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THE IMPACT OF THE EBOLA OUTBREAK ON FIRMS IN LIBERIA

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In brief

- The study presents evidence of a large decrease in Liberia's nationwide economic activity - during the Ebola outbreak - particularly in the capital, Monrovia, and particularly for business sectors most sensitive to economic fluctuations. The correlation of outbreak severity with the contemporary economic impact is weak outside Monrovia.
- Based on these findings, efforts should seek to understand whether, to whom, and where any long-lasting economic damage occurred in order to consider a targeted response.
- In Liberia, 337 firms were surveyed before and during the outbreak. Surveys were carried out by Building Markets, a non-profit which seeks to connect Liberian firms with global supply chains. Businesses were asked if they had won contracts recently, shed employees, or closed. Results showed significant contraction in businesses across Liberia.
- Nationwide, 12% of firms closed between pre- and post-outbreak surveys. The downturn was especially severe in Montserrado County - where Monrovia, the capital city is located, and where Ebola incidence was among the highest of any county -, with 20% of businesses closing.
- Surveyed firms in Montserrado lost on average 47% of their employees between the pre- and post-outbreak surveys. Firms in less severely affected counties lost 24% of employees between survey rounds.
- The share of successful recent winners of supply contracts in the sample fell by 30 percentage points in counties where Ebola was less severe, and by 49 percentage points in Montserrado.

The full article in the Journal of Epidemiology and Community Health is here. Diagrams used here are from the article and are reproduced under a Creative Commons (CC BY-NC 4.0) Licence.

Background

The Ebola virus has claimed over 11,000 lives in West Africa and is thought to have caused extensive economic damage.

In October 2015, the IMF estimated that nationwide economic growth during 2014 and 2015 in the region would be dramatically lower than expected in pre-outbreak April 2014 forecasts (IMF, 2015). Guinea had its GDP forecast revised from 10% down to 1%; Liberia's was previously estimated at 16%, down to 2%. Sierra

Leone is worst hit; the economy was earlier expected to grow 26% - the revised expectation is for the economy to contract by 19%. While some of the downward revision stems from lower-than-anticipated commodity extraction, the Ebola outbreak had a substantial economy-wide impact.

Other studies on the economic impact of the outbreak have focused on changes to the circumstances and behaviour of individuals. In a sample of Liberians who were working when originally surveyed in the first eight months of 2014, joblessness peaked in December 2014 at 48%; joblessness fell to 40% in April 2015 (Himelein, 2015). Urban Liberians were particularly badly affected. A study conducted between December 2014 and January 2015 by IGC/MIT Governance Lab researchers reported that 47% of Monrovians interviewed had lost jobs in the preceding six months (Tsai, Blair & Morse, 2015). In Sierra Leone, IGC research conducted in partnership with Innovations for Poverty Action reported falls in agricultural trader activity but limited overall effects on food markets that persisted beyond the height of the outbreak (Glennerster & Suri, 2015).

This particular study assesses the extent and incidence of the economic damage to Liberian firms – the first study to do so.

Method

The non-profit Building Markets (BM), working with IGC researchers, collected data on different firm attributes during the Ebola outbreak, using the same survey questions that they had employed before the crisis as part of their work to connect Liberian firms with global supply chains. A sample of 403 firms, from which data from 337 was successfully collected, was randomly chosen from the Building Markets database, which contains data on about a quarter of the 12,600 businesses formally registered in Liberia. This sample was designed to provide a reasonable level of nationwide and sector-wide coverage. The firms represent four commercial areas: restaurants; food and beverage sales; automotive; and construction. The counties where businesses operate were classified according to the per capita severity of the Ebola outbreak.

Firms were divided into three groups depending on their location; Montserrado County, where the capital city, Monrovia is located and where incidence was among the highest; less affected counties with low incidence at the time of survey; and more affected counties outside of Montserrado, also with high incidence.

Besides charting the overall changes in firm-level outcomes during the crisis, the research examined whether counties more severely affected by Ebola also experienced a greater decline in economic activity.

