

Surviving Firms of the Syrian Arab Republic

A Rapid Assessment

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Abstract

This paper details the results from the first comprehensive survey of private firms across major urban areas in the Syrian Arab Republic—including Aleppo, Homs, Hama, Latakia, and Damascus—since the conflict began in 2011. This builds on the World Bank’s Enterprise Survey from 2009 and attempts to survey each of the 508 firms from 2009 again. The survey highlights the major challenges facing firms in Syria today, such as access to electricity, fuel, and water. Yet, loss of workers, managers, and supply chain relationships are also notably severe. Rebuilding the social and human capital of Syria may be even more difficult than the bricks and mortar. The paper also identifies the ways firms have been affected in their prices, sales, supply chains,

taxation, and costs as well as how they have adapted in financing and employment. These constraints and impacts are also analyzed at the subnational level and across sectors. Firms in Aleppo stand out for their uniquely difficult challenges and responses that are sometimes at odds with the rest of the country. Finally, the paper analyzes firm exit from 2009 to 2017 and finds that higher productivity firms from 2009 were more likely to survive, except in Aleppo where the reverse holds. The paper hypothesizes that productive firms facing the particularly severe destruction in Aleppo may have made a different calculation compared with productive firms elsewhere: to use their capabilities to leave rather than to use their capabilities to weather the storm.

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Surviving Firms of the Syrian Arab Republic: A Rapid Assessment

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Surviving Firms of the Syrian Arab Republic – A Rapid Assessment¹

Background

In early 2017 the World Bank undertook an Economic and Social Impact Assessment of the conflict in the Syrian Arab Republic. This resulted in the report *The Toll of War: The Economic and Social Consequences of the Conflict in Syria*. As part of the research initiated during this work, a rapid survey of Syrian enterprises was commissioned to understand the experiences and challenges of the private sector in Syria, with the intent of contributing to the World Bank's ongoing efforts to understand the socio-economic effects of the conflict in Syria.

The results of this survey are detailed in this paper and represent, as far as we know, the only countrywide survey of Syrian enterprises since the crisis began. The survey was conducted by phone, using as a sample the list of firms surveyed in the World Bank enterprise survey conducted in 2009 which included 508 manufacturing and services enterprises in six areas of the country: Aleppo, Damascus city, Damascus countryside, Hama, Homs, and Latakia.

Of the 508 firms surveyed in 2009, 203 - or 40% - could not be reached at all. This paper analyzes the patterns emerging among those missing firms, as well as the surviving firms, and discusses what conclusions may be drawn from the data collected on their problems, constraints, and current activities.

This paper examines the primary effects reported by businesses as a result of the conflict. Establishing basic services like electricity, fuel, water and gas emerge as key constraints in most of Syria. However, the bigger challenge that emerges from this study is the devastating loss of life and massive migration of people. Businesses across Syria report loss of skilled workers, managers, and unskilled workers as well as supply chain relationships as a ubiquitous effect of the war. The key conclusion of this analysis is that the damage to social and human capital is significant, and rebuilding that social and human capital is likely a greater challenge than the bricks and mortar.

Discussion of the sample, methodology, and missing firms

It was extremely challenging to conduct a firm survey in Syria in early 2017 due to the ongoing insecurity across the country. For this reason, the survey was conducted by phone. The survey was designed to be completed in approximately 30 minutes and the questions focused on changes that firms have experienced since the beginning of the crisis in 2010. The questions covered the following topic areas: major problems and constraints to firms, sales, supplies and costs, finance, and employment. (See Annex B for the questionnaire.)

The survey was designed as a follow-up to the 2009 Enterprise Survey of Syria. The 2009 survey included 508 firms and the 2017 survey attempted to re-survey all 508 firms which were surveyed in 2009. Table 1 below provides a breakdown of the response outcomes for

¹ This paper and the supporting analysis was undertaken by Nabila Assaf, Kinley Salmon, and David C. Francis based on a survey conducted in April and May 2017.

the 508 firms.² As the table shows, it was not possible to reach 203 firms at all. On the other hand, contact was made with 305 firms. Of these 305 firms, 60 reported that they were permanently closed while 23 reported that they were temporarily closed. These firms did not answer the rest of the survey. The remaining 222 firms were additionally asked explicitly if they were currently operational and opening their doors or producing. Another 62 responded no to this question and did not complete the rest of the survey. This left 160 firms that were reached and are currently operational. These 160 firms were asked all the questions in the survey and serve as the basis for the analysis below.³

Table 1: Status of firms when contact attempted in 2017

Surveyed in 2009	508
Attempted in 2017	508
Not reached	203
Temporarily closed	23
Permanently closed	60
Working	222
Of these, operational and fully surveyed	160

There were a range of other challenges due to resource constraints and the nature of conducting a survey in a conflict affected country. A small pilot of 10 successfully completed surveys (from 32 attempted calls) was conducted in late March. Calls for the full survey began and were completed in April 2017. The pilot was done to try identify and, where possible, address implementation challenges. However, difficulties remained in the final survey. First, oversight of the survey firm by the World Bank was only conducted remotely. Supervision occurred through daily update email exchanges on survey progress, audits of the first 10 pilot surveys through scans of physical copies of the survey, and regular calls and video meetings with the survey firm and enumerators. Nevertheless, in-person supervision would have been preferable. The main concern is whether questions were asked and coded in a consistent manner by all enumerators. The lack of in-person monitoring made this harder verify, although its importance was repeatedly impressed upon the survey firm.

A second challenge was that the use of a phone survey resulted in reluctance by respondents to answer some questions. For example, the survey firm reported a reluctance to answer financial questions over the phone due to privacy concerns. Some adjustments were made to the questions after the 10 completed surveys pilot to try to improve responsiveness. However, on financial questions – as well as to a lesser degree on other questions – many firms still chose to respond “I do not want to answer” or “don’t know.” This limited the sample size for analysis on these questions. Finally, in a few cases the survey firm also had to call back the firm for a second time to complete the survey.

The 160 operational firms surveyed in 2017 are compared to the 508 firms surveyed in 2009 in Table 2 in terms of size, region and sector. There has been very little change in terms of the split of the sample by sector. However, large firms are a smaller share of the sample in

² A more detailed breakdown is provided in Annex B with details of the size, sector, and region of all firms targeted, reached, closed, working, and operational.

³ Note that not all of the 160 firms answered every question, so statistics are often drawn from smaller samples, sometimes too small to draw conclusions, in which cases the results are not reported here.

2017, down to 16 percent from 24 percent, while medium firms represent a greater share and small firms have increased in share slightly. The biggest change in the sample has come in the location of the firms. Aleppo was nearly 19 percent of the sample in 2009, in 2017 it was just 9 percent. Damascus has increased from 42 percent of the sample to nearly 63 percent. Homs has fallen from 11 percent of the sample in 2009 to 6 percent of the sample in 2017.⁴

Table 2: Comparison of 2009 sample with 2017 sample by location, size, and sector

	Frequency 2009	Frequency 2017	Percent 2009	Percent 2017
Total Operational	508	160	100	31
Location	Frequency 2009	Frequency 2017	Percent 2009	Percent 2017*
Aleppo	95	15	18.7	9.4
Damascus	213	100	41.9	62.5
Hama	42	16	8.3	10.0
Homs	56	9	11.0	5.6
Lattakia	45	20	8.9	12.5
Damascus Country	32	0	6.3	0.0
Missing	25	0	4.9	0.0
Total	508	160	100	100
Size	Frequency 2009	Frequency 2017	Percent 2009	Percent 2017*
Small	184	61	36.2	38.1
Medium	202	73	39.8	45.6
Large	121	26	23.8	16.3
Missing	1	0	0.2	0.0
Total	508	160	100	100
Sector	Frequency 2009	Frequency 2017	Percent 2009	Percent 2017*
Manufacturing	349	108	68.7	67.5
Services	148	50	29.1	31.3
Others	11	2	2.2	1.3
Total	508	160	100	100

* The percentages provided in these sections are of the 160 operational who were fully surveyed.

