

## Coping with Political Instability: Micro Evidence from Kenya's 2007 Election Crisis

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Politically unstable countries tend to grow more slowly than more stable ones (Robert Barro 1991). Two main causal pathways have been discussed. First, the uncertainty associated with political instability may discourage physical capital accumulation and investment. Second, political instability often results in violent civil conflict, which may disrupt productive activity. This paper presents descriptive evidence on the importance of this second pathway, using a unique dataset collected immediately after the 2007 election crisis in Kenya.

The 2007 presidential election in Kenya pitted the incumbent Mwai Kibaki against Raila Odinga. The candidates drew support from different ethnic groups and, as the election season progressed, the electorate divided along ethnic lines. Though the campaign remained relatively calm and the balloting went smoothly, there were major irregularities during the tallying of votes. After a two-day delay, the results were finally announced on December 29, 2007, with Kibaki declared the winner by a very narrow margin. Even though the results were widely disputed by the opposition and the international community, Kibaki was quickly sworn in and

assumed office. Almost immediately thereafter, Kenya plunged into social unrest which lasted throughout January and February 2008 and which was marked by widespread looting, arson, property destruction and ethnic violence. By the time a peace agreement was finally signed, on February 28, 2008, some 1,200 people had been killed and 500,000 more had been displaced (Clark Gibson and James Long 2009).

Kenya is widely considered to be one of the most stable states in East Africa and in Africa in general, so the conflict was largely unexpected both within Kenya and by the international community. We examine the microeconomic impacts of this unexpected political crisis on the lives of rural households in Western Kenya. We interviewed a total of 606 daily income earners in the immediate aftermath of the crisis and asked them to recall their income, expenditures, and consumption between November 2007 and March 2008. We collected this data in a relatively ethnically homogenous area of Western Kenya which saw relatively little ethnic violence, but where riots and roadblocks seriously disrupted markets and other economic activities.

We study the impact of the crisis on three distinct samples: (i) small scale vendors and artisans who make approximately \$2.50 per day; (ii) somewhat richer shopkeepers who earn about \$10 per day and who might be considered “middle class” in rural Kenya; and (iii) women who are involved in transactional sex. We observe sizeable decreases in income, expenditure, and food consumption for all three samples over the two months of civil conflict that immediately followed the election.

The impact of social unrest on social outcomes is generally difficult to identify convincingly because of the dual causality between conflict and economic conditions (Edward Miguel et al. 2004; Christopher Blattman and Miguel forthcoming). But, since the data we use in this paper were collected in the immediate aftermath of an unexpected crisis, we are able

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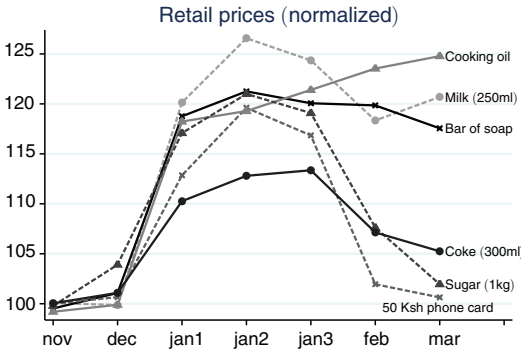


FIGURE 1. RETAIL PRICES OVER CRISIS PERIOD

Notes: Average prices, normalized at 100 for the November 2007 period, reported by 221 shop owners in multiple towns in Busia District for November 2007, the first three weeks of December 2007, the first week of January 2008 (jan1), the second week of January 2008 (jan2), the third week of January 2008 (jan3), February 2008 and March 2008.

to precisely trace out the effects of the conflict. This paper also contributes to the literature on risk coping over large, aggregate shocks.<sup>1</sup> While the Kenyan crisis was political, it led to significant reductions in income and in major market disruptions. The unexpected nature of the shock makes it similar to a natural disaster, albeit with much faster recovery of markets afterwards.

## I. Data

Our data come from Busia district in Western Province. The market center of the district is Busia Town, a small border town on the trucking route between Nairobi and Kampala, Uganda. Busia is fairly ethnically homogeneous, and the area saw little outright violence during the crisis. However, roadblocks and market closures were common and resulted in shortages of many items and skyrocketing prices.

