

of each conflict. This dataset has been merged with the World Bank Enterprise Surveys that are available for six non-oil exporters for whom data from the (Egypt, Jordan, Lebanon, Palestine, Morocco and Tunisia). It is important to note that the ACLED dataset classifies conflicts into four main types: battles and explosions, protests and riots, violence against civilians, and strategic developments.²

² The definition of the events are as follows: (i) battles are violent clashes between at least two armed groups. (ii) violence against civilians involves violent attacks on unarmed civilians. Explosions/remote violence refers to events where an explosion, bomb or other explosive device was used to engage in conflict. They include one-sided violent events in which the tool for engaging in conflict creates asymmetry by taking away the ability of the target to engage or defend themselves and their location. (iii) riots are a violent demonstration, often involving a spontaneous action by unorganized, unaffiliated members of society. Protests are non-violent demonstrations, involving typically unorganized action by members of society. (iv) Strategic developments include incidences of looting, peace-talks, high-profile arrests, non-violent transfers of territory, recruitment into non-state groups etc.

These countries were chosen for two reasons. First, compared to oil exporters in the MENA region, these countries are more diversified, export more manufactured products that rely on imported inputs and hence are more likely to be affected by conflicts. Second, this sample serves the comparison between the effects of different types of conflicts on different countries. While most of the countries experienced protests and riots (namely Morocco, Tunisia, Lebanon and Jordan), some of them witnessed more serious battles and explosions (Egypt, Palestine and to a lesser extent Lebanon) or violence against civilians (Palestine followed by Egypt) over the period of the analysis (2010-2019) as it is highlighted in Figure 1.

Conflicts and Firms Performance: Identifying the Channels

Generally, any type of conflict is likely to exert a negative effect on firms' performance through several channels.

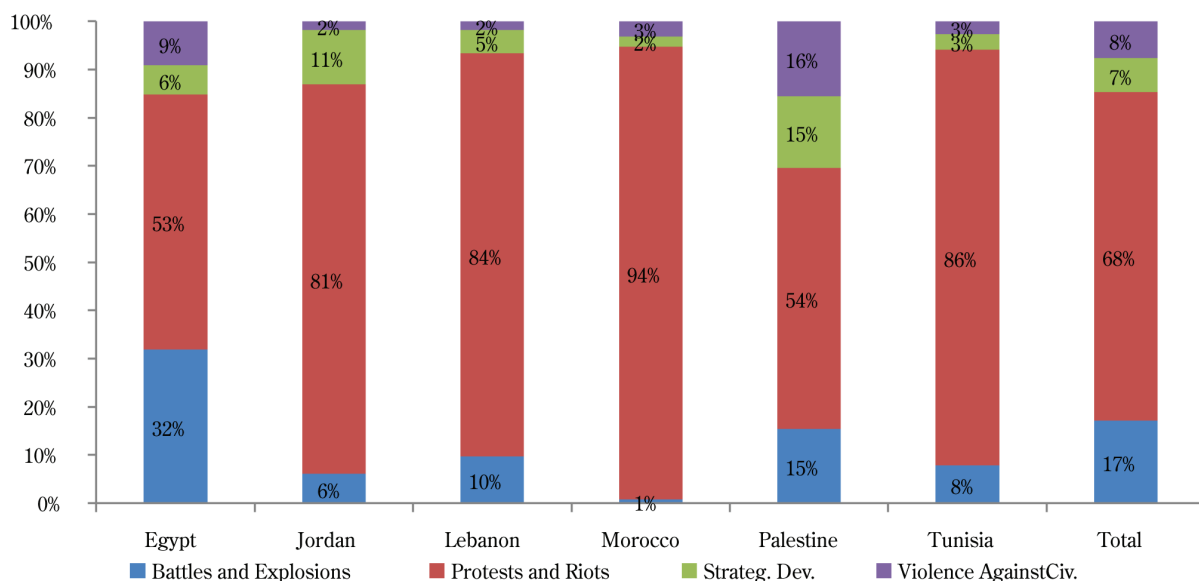
First, conflicts increase uncertainty that affects both supply and demand. At the supply level, factors of production are significantly affected. For capital, more uncertainty weakens the response of investment to demand leading to a decrease in capital accumulation (Guiso and Parigi, 1999). Moreover, risky events are expected to affect the movement of people (workers, consumers) and decision making to hire. The provision of intermediate inputs, and especially imported ones, also experiences several disruptions. It is important to note also that security measures set at the level of the