The above information also allowed us to generate a rate of exit for firms by size, sector, and location. In this survey in Syria in 2017 it was not possible to contact 203 of the firms, despite attempts to do so. When considering exit rates this raises the question of what to do with these firms: have they exited or are they just not contactable? We provide exit rates in a range with the “restricted” lower bound simply omitting uncontactable firms rather than assuming they exited and the “unrestricted” upper bound assuming uncontactable firms exited the market. This gives an overall exit rate for Syria of between 27.2 percent and 56.3

⁴ 12 firms that were in 2009 listed as in Damascus countryside were not able to be reached, two were temporarily closed, and two permanently closed. The remaining 16 reported that they were working but only 12 reported they were currently operational, however, these 16 firms no longer listed Damascus countryside but instead Damascus. Though not verified, this may be due to a change in the manner in which questions were asked rather than a shift in location of the firms.

percent. We include exit rates for surveys in the Republic of Yemen and the Arab Republic of Egypt in Table 3 below for comparison. These show that Syria's restricted exit rate is relatively similar to the Republic of Yemen's and Egypt's which is surprising given both the conflict in Syria and the longer time between surveys. The unrestricted rate is, however, higher in Syria than the comparators which suggests it is likely that a large percentage of the unreachable firms in Syria really have exited the market and therefore the unrestricted upper end of the range is more likely to be accurate for Syria. Table 3 provides exit rates for Syria broken down by sector, region, and size for both the restricted and unrestricted models. As per the above discussion, the highest exit rate is for firms in Aleppo. Small firms were also particularly likely to exit.

Table 3 Exit Rates in Syria and Comparators

	Restricted(a)	Un-restricted(b)
Syria (2009-2017)	27.2%	56.3%
Yemen (2010-2013)	33.1%	44.2%
Egypt (2013-2016)	23.8%	27.9%
Syria (2009-2017)		
Manufacturing	28.0%	56.4%
Other Services	25.7%	53.6%
Retail	25.0%	61.7%
Damascus	17.6%	48.1%
Aleppo	66.0%	82.1%
Hama/Homs/Lattakia	23.5%	54.5%
Small (<20 emp.)	30.2%	64.0%
Medium (20-99 emp.)	29.8%	57.3%
Large (100+ emp.)	19.8%	43.0%

Un-weighted.

(a) Restricted omits those firms that were unreachable

(b) Un-restricted considers unreachable firms as exiting the market

Beyond these readily observable characteristics we also considered the relation between firm productivity in 2009 and exit in 2017. These regressions largely found results in line with expectations: larger and more productive firms are less likely to exit.⁵ This result seems to hold in Syria despite the conflict, however, there are some exceptions. In Aleppo, more productive firms were instead more likely to exit, possibly a sign that these firms were more able to be footloose and leave business altogether or move their production elsewhere. For example, in Aleppo, using an unrestricted model, a firm in the 75th percentile of productivity in 2009 is 12 percentage points *more likely* to exit than a firm in the 25th percentile of productivity in 2009. Productive firms facing the particularly severe destruction in Aleppo may have made a different calculation to productive firms elsewhere that likely faced slightly less severe circumstances: to use their capabilities to leave rather than to use their capabilities to weather the storm.

⁵ Regression tables are included in Annex A.

There are different possible explanations for these changes in the representation of firms in the sample by location, and to a lesser degree size. For example, telephone communications outside of Damascus may be less reliable than within Damascus. The level of effort that enumerators exerted to reach firms may have varied by location. Or, the effects of the conflict had a nonuniform effect on firms in different parts of the country. The disproportionately small representation of Aleppo firms in the 2017 sample is consistent with reported widespread damage to the city and nearby industrial zones – remote sensing data collected for the Syria Economic and Social Impact Assessment show over four out of five of the industrial zones outside Aleppo had over 67% damage. There simply may be fewer firms in Aleppo to survey now, or perhaps they are just harder to reach by phone. The reduced representation of large firms may indicate that larger firms face greater challenges maintaining their operations in conflict, perhaps due to more extensive and complex supply chain relationships, or it could simply be sample variation. In the absence of a recent census it is not possible to know for certain. However, at the very least, the survey is still of interest for what it is: a survey of 160 firms in Syria in 2017.

Greatest challenges facing surviving firms in Syria

Across the country, service interruptions, loss of employees, and breakdown of supply chains are the greatest challenges facing Syrian firms (Figure 1). Firms were asked to rank the extent to which certain factors constitute a constraint or problem for this business – from not at all to severe – from among factors in a range of categories.⁶ They were also asked to cite the single greatest category of obstacle facing them at this time. The results are summarized below.

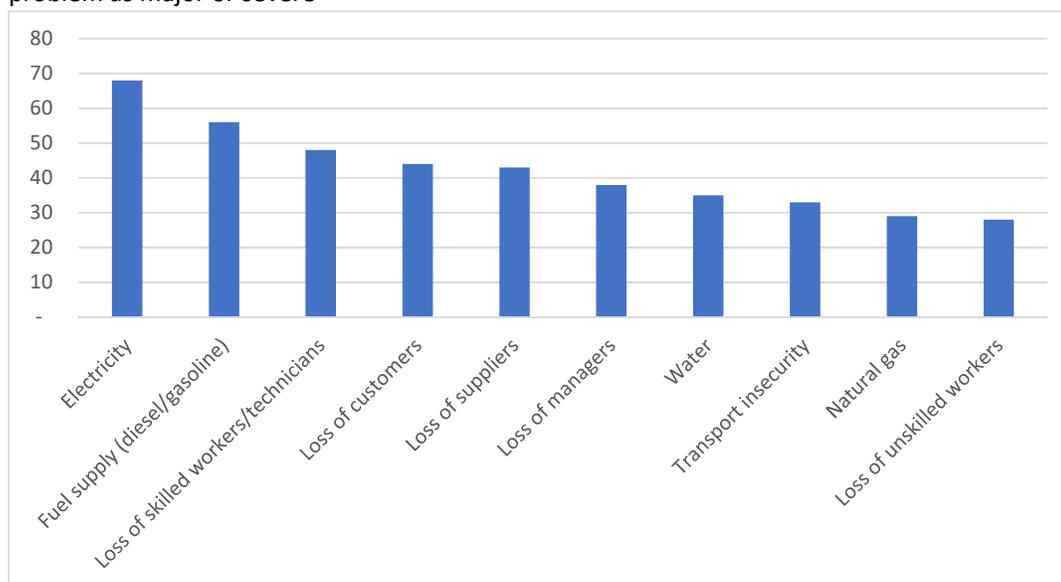
The intermittent supply of electricity and fuel generally constitute the greatest challenges for Syrian firms, with 67.5 percent of firms citing electricity and 56.0 percent fuel supply interruptions as major or severe problems, the highest of all reported problems across all categories. In the 2009 Enterprise Survey 57.5 percent of firms rated electricity as a major or very serious constraint so while this problem was even larger in 2017 it was already a major issue in Syria and was exacerbated by the crisis. Water and gas supply were also frequently reported, with around one-third of firms citing these as major problems. Water was cited as a major or very serious constraint in 2009 by 19.3 percent of firms in Syria so this has increased significantly. Finally, in 2017 telecommunications and waste collection were not frequently reported (16 percent and 8 percent respectively).

Reflecting the tragic human cost of the conflict, firms frequently report a loss of employees, with nearly half of all firms reporting the loss of skilled workers as a major or severe problem. In addition to the 48.4 percent of firms citing loss of skilled workers, 37.7 percent also cited loss of managers as major or severe problem while loss of unskilled workers was cited by 28.2 percent of firms. These were 6th and 10th respectively of a list of 25 potential

⁶ The categories are: service interruptions (electricity, fuel, water, etc.), physical damage and insecurity (damage to premises, insecurity in our around premises, etc.), transport problems (damage to intra-city or inter-city roads, inaccessibility due to checkpoints, closures), loss of customers or suppliers, loss of employees, finance problems, business service problems (customs, permits, corruption), or other. See Annex B for details in the questionnaire.

problems. This is a reflection of the tragic human impact of the conflict, including loss of life and displacement.