Firms were surveyed twice during the outbreak, in September and November 2014. The responses were combined with additional data on each firm for these same variables from before the

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outbreak. Three questions were used to assess the change in economic activity. Firms were asked: first, whether the business had shut; second, the number of employees they had; and third, whether they'd won any contracts in the preceding six months. Respondents in the 2014 round were not asked about Ebola to avoid 'priming' those contacted.

The Metro Business Center store on Water Street in the Waterside Market area of Monrovia, Liberia (Photo: Mark Fischer)

Summary of results

Closure

One in every eight firms surveyed closed following the Ebola outbreak. Closures in Montserrado, at 20%, were significantly higher than in both the less severely affected and more severely affected counties.

It is not possible to make a direct comparison with closure rates before the Ebola outbreak for Liberian firms. However, the Montserrado rate of 20% seems to be particularly high, relative to Africa-wide business closure estimates of around 4-5% annually (Aga & Francis, 2015).

Cyclical sectors were hit worst: 30% of restaurants closed, and 15% of food and drink vendors closed between the pre- and post-Ebola surveys.

Employee shedding

Firms in the sample had averaged around nine employees in the baseline survey. Surveyed firms in Montserrado lost on average 47% of their employees between the pre- and post-outbreak surveys. Firms in the less severely affected areas lost 24% of employees between rounds, a milder loss than in Montserrado but not significantly less than in highly-affected counties outside Montserrado.

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Figure 1: Percentage change in the likelihood of winning a contract in the six months prior to survey (95% confidence intervals)