firm may have increased the costs of production leading to a reduction in profitability of the firms. At the demand level, more uncertainty due to the events increases forced savings and precautionary saving both resulting into less consumption, which affects the sales of the firms together with their expansion plans. A firm's high exposure to the location of the conflictual events should then be clearly more affected, through these shocks. Second, conflicts destroy the country's physical infrastructure, which negatively affects in turn, supply chains, inputs transportation from origin to plants and products transport from plants to markets. Obviously, with infrastructure destruction, operating costs increase due to supply disruptions of intermediate inputs, electricity and other utilities (Klapper et al., 2013). Yet, it is important to note that the effect of such an infrastructure destruction depends on the exposure of the firm to that infrastructure.

Thus, Mirza et al. (2020) construct a measure of exposure to an event that determines the proximity of each region (where a firm is located, thanks to the information provided in the WBES) to each observed event (from the ACLED dataset). In the same vein, they construct a second variable, namely the closeness to exposure of major infrastructure installations that shows whether the firms under study are being close to major infrastructure (roads, airports and ports) which could be, in turn, prone to conflicts.

Against this background, it is obvious that conflicts exert a negative effect on firms. Figure 2 provides a preliminary evidence through the negative correlation between the

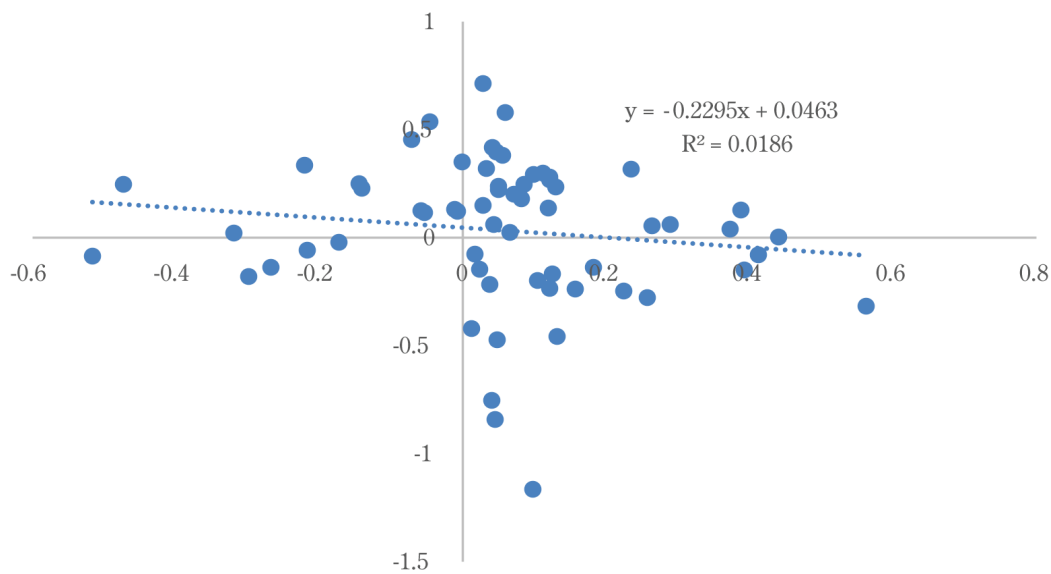
Figure 1: Distribution of Conflict events by Country



Source: Constructed by the authors using the Armed Conflict Location & Event Data Project (ACLED) database.



Figure 2: Correlation between Sales and Exposure to Conflictual Events



Source: Constructed by the authors.

2-years change in sales and the 2-years change in the exposure to conflictual events.

Finally, from a development perspective, conflicts also create a development gap between countries/regions within a country/region that have experienced any conflict and those that have not, which worsens inequality within and between countries.