Figure 1: Ten most cited problems rated as “major” or “severe”, percentage of firms citing problem as major or severe



The frequency with which loss of suppliers and loss of customers were cited suggest a collapse of the supply chains and networks which are crucial to a functioning economy. Over 40 percent of firms reported loss of customers as well as loss of suppliers as major problems. This is consistent with experience in fragile contexts which has highlighted the destruction of supply chains and trust as critical factors in the decline of business activity in such contexts.

Asked about the single greatest category of obstacles to their business, service interruptions and loss of employees are reaffirmed as being the greatest challenges, but physical damage and insecurity also emerges as a major issue (Table 4). Service interruptions (which included fuel and electricity) were the most cited as the single biggest constraint with 36.7 percent of firms choosing this category. Loss of employees collectively was the second highest category with 15.8 percent of firms choosing it, but physical damage and insecurity now emerges as the third most cited obstacle (15.2% of firms.). Rebuilding and reestablishing basic services like electricity will not be easy, but the bigger challenge facing Syria’s local enterprises is likely to be restoring security and recovering from the devastating loss of life and massive migration of people.

Table 4: Top Obstacles facing firms

Service Interruptions	all	36.7%
Loss of Employees	all	15.8%
Physical Damage and insecurity	all	15.2%
Loss of Customers/Suppliers	all	13.9%
Transport Problems	all	8.9%
Government to Business Service Problems	all	5.7%
Finance Problems	all	1.9%

Other

all

1.9%

There is evidence that some firms have taken action - such as relocation or adjusting their operating hours – as part of their coping mechanisms. Strikingly, 17 percent of all firms reported they had moved at least some of their operations to elsewhere within Syria – anecdotally it has been reported that many firms moved to Latakia. In addition, 7 percent of firms surveyed reported moving some of their operations abroad with Turkey, Jordan, and Egypt being reported as destinations. In addition, 49.2 percent of firms report reducing their hours since before the crisis although 22 percent have increased hours, possibly to make up for lost earnings in regular hours. Box 1 draws on a separate survey conducted by the World Bank of Syrian diaspora who had left Syria since the conflict began to highlight some of the characteristics of businesses that left.

Box 1: Online Survey of Syrian Diaspora Businesspeople

The World Bank also conducted an online survey of Syrian diaspora businesspeople using the snowball sampling method to contact individuals between January and April 2017. This sample included 63 businesspeople who left Syria since the conflict began in 2011 and sheds some light on their characteristics, concerns, and intentions. Answers are self-reported and not all 63 answered every question and percentages are calculated as a share of those who responded to the individual question.

In terms of basic characteristics, almost half of the respondents selected 45 to 64 as their age range and 90 percent were male. Respondents were well qualified, with 41 percent having a post-graduate degree as their highest level of education and another 41 percent holding an undergraduate degree as their highest level. The respondents came from a wide range of Syrian cities, with approximately 40 percent naming Damascus as their city of origin and 19 percent naming Aleppo. However, 54% previously had their major business establishment in Damascus, Damascus suburbs or Daara.

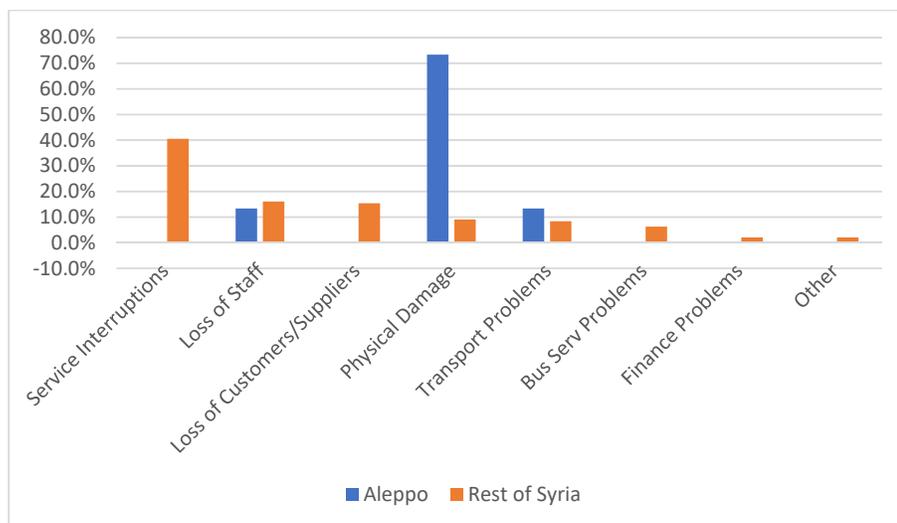
The current locations of residence for these businessmen who had left Syria was varied: 22 percent were in Jordan, 16 percent in Egypt, 13 percent in Turkey, 11 percent in France, 8 percent in the United Arab Emirates, and the remainder between Germany, Lebanon, Saudi Arabia, the United Kingdom, Austria, the United States and Canada. Respondents provided a wide variety of answers to the question of their legal status in their host country, hinting at the complexity of life for the Syrian diaspora. Similarly, 54 percent believed they faced unique obstacles to investing and doing business as a Syrian national in their host country with visa issues cited as a problem in conducting business for over three-quarters of them. Getting an investment residency was also a major issue. Perhaps in part as a result, 81 percent said that they planned to return to Syria in some way once security improves.

Many remain actively involved with the Syrian community. Almost all support displaced Syrians in some way through things like employment, education, or financial support. Fifty-six percent of the respondents are specifically involved in various forms of skills transfer, either back in Syria or in host countries, through mentoring, training, and education. Connections to home also remain strong: 40 percent continue to support Syrian livelihoods inside Syria in some way, including through investments.

Regional, sector, and size variations on major problems⁷

Aleppo stands out as a region in Syria where firms face particularly challenging circumstances. The large majority of firms (over 70 percent of firms) in Aleppo report nearly *all factors* as major or severe problems. In comparison, firms in the rest of Syria only report major or severe problems at high rates (over 50 percent of firms) for electricity or fuel. Aleppo's results were so much more severe that for all 25 problems the difference between Aleppo's results and the rest of Syria was statistically significant.⁸

Figure 2: Single biggest constraint in Aleppo vs the Rest of Syria



Contrary to the rest of the country, in Aleppo, the single greatest category of obstacles cited by firms was physical damage and insecurity, which was cited by 73 percent of firms when asked for their single biggest category of issues. In the rest of Syria only 9.1 percent of firms cited physical damage and insecurity as their biggest single constraint. Instead, as already noted, service interruptions are the most cited constraint for the rest of the country with 40.6 percent of firms (i.e. excluding Aleppo).⁹ Figure 2 provides the full break down of the single biggest constraint for Aleppo compared to the rest of Syria.

Across several indicators, manufacturing firms report being affected by problems at higher rates than service firms, with significant differences on fuel (63 percent of manufacturing firms facing problems vs. 41 percent of service firms), loss of unskilled labor (35 percent to 14 percent), looting (31 percent vs. 13 percent), inventory losses (28 percent vs. 13 percent), physical insecurity (27 percent to 10 percent), and others.

There were relatively few differences in responses on constraints by firm size. Service interruptions were the biggest single constraint for all three size categories (small, medium, and large) while loss of employees and physical damage were also in the top three for all size firms with only slightly varying percentages of firms citing them. In the more detailed

⁷ All regional, sector, and size comparison statistics reported in the text are statistically significant at the 10% level or better, but footnotes are included with the specific statistical test results for each comparison.

⁸ At the 5 percent level or above.

⁹ Statistically significant differences at the 1% level.

questions on major or severe constraints there were relatively few statistically significant differences. Medium sized firms were likely to cite water as a major or severe constraint with 43.1 percent of firms citing it compared to 27.6 percent of other firms.¹⁰ Large firms were particularly concerned about loss of managers (53.7 percent) compared to small (45.0 percent) and medium (26.0 percent) firms.¹¹

The impact of the crisis on the supply chain: Sales and prices, supplies and costs

On average, surviving Syrian firms have lost at least half of their sales. Overall, 84 percent of firms reported that their domestic sales had decreased since before the crisis. The average change was a decrease of 49 percent. Of firms that export, 89 percent suffered a decrease, with an average change of a 64 percent reduction in exports. Closely related to this is the fact that 83 percent of firms reported a loss of key customers or contracts because of the crisis. In addition to these sales challenges, a strikingly high 58 percent of firms suffered losses from looting theft or vandalism since the crisis began.