As Figure 1 shows, the retail prices of six food and nonfood items (soap, cooking oil, milk, air time for cell phones, sugar, and Coca-Cola) increased by 15–25 percent in the weeks following the presidential election, and the prices of some items remained high even after the political crisis ended. For most items, the increase

in retail prices was a response to an increase in wholesale prices (data not shown).

We examine the impact of the crisis using a dataset drawn from three distinct samples: (i) a set of 151 market vendors, artisans, and bicycle taxi drivers previously sampled in Pascaline Dupas and Jonathan Robinson (2009); (ii) a set of 221 local shop owners previously sampled in Michael Kremer et al. (2009); and (iii) a sample of 214 women who supply transactional sex, previously sampled in Robinson and Ethan Yeh (2009).<sup>2</sup>

We visited each individual after the crisis had ended (March 2008) and collected retrospective data on a variety of outcomes over the November 2007–March 2008 period. These outcomes included income, expenditures, and several measures of consumption (the number of meals and the type of food). For each outcome, respondents were asked to recall the amount for an “average week” in each month. In addition, we asked for a detailed account week by week for January 2008 (since that was when the crisis was most intense). We supplement the dataset with background information collected for all three samples in 2005–2006.

## II. Average Impacts of the Crisis

In addition to its direct impact on the victims of the violence (which we do not study here), the political crisis had large impacts on the lives of those that depend on the local markets for their livelihoods. Figure 2 presents graphs showing the extent of the disruption on income levels for all three samples. All three groups were severely affected for at least three weeks in January.

For small vendors and artisans, average weekly incomes fell from 726 Kenyan Shillings (Ksh) in the precrisis period (November 2007) to less than 500 Ksh throughout January 2008.<sup>3</sup>

Shop owners, whose businesses are much larger, experienced an even larger drop, with average weekly income falling from 5,100 Ksh to between 2,100 and 3,400 Ksh over the same

<sup>2</sup> Almost all of the people in the three samples are Luhya, Luo or Teso, the ethnic groups native to Busia Town and the neighboring area. A very small minority are Kikuyu (the group that strongly backed the incumbent, and the group which was targeted by local mobs in Western Kenya).

<sup>3</sup> The exchange rate at the time was approximately 70 Kenyan Shillings (Ksh) to a US dollar.

<sup>1</sup> For a review of this literature, see Francisco Ferreira and Norbert Schady (2009).

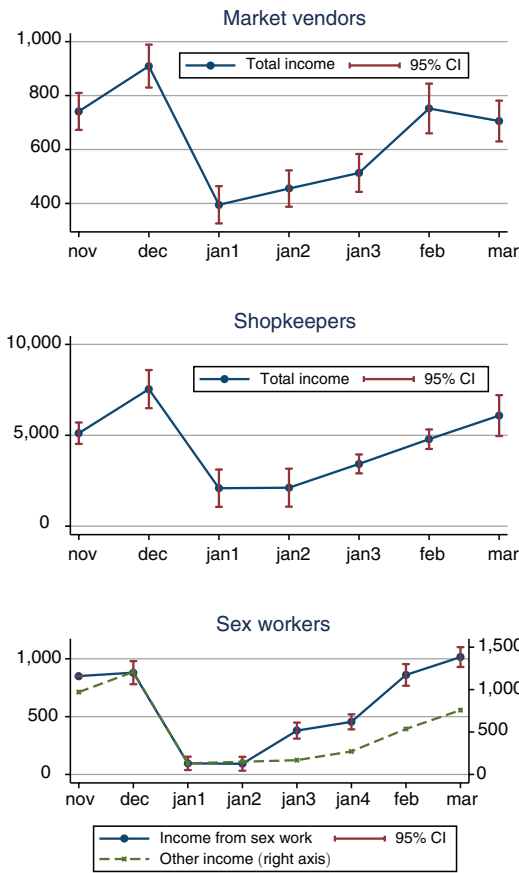


FIGURE 2. INCOME

Notes: Values in Kenyan Shillings. Exchange Rate was approximately 70 Ksh to US\$1 at the time. See Figure 1 for notes on x-axis. These notes apply to Figure 3.

period. The sex workers were the worst hit: their weekly income fell from 852 Ksh to less than 100 Ksh in first two weeks of January and remained under 55 percent of their precrisis level for the rest of the month. This dramatic reduction in income is likely due to the fact that curfews and market closures greatly inhibited women's ability to find clients. In addition, road closures likely reduced the number of truck drivers coming through Busia, and truck drivers make up a sizeable percentage of clients. More generally, if transactional sex is a normal good, the income shock among clients would have also driven down demand.