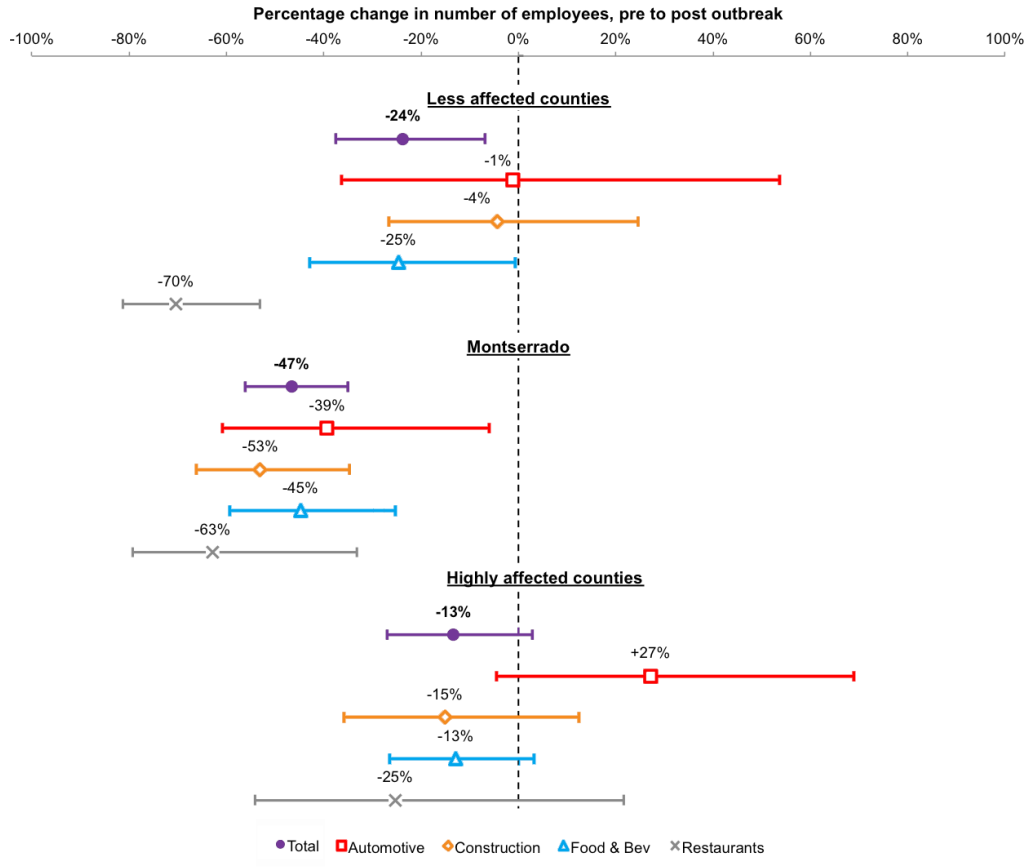

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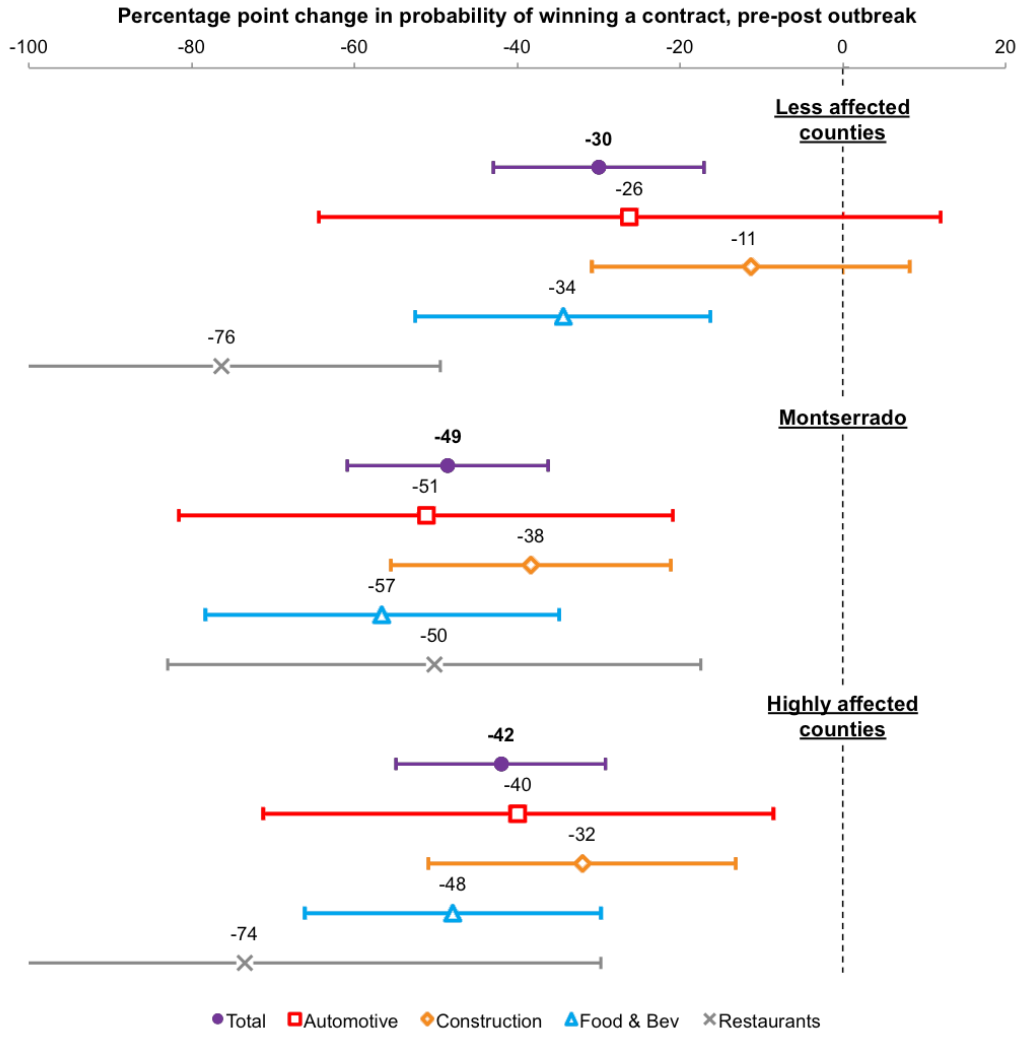
Figure 2: Percentage change in number of employees per firm, before and during outbreak (95% confidence intervals)



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Interpreting the results

The results point to two main conclusions. Firstly, there was a large nationwide decrease in economic activity during the Ebola outbreak. Second, Montserrado County was hit significantly harder economically than other regions, but there was no significant difference between the more- and less-affected areas outside the capital. This suggests that Ebola should be seen as a nationwide economic shock, the local contemporary impact of which is only weakly correlated with proximate Ebola cases.