Firms also changed the price of their goods significantly in response to the conflict. Fully 95 percent of all firms said they had raised their prices because of the crisis. Only 42 firms were willing to answer by how much they had changed their prices, but among those that replied, the average change is an estimated nominal 446 percent increase since before the conflict began in 2010. This is equivalent to a 24% nominal increase in prices annually. By comparison Jordan's annual inflation between 2010 and 2016 declined from 6 percent to below 0 and Turkey's inflation fluctuated between 6 and 8 percent per year. While this is a large hike in prices, it is perhaps not surprising given the extremely challenging context. A smaller share of firms in Aleppo (85.7 percent) and Hama (75 percent) report raising prices due to the crisis than in the rest of Syria where it is close to 97 percent of firms see Figure 3.¹² In Hama, in fact, 25 percent of firms reported *reducing* their prices due to the crisis.¹³ More research would be needed to draw conclusions from these results.

Strikingly, firms in Aleppo seem to have fared better than firms in the rest of the country with regard to exports. While still a high number of firms report less export activity, it is only 60 percent of firms in Aleppo that report to have decreased exports compared to 91 percent for the rest of Syria.¹⁴ This is surprising but perhaps plausible given the proximity to Gaziantep, and the anecdotal reports of firms having relocated operations to Turkey from Aleppo, so perhaps this represents trade associated with these cross-border business ties. Large firms (80 percent) are also somewhat less likely to report a decline in exports than small and medium firms combined (92.4 percent).¹⁵

¹⁰ Statistically significant at the 5% level.

¹¹ Statistically significant at the 10% level.

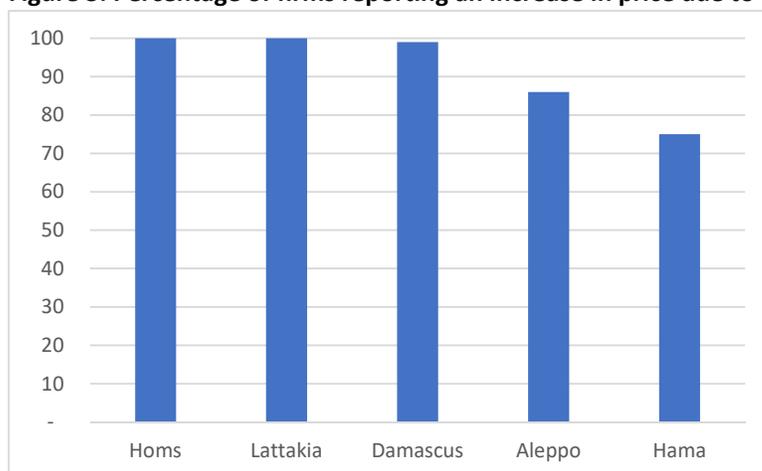
¹² Statistically significant for Aleppo at the 10% level and for Hama at the 1% level.

¹³ Statistically significant at the 1% level.

¹⁴ Statistically significant at the 10% level.

¹⁵ Statistically significant at the 10% level.

Figure 3: Percentage of firms reporting an increase in price due to the crisis by region



The conflict has substantially disrupted supplies of inputs to Syrian firms. Domestic supply disruptions were reported by 54 percent of firms and firms reported that on average it typically takes 27 days longer to receive supplies than it did before the crisis. Imported supplies are even more severely affected with 68 percent of firms reporting import disruptions. Firms reported that it typically took 63 more days to receive imported supplies than before the crisis. There were no statistically significant differences found between governorates on supplier disruptions although there was evidence that manufacturing firms faced longer delays (34.4 days) in receiving domestic supplies than service firms (12.5 days).¹⁶ Small firms also faced longer delays (40.3 days) than medium and large firms (on average 17.4 days).¹⁷

Supplies are not only disrupted and delayed, but they are also more expensive. The vast majority of firms, 93 percent, report their cost of supplies has increased since the crisis began. The average reported change in the cost of supplies, from 50 firms that responded to the question, was 436 percent since the beginning of the crisis in 2010 – a 23% increase in costs annually. This is consistent with the fourfold price increase reported by firms already noted above. Firms in Hama were the only outlier regionally as only 81.3 percent of them reported facing higher costs of supplies compared to 94.8 percent of firms in the rest of

¹⁶ Statistically significant at the 10% level.

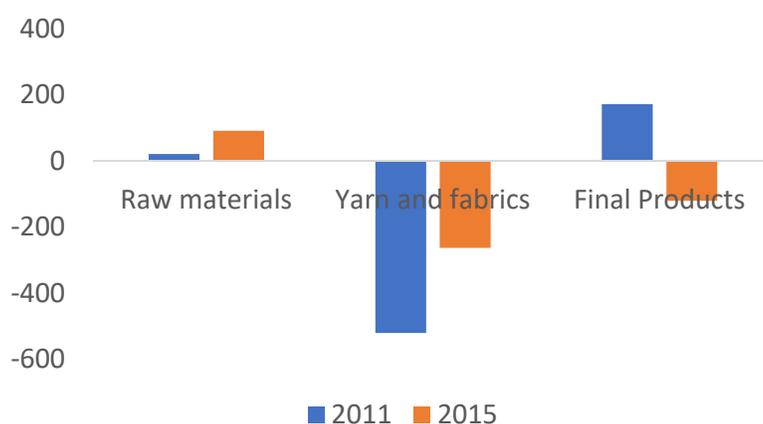
¹⁷ Statistically significant at the 10% level.

Syria.¹⁸ This is in line with the evidence above that fewer firms in Hama reported raising their own prices than in the rest of Syria.

Box 2: Case example of the garment sector

The garment sector has suffered a dramatic decline in the crisis. The evidence suggests production, not just exports, has largely collapsed. Prior to the crisis in 2011 Syria exported \$278 million of finished garments. This made Syria a net exporter of finished garments with net exports of \$172 million. Exports of finished garments collapsed to just \$38 million in 2015 while imports of final garments had increased by about 50% from \$106 million to \$159 million. This turned Syria into a net importer of finished garments to the tune of \$121 million. Imports of intermediate inputs (yarn and fabric) for garment manufacturers also declined dramatically from \$944 million to \$282 million suggesting major reductions in production for the domestic market too. In addition, the export of raw materials (cotton and to a lesser extent wool) has actually increased from \$31 million to \$98 million in 2015 suggesting that surplus raw materials are now exported rather than consumed by the domestic textile and garment industry. This is despite Syria’s cotton producing areas shrinking significantly during the crisis and a large share being under ISIS control according to the FAO.¹ The decline in exports of finished products, reductions in imports of intermediate goods, and increases in exports of raw materials are all consistent with overall production collapse in the garments sector. See Figure B2.1 for an overview.

Figure B2.1: Net exports in the garment sector, USD millions



Source: UN COMTRADE data

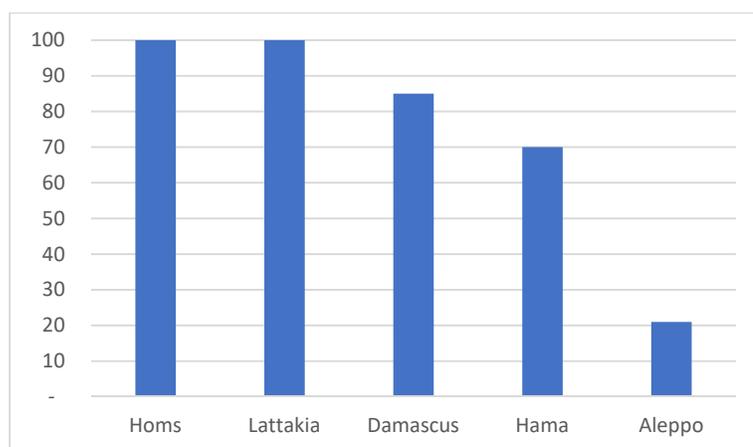
The decline in Syria’s garment exports is also consistent with local damage estimates. Aleppo was a key city for the Syrian textile and garment sector with a high concentration of textile and garment factories. Damage to industrial areas in Aleppo is extensive. Satellite imagery analysis commissioned by the World Bank suggests that 81 percent of the Shaykh Najjar Industrial Zone in Aleppo has suffered damage along with 70 percent of Ash-Shaqif Zone. Jibreen Industrial Zone also suffered damage to about 18 percent of buildings. In Shaykh Najjar Industrial Zone a breakdown of damage based on satellite imagery suggests 932 textile facilities were damaged since 2011, making it the single most affected sector in the zone.¹

Source: This box is taken from Chapter 3 of the Syrian Economic and Social Impact Assessment by the World Bank in 2017.