Figure 3 shows a big dip in expenditures in January for all three types of individuals in our

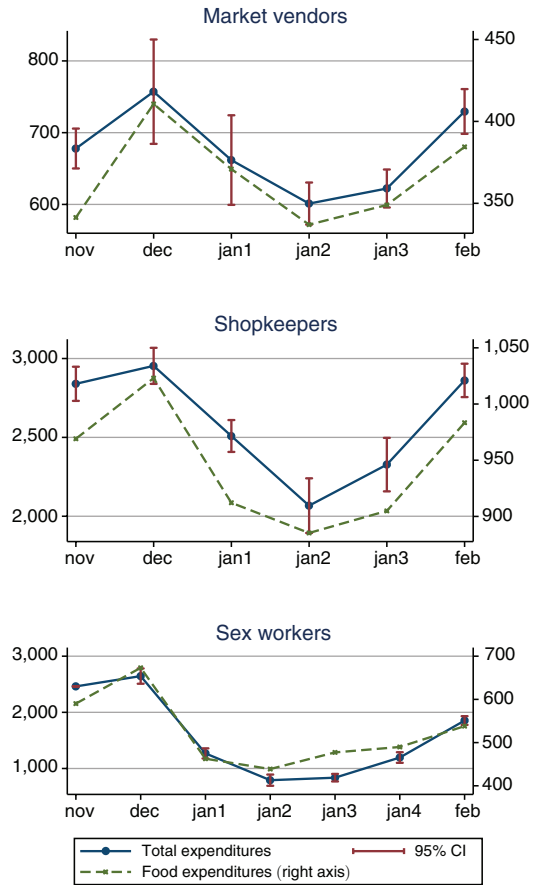


FIGURE 3. EXPENDITURES

sample. Given the price increase we documented earlier, this dip in expenditures implies an even larger drop in quantities purchased. This decrease in purchases was likely caused by both the large negative income shock we have just documented, and the fact that markets and shops were closed for a number of days in January, making it difficult to purchase goods even if one had the money.

The dashed lines in Figure 3 show food expenditures separately. We find that impacts varied somewhat across samples. Small market vendors, who live in more rural areas and who might have been able to buy food items from nearby farmers, did not decrease their food expenditures over the period. Shop owners saw a significant decrease, but a relatively small one in percentage terms (less than ten percent). In contrast, women who supply transactional sex (who typically live in the more semiurban Busia Town), saw a

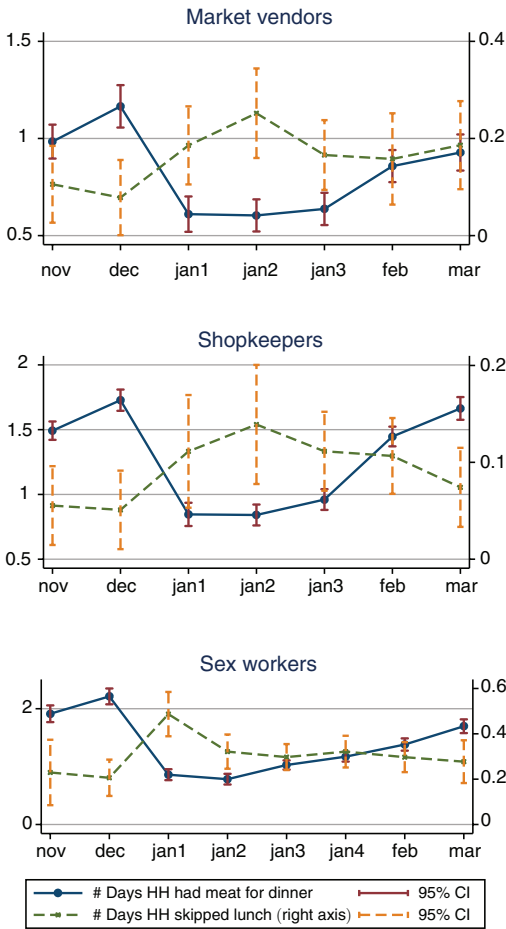


FIGURE 4. FOOD CONSUMPTION

roughly 20 percent decrease in their food expenditures throughout January and were still spending less on food in February 2008 than they had been in November 2007.