On the Heterogeneous Effects of Conflicts

Although conflicts have an overall negative effect on the economy, some heterogeneity is observed at the microeconomic levels.

First, in terms of the types of conflicts, while battles and explosions negatively affect sales and productivity, violence against civilians and protest and riots have a positive impact on these measures of performance. One potential explanation is that adjustments costs might have been transmitted to employees through a reduction of their number at the firm level coupled with an increase in the productivity of those who stay in their job.

Second, when firm size is taken into consideration, one observes that the effect of explosions and battles is mainly observed for small and mid-sized firms. Indeed, when exposure of firms to battles and explosions increases by 10%, labor productivity decreases by 1.2 to 2.2% for small and mid-sized firms. The effect does not appear to be statistically significant for large firms, however. This is chiefly due to the fact that larger firms are more

able to absorb the shock than smaller ones for several reasons. Indeed, they can diversify their resources; have an a priori healthier financial situation; can more easily borrow from the banks; and hence, are more resilient.

When it comes to infrastructure exposure to protests and riots, the latter seem to be negatively affecting firm sales when they are located near seaports. It is worthy to note that importers are more negatively affected by such an exposure. In the same vein, the interaction term with importers for airports being prone to protests and riots events, happen to be negative and statistically significant.

Tailoring Policies for Conflict-Affected Environments

Blumenstock et al. (2018) show that most of the usual policy recommendations for private sector development are not adequate in conflict-affected environments. This is why such a peculiarity has to be taken into consideration in policy design at both national and multilateral levels.

First, it is clear that firms' performance is chiefly affected through the channel of infrastructure. Obviously, this can lead to undelivered imported and domestic inputs, difficulties in delivering products to both domestic and exports markets and hence disruptions in production. This is why whether rebuilding infrastructure should be the first priority of the state or various international donors.



Second, given that the medium firms primarily bear the cost of conflicts, the latter obstruct their expansion and reinforce the missing middle hypothesis. In other words, conflicts by negatively affecting medium firms' performance might end up leading to a bimodal distribution of small and large firms on the two extremes. This is why political stability is vital to overcome this issue given that more than 90% of firms in the MENA region are either small or medium ones. From a development lens, supporting these firms in post-conflict regions is indispensable to generate jobs in the short term and reduce poverty.

Third, as mentioned before, importers of intermediate inputs bear an additional cost because of their exposure to conflictual events. Thus, political stability is important for the exports' competitiveness of the MENA region since these exports heavily rely on imported inputs. It is important also to note that, even if conflicts do not last long, they can have long-term impacts on firms since reconstruction of infrastructure is lengthy and very costly.

Finally, and as a prerequisite for the aforementioned recommendations, reconstruction in conflict-affected regions requires building new state institutions and a new economy. At the political level, "new state institutions" refers to an inclusive political regime (through strengthening civil society, constitutional reforms, minorities' engagement, and protection) that is crucial to sustaining peace and conflict prevention. At the economic level, reconstruction must be equitable and equally led by both the state and the private sector.

Further reading

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- Mirza, D and T. Verdier. 2008. "International trade, security and transnational terrorism: Theory and a survey of empirics," *Journal of Comparative Economics*, 36, 179–194.
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ERF at a Glance: *The Economic Research Forum (ERF) is a regional network dedicated to promoting high-quality economic research for sustainable development in the Arab countries, Iran and Turkey. Established in 1993, ERF's core objectives are to build a strong research capacity in the region; to encourage the production of independent, high-quality research; and to disseminate research output to a wide and diverse audience. To achieve these objectives, ERF's portfolio of activities includes managing carefully selected regional research initiatives; providing training and mentoring to junior researchers; and disseminating the research findings through seminars, conferences and a variety of publications. The network is headquartered in Egypt but its affiliates come primarily from different countries in the region.*

Contact Information

ERF Office

Address: 21 Al-Sad Al-Aaly St. Dokki, Giza, Egypt

PO Box 12311

Tel: 00 202 333 18 600 - 603

Fax: 00 202 333 18 604

Email: erf@erf.org.eg

Website: <http://www.erf.org.eg>

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