¹⁸ Statistically significant at the 5% level.

Many firms in Syria, with the exception of Aleppo, face rising costs in taxation and informal payments to the state or local authorities. Taxation spending and payments to the state or local authorities, either official or unofficial, have increased for 78 percent of all firms. Only 36 firms were willing to answer an amount of the change, but the average change reported was a 152 percent increase compared to pre-conflict levels. Firms in Aleppo, however, stand out for having a very different experience with regards to tax and unofficial payments. Fifty percent of firms in Aleppo reported a *reduction* in payments to the state or local authorities since the beginning of the crisis compared to just 1 percent of firms in the rest of Syria.¹⁹ Moreover, only 21 percent of firms in Aleppo reported an increase in payments to the state compared to 86 percent for the rest of Syria (Figure 4).²⁰ More research would be needed to draw conclusions from these results.

Figure 4: Percentage of firms reporting an increase in taxation or payments to authorities officially or unofficially, by region



Security spending by surviving Syrian firms also increased although this increase has not been universal. Overall, 44 percent of firms report increasing their security spending since the beginning of the crisis, while 52 percent report no change in spending and 3 percent report a decrease. The average change in spending was 117 percent. Increases in spending, however, were more common in Aleppo (80 percent of firms) than in the rest of Syria²¹ with increased spending notably less frequent in Latakia (26 percent of firms).²² As is typical in conflict affected contexts, large firms spend more on security, with 75 percent of large firms reporting increased security spending compared to just 38 percent of small and medium firms.²³

The impact on finance

¹⁹ Statistically significant at the 1% level.

²⁰ Statistically significant at the 1% level.

²¹ Statistically significant at the 1% level.

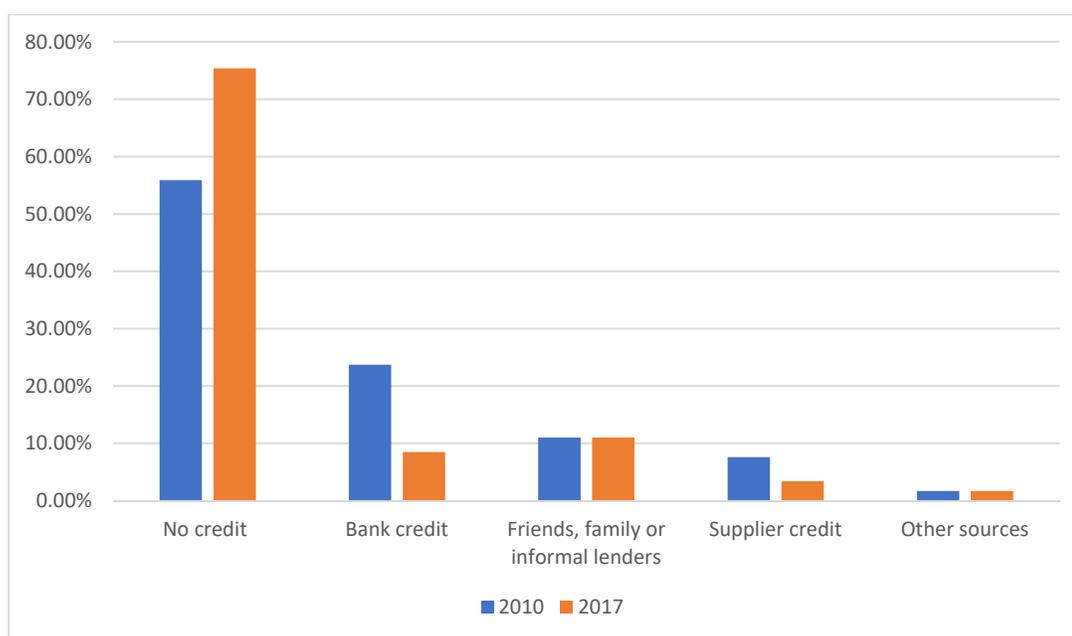
²² Statistically significant at the 10% level.

²³ Statistically significant at the 1% level.

The vast majority of firms report it is significantly more difficult to get credit since the crisis. For SMEs this response was universal (100% of firms), but even for large firms it was also pervasive (95.7 percent).²⁴ On access to foreign exchange, not surprisingly, every single firm that answered the question on ease of obtaining foreign currency reported that there were significant restrictions when compared to before the crisis.

There are striking changes in the source of credit since the crisis, with use of bank credit decreasing most. Figure 5 below compares pre-crisis to 2017 sources of credit as reported in the 2017 survey. Most notably, the use of bank credit has decreased from 23.7 percent before the crisis to just 8.5 percent in 2017. The use of supplier credit has also decreased from 7.6 percent to 3.4 percent. Most of this lost credit from banks and suppliers does not appear to have been replaced, instead the share without credit rose from 56 percent to 75 percent.

Figure 5: Sources of credit in 2010 and 2017



Firms largely use the credit they obtain for working capital. Fully 65 percent of firms report using it only for working capital, 31 percent use it for both working capital and investment, and just 3 percent using it for investments only. About 68 percent of firms have canceled planned investments in building, plant, or equipment due to this crisis. However, despite this, about 1 in 5 firms still report making some investments since the beginning of the crisis. There were no significant differences across region, sector, or size with regard to investments made or canceled.

The need for working capital is also heightened by a strong increase in delinquent or nonpaying customers. This is clearly a large problem as 67.5 percent of firms report that the share of delinquent customers has increased since the beginning of the crisis. This is a particularly big problem for medium sized firms where 80.6 percent of firms report an increase in delinquency and a smaller issue for large firms where 46.7 percent of firms

²⁴ Statistically significant at the 5% level.

report an increase.²⁵ The average change is a 9.2 percent increase in late or nonpaying customers.

The economy in Syria during the crisis is heavily cash based. Most firms, 72 percent of them, pay their suppliers in cash. This is particularly common in Aleppo where all firms reported that they paid in cash. It is also more prevalent among small and medium enterprises than among large enterprises where only 50 percent reported doing so.²⁶ Similarly, 91 percent of firms reported paying their employees in cash. Nevertheless, the vast majority of firms report having access to a bank branch although the response rate was very low on this question (for reasons we cannot explain).

The impact on employment

The crisis has also resulted in reduced employment levels in firms and difficulty for employees in reaching work. Three-quarters of respondents reported that the size of their workforce has decreased since the start of the crisis while 12 percent said that it had not changed and 12 percent reported an increase. Temporary workers do not appear to have filled the gap with only 10 percent of firms reporting they had increased their use of temporary workers. About 22 percent of firms report experiencing work stoppages in the last six months due to employees being unable to reach their place of work. Given the high number of firms reporting loss of workers as a major or severe obstacle, we may conclude that the reduction in employment in firms is to at least some degree, and possibly to a large degree, due to the human impact of the conflict, with loss of life and displacement severely affecting the supply of labor.

The number of workers in firms can be compared for each firm between 2017 and 2009 (as this same question was asked in both surveys). For the 160 firms that were surveyed in 2017, the average number of permanent full-time employees was 50.2 workers *in 2009*. By 2017 this had dropped to 23.2, a reduction of 54 percent. The reduction was more severe in Damascus with a 62 percent reduction and less severe in Latakia with a reduction of 44 percent.²⁷ Manufacturing firms saw a reduction of 54 percent while services firms were slightly lower at 51 percent.²⁸ Medium sized firms had the smallest reductions at 41 percent while small firms reduced by 61 percent and large firms had the largest reduction at 64 percent.²⁹

²⁵ Statistically significant at the 5% and 10% level, respectively.