It is possible that some of these expenditures could have been shifted intertemporally such that the welfare impact might be smaller than Figure 3 would suggest. To examine this more carefully, Figure 4 shows the impact of the crisis on two measures of food consumption (the numbers of meals consumed and the numbers of days in which the household had consumed meat). For all three samples, we find a large increase in the likelihood that people skipped a meal, and a large decrease in meat consumption. Overall, this suggests that consumption

smoothing over the income shock was far from perfect, even among the relatively better-off sample of shop owners.

### III. Discussion

Government transitions in the developing world are often marked by outbreaks of social unrest and violence. In this paper, we document the impact that such crises can have and find that even a crisis with a relatively short duration (here, about two months) can have significant negative impacts on income and consumption. While we study the particular case of Kenya, such impacts might be expected to generalize to other poor countries in which people rely on traditional interhousehold risk coping mechanisms, since such systems do not work well in the presence of aggregate shocks.

The descriptive evidence we provide in this paper raises two questions. First, what risk coping strategies did people use to limit the effect of the crisis? Were wealthier households less affected by this temporary crisis? In Dupas and Robinson (2010), we study the coping mechanisms people used and test for heterogeneity in the effects of the crisis by background characteristics. We find surprisingly little heterogeneity in households' ability to smooth over the shock. This suggests that available risk-coping mechanisms were insufficient to deal with this episode (or that households considered the shock as permanent and not transitory).

Second, did the crisis have an impact on households beyond the temporary reduction in income and consumption? At low income levels, the most vulnerable may be forced to engage in behavior which temporarily increases income at the expense of long term well-being. In Dupas and Robinson (2010), we look at one possible long term cost of civil conflict: we analyze the effect of the crisis on the frequency with which women supply unprotected transactional sex. In this part of Kenya, there appears to be a price premium for unprotected sex, so that women with short term liquidity needs may choose to have unprotected sex to make up for temporary income shortfalls, even at the cost of increased HIV risk (Robinson and Yeh 2009). Consistent with this, we find that women who supply transactional sex increased the frequency with which they engaged in higher risk sex, and that this increase persisted after the crisis ended. As they

induce such higher risk behavior, these types of crises could have implications for long run HIV transmission rates.

#### REFERENCES

- Barro, Robert J.** 1991. "Economic Growth in a Cross Section of Countries." *Quarterly Journal of Economics*, 106(2): 407–43.
- Blattman, Christopher, and Edward Miguel.** Forthcoming. "Civil War." *Journal of Economic Literature*.
- Dupas, Pascaline, and Jonathan Robinson.** 2009. "Savings Constraints and Microenterprise Development: Evidence from a Field Experiment in Kenya." National Bureau of Economic Research Working Paper 14693.
- Dupas, Pascaline, and Jonathan Robinson.** 2010. "The Hidden Costs of Political Instability: Evidence from Kenya's 2007 Election Crisis." Unpublished.
- Ferreira, Francisco H. G., and Norbert Schady.** 2009. "Aggregate Economic Shocks, Child Schooling, and Child Health." *World Bank Research Observer*, 24(2): 147–81.
- Gibson, Clark C., and James D. Long.** 2009. "The Presidential and Parliamentary Elections in Kenya, December 2007." *Electoral Studies*, 28(3): 497–502.
- Kremer, Michael, Jean Lee, Jonathan Robinson, and Olga Rostapshova.** 2009. "The Returns to Capital for Small Retailers in Kenya: Evidence from Inventories." Unpublished.
- Miguel, Edward, Shanker Satyanath, and Ernest Sergenti.** 2004. "Economic Shocks and Civil Conflict: An Instrumental Variables Approach." *Journal of Political Economy*, 112(4): 725–53.
- Robinson, Jonathan, and Ethan Yeh.** 2009. "Transactional Sex as a Response to Risk in Western Kenya." The World Bank Policy Research Working Paper 4857.