# **S2 Appendix: Transmission of international to local mineral prices**

Following the example of Parker & Vadheim [1], the analysis makes use of international mineral prices. We do not have detailed information on local mineral prices. Fieldwork by Geenen [2] indicates, however, that local mineral traders in Eastern Congo closely monitor world mineral prices and use them to set local prices. This also happens at the very local level: “Even small traders who are based near the mining sites say they regularly check the price online, on their phone, or on TV5 Afrique” [2: p.249]. Geenen further quotes a local mineral trader stating that “Following the world market price is the least we can do. If you don’t do it, you lose money” [2: p.249].

The transmission from international to local prices may however have been distorted after the introduction of the Dodd-Frank act. Although artisanal mining communities were affected by the de-facto embargo[[1]](#footnote-1), mineral trade did not stop entirely. First, minerals were smuggled across the DRC’s eastern borders [8]. This was especially the case for gold, which is easy to conceal and for which most of the production was already smuggled out of the country before the introduction of Dodd-Frank [9,10]. Second, Chinese buyers, who were not affected by the Dodd-Frank act, continued to export 3T minerals from the DRC [8]. Research by the Southern Africa Research Watch indicates that buyers took advantage of the situation to buy minerals at heavily discounted prices from artisanal miners [11].

We are not particularly interested in the estimated coefficients for the mineral price variables, but rather control for them to test the robustness of our β coefficients. Controlling for international price variables rather than local prices has the advantage that they are much less likely to be endogenous to the local context; i.e. they are much less likely to be affected by the local conflict situation or fluctuations in local mineral production. For instance, the large majority of mining sites in our sample (72.3%) are gold mining sites, and the DRC supplies less than 1% of world gold production [12]. And while an estimated 10-20% of the world production of tantalum originates from the DRC [12,13], coltan (tantalum) mines only comprise 5.5% or the mining sites in our sample. The results are further robust to dropping the tantalum price x mines interactions from the analysis (results not reported but available from the authors upon request).

**References**

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1. Qualitative evidence suggests that people in mining communities could no longer afford to visit healthcare facilities or pay for their children’s schooling; moreover, the economic effects where felt throughout the eastern provinces as artisanal miners could no longer afford to pay for goods, services and agricultural products [3–6]. Using quantitative data, Parker et al. [7] further find that the probability of infant deaths increased by at least 143% in villages near artisanal mines targeted by the Dodd-Frank act. [↑](#footnote-ref-1)