²⁶ Significant at the 5% level.

²⁷ Both significant at the 1% level.

²⁸ Statistically significant at the 5% level.

²⁹ Statistically significant at the 1% level (small and medium firms) and 5% level (large firms).

Conclusion

This survey of Syrian businesses leaves little doubt that, like the rest of the country, businesses have been devastated. Supply disruptions are extensive, loss of employees and customers is dramatic and widespread, and interruptions in basic services like electricity are crippling problems. Firms in Aleppo have been especially hard hit on all fronts, and report strikingly more problems of physical damage and insecurity than the rest of the country. Many firms have been forced to close and of the 508 initially only 160 were confirmed to still be operational –many could not be reached, resulting in significantly fewer firms reporting back from Aleppo. Firms have responded to the circumstances in a variety of ways. Almost a fifth have also moved some of their operations within Syria and 7 percent to outside Syria. Hours have changed for most firms. Some have reduced hours, perhaps unable to operate longer, but almost a fifth have increased their hours to try to make things work. This is a testament to the resilience of business in the face of a devastating conflict.

The survey highlights that beyond the physical problems repairing physical damage and restoring service provision like electricity, there are a set of even more intractable challenges that are tied to the social and human impact of the conflict. Chief among them is the loss of human capital, a result of the tragic loss of life and large-scale migration of people, with businesses across Syria reporting loss of skilled workers, managers, and unskilled workers alike. Similarly, rebuilding the relationships that form the basis of supply chains, the business networks that allow credit to flow, and the trust that underlies these relationships will be a challenge. The key conclusion of this analysis is that the damage to social and human capital is significant, and rebuilding that social and human capital is likely a greater challenge than the bricks and mortar. The ways in which the international community could support this objective is beyond the scope of this analysis, but the need to end the crisis and begin recovery remains as urgent as ever.

References

World Bank. 2017. *The Toll of War: The Economic and Social Consequences of the Conflict in Syria*. World Bank, Washington, DC.

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Annex A: Productivity and probability of exit regressions

Restricted(a) Probit Estimates of Pr(Firm Exit=1)

VARIABLES	(1)	(2)	(3)
	All regions	Excl. Aleppo	Regional interactions
Labor productivity [LP](log)	-0.120 (0.0798)	-0.225** (0.0971)	-0.301** (0.125)
Size, employees (log)	-0.226*** (0.0837)	-0.181** (0.0922)	-0.236*** (0.0872)
Aleppo (yes=1)	1.382*** (0.295)		-8.578*** (3.009)
Hama/Homs/Lattakia (yes=1)	0.132 (0.228)	0.117 (0.230)	-1.407 (2.415)
LP * Aleppo			0.760*** (0.228)
LP * Hama/Homs/Lattakia			0.117 (0.183)
Constant	1.651 (1.129)	2.876** (1.308)	4.054** (1.693)
Observations	196	168	196

*** p<0.01, ** p<0.05, * p<0.1

Probit estimations of firm exit, using incidence weights determined by re-weighting to account for the absence of un-reachable firms, based on Aga and Francis (2017). Sector FE not shown: manufacturing firms in Damascus are the based case. Robust standard errors in parentheses. Labor productivity (log) is defined as value added (revenues - intermediates) per worker.

(a) Restricted omits those firms that were unreachable

Probability of Exit at 25th and 75th Percentile of Labor Productivity

Damascus			
25th %tile	24%	27%	27%
75th %tile	19%	17%	14%
Diff	-5%	-9%	-12%
Aleppo			
25th %tile	75%		64%
75th %tile	69%		85%
Diff	-6%		21%
Hama/Homs/Lattakia			
25th %tile	28%	22%	29%
75th %tile	22%	14%	20%
Diff	-6%	-8%	-8%

Predicted probabilities, of manufacturing firms, held at the median (log) size. Labor productivity (log) is defined as value added (revenues - intermediates) per worker. Percentiles are determined over regression samples.

Unrestricted(b) Probit Estimates of Pr(Firm Exit=1)

VARIABLES	(1)	(2)	(3)
	All regions	Excl. Aleppo	Regional interactions
Labor productivity [LP](log)	-0.126** (0.0574)	-0.182*** (0.0618)	-0.260*** (0.0865)
Size, employees (log)	-0.251*** (0.0616)	-0.231*** (0.0666)	-0.257*** (0.0623)
Aleppo (yes=1)	1.003*** (0.232)		-8.598*** (3.015)
Hama/Homs/Lattakia (yes=1)	0.0113 (0.160)	0.0229 (0.162)	-2.025 (1.619)
LP * Aleppo			0.739*** (0.233)
LP * Hama/Homs/Lattakia			0.154 (0.121)
Constant	2.681*** (0.836)	3.338*** (0.888)	4.460*** (1.189)
Observations	336	281	336

*** p<0.01, ** p<0.05, * p<0.1

Probit estimations of firm exit, using incidence weights determined by re-weighting to account for the absence of un-reachable firms, based on Aga and Francis (2017). Sector FE not shown: manufacturing firms in Damascus are the based case. Robust standard errors in parentheses. Labor productivity (log) is defined as value added (revenues - intermediates) per worker.

(b) Unrestricted considers unreachable firms as exiting the market

Probability of Exit at 25th and 75th Percentile of Labor Productivity

Damascus			
25th %tile	60%	61%	63%
75th %tile	52%	50%	48%
Diff	-7%	-11%	-15%
Aleppo			
25th %tile	89%		83%
75th %tile	86%		95%
Diff	-4%		12%
Hama/Homs/Lattakia			
25th %tile	60%	62%	59%
75th %tile	53%	51%	53%
Diff	-7%	-11%	-6%

Predicted probabilities, of manufacturing firms, held at the median (log) size. Labor productivity (log) is defined as value added (revenues - intermediates) per worker. Percentiles are determined over regression samples.

Annex B: Breakdown of all firms by sector size and region

Red numbers represent information taken from the 2009 survey

	Total	Size	Industry	Location			
Total Number of Firms 2009	508	Small	184	Manufacturing	349	Damascus	213
		Medium	202	Services	148	Aleppo	95
		Large	121	Others	11	Hama	42
		Information missing	1			Homs	56
						Lattakia	45
						Damascus Country	32
						Information missing	25
Total Number of Firms 2017	508	Small	90	Manufacturing	156	Damascus	151
		Medium	97	Services	86	Aleppo	17
		Large	33	Others	2	Hama	24
		Information missing	288	Information missing	264	Homs	14
						Lattakia	34
						Information missing	268
Not reached	203	Small	96	Manufacturing	138	Damascus	79
		Medium	71	Services	62	Aleppo	45
		Large	35	Others	3	Hama	18
		Information missing	1			Homs	30
						Lattakia	9
						Damascus Country	12
Temporarily closed	23	Small	4	Manufacturing	20	Damascus	10
		Medium	12	Services	3	Aleppo	0
		Large	7	Others	0	Hama	1
						Homs	4
						Lattakia	4
						Damascus Country	2
Permanently closed	60	Small	23	Manufacturing	39	Damascus	13
		Medium	29	Services	20	Aleppo	33
		Large	8	Others	1	Hama	0
						Information missing	2

						Homs	8
			60		60	Lattakia	3
						Damascus Country	2
						Information missing	1
"Working"	222	Small	86	Manufacturing	137	Damascus	143
		Medium	97	Services	79	Aleppo	15
		Large	33	Others	2	Hama	23
		Information missing	6	Information missing	4	Homs	12
						Lattakia	29
Operational	160	Small	61	Manufacturing	108	Damascus	100
		Medium	73	Services	50	Aleppo	15
		Large	26	Others	2	Hama	16
						Homs	9
						Lattakia	20

Annex C: Survey Questionnaire

FCV RAPID ASSESSMENT SURVEY

READ THE FOLLOWING TO RESPONDENT BEFORE PROCEEDING.