In Monrovia, the construction and restaurant sectors shed the most employees, while the food and beverages sector lost contracts to a greater extent than other sectors. Outside Montserrado, restaurants and food and drinks sectors were particularly hard hit.

There are limitations to what the study can tell us. The findings do not lead immediately to the conclusion that targeting should respond to initial Ebola impact, nor that support to individual firms will contribute to Liberia's recovery. For example, some of the firms that closed in September and November 2014 may have re-opened, or the entrepreneur behind the firm may have started a new business. Furthermore, the worst-affected sectors may also rebound quicker than those less affected. The study focuses on legally registered firms in the formal sector, which employs around 32% of the Liberian workforce (Hettinger, 2015). These firms had relatively high per-employee revenues, at around USD 2,800 a month pre-outbreak, but are not be representative of the private sector as a whole.

The method used in this study cannot identify the chain of causation from the Ebola outbreak to firms shutting down, employing fewer people, and attaining fewer contracts, exactly because the economic shock was nation-wide so that we lack an unaffected comparison group.

Limitations notwithstanding, the study offers a valuable charting of the health of Liberian firms during the crisis as well as a comparison of the severity of the outbreak in different regions with pronounced declines in economic activity across Liberia.

Policy implications

In July 2015, donors pledged USD3.4 billion to the three most affected countries. How that money will be spent is not clear at the moment. The Government of Liberia plans to respond to the crisis with a variety of private sector support measures over the next three years. However, Government-financed budgeted spending has fallen year-on-year, from USD 635 million to USD 623 million.

The results of this study suggest that the economic impact of Ebola was felt across Liberia. Economic impact was not strictly driven by the local intensity of the outbreak; indeed, it seems to

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have been felt more intensely in sectors and places that are routinely more sensitive to changes in demand. Efforts to rebuild the economy should seek to understand whether any economic value has been permanently destroyed as a result of the outbreak, and, if so, whether a targeted intervention might be able to revive it.

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Economics of Ebola initiative

The recent outbreak of Ebola in West Africa has generated global alarm; attention is now turning to its economic consequences, which may add to the damage caused by the disease.

In response, the IGC's Economics of Ebola initiative aims to support the Governments of Sierra Leone and Liberia and their development partners by producing and disseminating credible demand-driven research, data, and analysis to ensure that policy responses are evidence based and that corrective actions are effective and well targeted.

Under the current special call for proposals, the IGC is funding six research projects across Sierra Leone and Liberia on the economic impacts of the crisis and also welcomes research requests from policymakers and development partners on emerging policy questions.

In this set of bulletins on the economic impacts of Ebola, the IGC is disseminating the data collected, including key facts and policy recommendations. The IGC shares these bulletins with the broad group of aid agencies, NGOs, and journalists with an interest in the Ebola epidemic.

Previous editions of the IGC's economic impact of Ebola bulletin are available online here: http://www.theigc.org/project/economics-of-ebola-initiative/

The IGC has also developed a web page collating the results of IGC and non-IGC research on the economic impacts of Ebola in order to make their policy implications more accessible. This page is available here: http://www.theigc.org/economics-of-ebola-research/

About the International Growth Centre

The International Growth Centre (IGC) aims to promote sustainable growth in developing countries by providing demand-led policy advice based on frontier research. The IGC directs a global network of world-leading researchers and in-country teams in Africa and South Asia and works closely with partner governments to generate high quality research and policy advice on key growth challenges. Based at LSE and in partnership with the University of Oxford, the IGC is funded by the UK Department for International Development (DFID).