This survey is intended to understand the impact of the recent crisis on the private sector. It is a follow up to the survey you participated in back in 2009 which was also completed by the Syrian Enterprise and Business Center. The information collected is strictly confidential and responses will be grouped in the analysis. The names of participating firms and respondents will not be used in any document based on the survey. Your answers should reflect only your experience of doing business in your country.

Please note we are interested in the experience of your business(es) *inside* Syria.

A- BASIC INFORMATION (2009 DATA TO BE COMPLETED BEFORE INTERVIEW, 2017 TO BE UPDATED FROM INTERVIEW)

	2009 data	2017 data
Country:		
Questionnaire ID:		

	2009 data	2017 data
Company/ Establishment Name		
Street Address		
Phone		
Fax		
Email		
Position		

Name of Person Surveyed	Position	Mobile Number	Email Address
Name of Enumerator	Date	Name of Supervisor	Name of quality reviewer

Location / Governorate

A.1	Governorate 2009	Governorate 2017
Damascus	1	1
Aleppo	2	2
Hama	3	3
Homs	4	4
Latakia	5	5

A.4 Size	Sampling size	Screening Size
Small (≥ 5 and ≤ 19)	1	1
Medium (≥ 20 and ≤ 99)	2	2
Large (≥ 100)	3	3

A.2 City/town

2009:	2017:
-------	-------

A.3 Industry

		Sector 2009	Sector 2017
Manufacturing	Food processing	15	15
	Textiles	17	17
	Garments	18	18
	Chemicals	24	24
	Plastics & rubber	25	25
	Non metallic mineral products	26	26
	Basic metals	27	27
	Fabricate metal products	28	28
	Machinery and equipment	29	29
	Electronics (31 & 32)	31	31
	Other manufacturing	2	2
	Services	Wholesale	51
Retail		52	52
IT		72	72
Tourism		55	55
Other services		50	50
Other	Construction	45	45

B- IMPACTS OF THE CRISIS

B2) Is your business currently operational in Syria? I.e opening its doors or producing actively?	Yes.....1
	No .....2 Don't know (spontaneous)...-9 Did not want to answer (spontaneous),.....-10

B3) To what extent have you experienced the following problems in your business in the last two months from 1 to 5, from 1 being “not at all”, 2 being “very little”, 3 being “to a moderate extent”, 4 being “to a large extent”, and 5 being “severely ”?

	Not at all	Very little	To a moderate extent	To a large extent	Severely	DK
Service Interruptions						
Water & Waste Water	1	2	3	4	5	97
Electricity	1	2	3	4	5	97
Natural Gas	1	2	3	4	5	97
Fuel supply (diesel/gasoline)	1	2	3	4	5	97
Phone, Internet, Post	1	2	3	4	5	97
Garbage collection/disposal	1	2	3	4	5	97
Physical damage and insecurity						
Damaged or looted building, equipment, computers, etc.	1	2	3	4	5	97
Loss of documents/records/data	1	2	3	4	5	97
Losses in inventory or stock due to damage, theft, or vandalism	1	2	3	4	5	97
Physical insecurity at or around premises	1	2	3	4	5	97
Transport problems						
Transport insecurity– inter-city roads, air, etc.	1	2	3	4	5	97
Transport damage – inter-city roads, airports, etc.	1	2	3	4	5	97
City street closures, checkpoints or loss of public access	1	2	3	4	5	97
Loss of customers and suppliers						
Loss of customers	1	2	3	4	5	97
Loss of suppliers	1	2	3	4	5	97
Negative publicity/image of your country or your area	1	2	3	4	5	97
Loss of employees						

Loss of employees: managers	1	2	3	4	5	97
Loss of employees: skilled workers/technicians	1	2	3	4	5	97
Loss of employees: unskilled workers	1	2	3	4	5	97
Finance problems						
Problems accessing credit	1	2	3	4	5	97
Problems accessing other banking services	1	2	3	4	5	97
Increase in accounts receivable	1	2	3	4	5	97
Business services problems						
Customs delays	1	2	3	4	5	97
Problems with business licensing and permits	1	2	3	4	5	97
Corruption	1	2	3	4	5	97
Other (specify)	1	2	3	4	5	97

B4) Of the categories of issues in the previous questions please specify the single biggest constraint to your ability to do business [Surveyor: read the options to the respondent below]:

Service interruptions	.....1
Physical damage and insecurity	.....2
Transport problems	.....3
Loss of customers and suppliers	.....4
Loss of employees	.....5
Finance problems	.....6
Business services problems	.....7
Other (please specify)	.....8
Don't know (spontaneous)	.....-9
Did not want to answer (spontaneous)	.....-10

<p>B5) Has your company moved, or is it in the process of moving, any operations to a different location as a result of the crisis?</p> <p>ALLOW MULTIPLE RESPONSE</p>	Yes, elsewhere in Syria .....1 (Where: _____)
	Yes, outside Syria (Where: _____)2
	No: .....3
	Don't know (spontaneous)...-9
	Did not want to answer (spontaneous).....-10

C- SALES IMPACTS

<p>C1) Compared to before the crisis in 2010 have your domestic sales:</p>	Increased.....1 Estimated Percentage □□□ Did not provide % (spontaneous)....4
	Remained the same.....2
	Decreased.....3 Estimated Percentage □□□ Did not provide % (spontaneous)....5
	Don't know (spontaneous)...-9
	Did not want to answer any part of the question (spontaneous).....-10

C2) Compared to before the crisis in 2010 have your exports abroad:	Increased.....1 Estimated Percentage <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Did not provide % (spontaneous)....4
	Remained the same.....2
	Decreased.....3 Estimated Percentage <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Did not provide % (spontaneous)....5
	I did not export either in 2010 or today .....4
	Don't know (spontaneous)....-9 Did not want to answer any part of the question (spontaneous).....-10

C3) Compared to before the crisis in 2010 have you adjusted your price of goods/services sold as a result of the crisis?	Increase.....1 Estimated Percentage <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Did not provide % (spontaneous)....4
	No change.....2
	Decrease.....3 Estimated Percentage <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Did not provide % (spontaneous)....5
	Don't know (spontaneous)....-9 Did not want to answer any part of the question (spontaneous).....-10

C4) Compared to before the crisis in 2010 has the typical amount of time your business is open and operational on a regular basis:	Increased.....1 Estimated Percentage <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Did not provide % (spontaneous)....4
	No change.....2
	Decreased.....3 Estimated Percentage <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Did not provide % (spontaneous)....5
	Don't know (spontaneous)....-9 Did not want to answer any part of the question (spontaneous).....-10

C5) Compared to before the crisis in 2010, have you lost key customers or contracts as a result of the crisis?	Yes .....1
	No .....2
	Don't know (spontaneous)....-9 Did not want to answer (spontaneous).....-10

C6) Did your firm suffer any extra losses from looting, theft or vandalism crimes since the beginning of the crisis in 2010?	Yes.....1
	No.....2
	Don't know (spontaneous)....-9 Did not want to answer (spontaneous).....-10
IF NO, DON'T KNOW, OR DID NOT WANT TO ANSWER GO TO D1	

C7) If yes, what was the approximate value of these losses as a percentage of your annual sales in 2016?	Percentage <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Don't know (spontaneous)...-9 Did not want to answer (spontaneous).....-10
--	--

D- INPUTS AND COSTS

D1) Do you currently suffer any disruptions in <i>domestic</i> supplies as a result of the crisis?	Yes.....1
	No.....2
	Don't know (spontaneous)...-9 Did not want to answer (spontaneous).....-10

IF NO, DON'T KNOW, OR DID NOT WANT TO ANSWER GO TO D3

D2) If yes, how much longer (how many more additional days) does it typically take to receive <i>domestic</i> supplies compared to 2010, before the crisis?	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> days
	Don't know (spontaneous)...-9 Did not want to answer (spontaneous).....-10

D3) Do you currently you suffer any disruptions in <i>imported</i> supplies as a result of the crisis?	Yes.....1
	No.....2
	No imports.....3
	Don't know (spontaneous)...-9 Did not want to answer (spontaneous).....-10

IF NO, NO IMPORTS, DON'T KNOW, OR DID NOT WANT TO ANSWER GO TO D5

D4) If yes, how much longer (how many more additional days) does it typically take to receive <i>imported</i> supplies compared to 2010, before the crisis?	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> days
	Don't know (spontaneous)...-9 Did not want to answer (spontaneous).....-10

D5) Compared to before the crisis in 2010 have the cost of your supplies:	Increased.....1 Estimated Percentage <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Did not provide % (spontaneous)....4
	Not changed.....2
	Decreased.....3 Estimated Percentage <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Did not provide % (spontaneous)....5

	Don't know (spontaneous)...-9 Did not want to answer any part of the question (spontaneous).....-10
--	--

D6) Compared to before the crisis in 2010 has your spending on security for your business:	Increased.....1 Estimated Percentage □□□ Did not provide % (spontaneous)...4
	Remained the same.....2
	Decreased.....3 Estimated Percentage □□□ Did not provide % (spontaneous)...5
	Don't know (spontaneous)...-9 Did not want to answer any part of the question (spontaneous).....-10

D7) Compared to before the crisis in 2010 has your spending, either officially or unofficially on taxation or other payments to the State or local authorities	Increased.....1 Estimated Percentage □□□ Did not provide % (spontaneous)...4
	Remained the same.....2
	Decreased.....3 Estimated Percentage □□□ Did not provide % (spontaneous)...5
	Don't know (spontaneous)...-9 Did not want to answer any part of the question (spontaneous).....-10

E- FINANCING AND CASH MANAGEMENT

E1) What is your assessment of the ease of obtaining credit from any source as compared to 2010 before the crisis?	Easier than before .....1
	As usual .....2
	Mild restrictions 3
	Significant restrictions .....4
	Don't know (spontaneous) .....-9 Did not want to answer (spontaneous).....-10

E2) What is your assessment of the ease of obtaining foreign currency as compared to before the crisis in 2010,?	Easier than before .....1
	As usual .....2
	Mild restrictions 3
	Significant restrictions .....4
	Don't know (spontaneous) .....-9 Did not want to answer (spontaneous).....-10

E3) In 2010 before the crisis, what was your primary source of credit for this establishment?	Credit from suppliers or advances from customers.....1
	An informal lender.....2
	Banks.....3
	Micro-finance institution.....4
	Friends or family.....5
	Did not have credit.....6

	Other.... (please specify).....7
	Don't know (spontaneous) .....-9
	Did not want to answer (spontaneous).....-10

E4) At this time, what is your primary source of credit for this establishment?	Credit from suppliers or advances from customers.....1
	An informal lender.....2
	Banks.....3
	Micro-finance institution.....4
	Friends or family.....5
	Do not have credit.....6
	Other... (please specify).....7
	Don't know (spontaneous) .....-9
	Did not want to answer (spontaneous).....-10

IF "DO NOT HAVE CREDIT" GO TO E7

E5) Do you currently use credit to provide working capital or for investments?	Working capital .....1
	Investment .....2
	Both.....3
	Don't know (spontaneous) .....-9
	Did not want to answer (spontaneous).....-10

E6) Has your cost of financing changed due to recent events related to the crisis?	Increased.....1 Percentage <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	Did not provide % (spontaneous)....4
	Remained the same.....2
	Decreased.....3 Percentage <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	Did not provide % (spontaneous)....5
	Don't know (spontaneous)....-9
	Did not want to answer any part of the question (spontaneous).....-10

E7) Since the start of the crisis in 2010, have your outstanding cash payment obligations (i.e. accounts payable) to suppliers:	Increased.....1 Estimated Percentage <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	Did not provide % (spontaneous)....4
	Remained the same.....2
	Decreased.....3 Estimated Percentage <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	Did not provide % (spontaneous)....5
	Don't know (spontaneous)....-9
	Did not want to answer any part of the question (spontaneous).....-10

E8) How has the share of late or nonpaying customers changed as a result of the crisis?	Increased.....1 Estimated Percentage <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	Did not provide % (spontaneous)....4
	Remained the same.....2
	Decreased.....3

	Estimated Percentage <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	Did not provide % (spontaneous)....5
	Don't know (spontaneous).....-9 Did not want to answer any part of the question (spontaneous).....-10

E9) What kind of physical bank branch do you have regular access to?	No access to any branch .....1
	Access to a functioning ATM only .....2
	Access to a functioning bank branch..... 3
	Don't know (spontaneous) .....-9
	Did not want to answer (spontaneous).....-10

E10) How do you pay suppliers?	In cash directly .....1
	Through the formal banking system .....2
	Through the <i>hawala</i> system..... 3
	Other (please specify).....4
	Don't know (spontaneous) .....-9 Did not want to answer (spontaneous).....-10

E11) Has your company made any investments in building, plant or equipment since the beginning of the crisis in 2010?	Yes .....1
	No.....2
	Don't know (spontaneous).....-9
	Did not want to answer (spontaneous).....-10

E12) Did your company cancel any planned investment in building, plant or equipment due to the crisis?	Yes .....1
	No.....2
	Don't know (spontaneous).....-9
	Did not want to answer (spontaneous).....-10

F —EMPLOYMENT

F1) How do you pay your employees?	In cash directly .....1
	Through the formal banking system .....2
	Through the <i>hawala</i> system..... 3
	Other (please specify).....4
	Don't know (spontaneous) .....-9 Did not want to answer (spontaneous).....-10

F2) Has your business had any days in which it was fully or significantly non-operational in the last 6 months due to employees being unable to come to work?	Yes.....1
	Days <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Did not provide days (spontaneous) ....3
	No .....2 Did not want to answer any part of the question (spontaneous).....-10

F3) Have you increased the use of temporary, non-permanent workers since the beginning of the crisis in 2010?	Yes.....1
	Estimated number of temporary workers employed daily during last one to two months <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Did not provide number ....3
	No .....2 Did not want to answer any part of the question (spontaneous).....-10

The following question refers only to permanent workers (including management) of your establishment. Permanent workers are defined as all paid workers that are employed for a term of one or more years and/or have a guaranteed renewal of their employment contract and work full day

F4a) Since the start of the crisis in 2010, has the number of people employed at your establishment:	Increased.....1
	Remained the same.....2
	Decreased.....3
	Don't know (spontaneous)....-9 Did not want to answer (spontaneous).....-10

F4b) What was the average number of permanent workers in:	Total
2010:	
2016	
Don't know (spontaneous)....-9 Did not want to answer (spontaneous).....-10	

IF AN ANSWER WAS PROVIDED GO TO F5, IF NOT F4c

F4c) What has been the percentage change in permanent workers at your establishment between the start of the crisis in 2010 and now? Enumerator: please record percentage change and whether increase or decrease	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
	Remained the same.....2
	Don't know (spontaneous)....-9 Did not want to answer (spontaneous).....-10

F5) What was the average number of part time permanent workers in:	Total
2010:	
2016	
Don't know (spontaneous)....-9 Did not want to answer (spontaneous).....-10	

G—BACKGROUND INFORMATION ON FIRM

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G2) Are you the, or one of the, owners of this company?	Yes.....1
	No2
	Don't know (spontaneous).....-9 Did not want to answer (spontaneous)-10

G3) Are you the manager of this company?	Yes.....1
	No .....2
	Don't know (spontaneous).....-9 Did not want to answer (spontaneous) .....-10

G4) Would you be willing to speak with us again to discuss these issues in more detail?	Yes.....1
	No .....2
	Don't know (spontaneous).....-9 Did not want to answer (spontaneous).....-10

IF NO, END SURVEY

G5) What is your name? Did not want to answer (spontaneous).....-10
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**THE SURVEY ENDS HERE
THANK YOU FOR YOUR COOPERATION**

H – QUESTIONS FOR THE ENUMERATOR

H1) How long did the interview take in minutes?
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H2) How many calls did it take to complete the interview?	1.....1
	22
	More than 2.....3

H3) What degree of confidence do you have in their replies?	Low.....1
	Medium .....2
	High.....3