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# "Volatility in the Small and in the Large: The Lack of Diversification in International Trade" By Francis Kramarz, Julien Martin and Isabelle Mejean

In this file, we describe the data and replication package for the above-mentioned paper. The analysis in this paper exploits an administrative dataset produced by the French customs, based on the "DEB files" (Déclaration d'échanges des biens). These are administrative data, which use is only permitted to researchers who have first been granted access. Getting granted access is possible for any researcher. The procedure is described into details on the following website, <a href="https://www.comite-du-secret.fr/?page\_id=2235">https://www.comite-du-secret.fr/?page\_id=2235</a>. A detailed description of these data is available in Bergounhon et al (2018).<sup>1</sup>

The replication package is made of all the codes necessary to construct the dataset, starting from the raw data provided by the customs, estimate the three models described in the paper, and construct the various tables. The analysis is run on Stata 15. The replication package is available on http://isabellemejean.com/ReplicationPackage KMM JIE.html.

The replication package is organized around two master do files:

1. "master data.do"

This dofile cleans the data and produces the datasets used in the estimation.

It also produces Figure 1, and Tables 1 & 3.

It requires the use of French Customs data (DSEE).

Before running master\_data.do, please define the global variables on lines 14-17, to define the working paths.

2. "master\_results.do" produces all the tables and figures displayed in the paper

This dofile computes all the results presented in the paper and in the appendix (Tables 4 to 6, A1 to A5, and Figures 2 and 3).

Before running master\_results.do, please define the global variables on lines 18-21, to define the working paths.

NOTE: We have three different identification strategies, based on three different sets of assumptions regarding the market structure. Tables in the appendix of the paper compare the results across models. These results are produced based on lines 26 to 66 (benchmark model), 68-92 (Monopolistic competition model) and 94-117 (Oligopolistic Competition model)

Below is a list of tables and figures in the paper and the corresponding do files.

\*\*\* Table 1. Stat on the trade network

<sup>1</sup> See Bergounhon, Lenoir and Mejean, "A guideline to French firm-level data", <a href="http://isabellemejean.com/BergounhonLenoirMejean">http://isabellemejean.com/BergounhonLenoirMejean</a> 2018.pdf and the companion website <a href="http://isabellemejean.com/FrenchCustomsData.html">http://isabellemejean.com/FrenchCustomsData.html</a>.

Produced by coverage data.do, launched in master data.do

- \*\*\* Table 3. Concentration of aggregate trade flows

  Produced by concentration.do, launched in master data.do
- \*\*\* Table 4. Summary statistics on the estimated shocks.

  Produced by stat shocks.do, launched in master results.do, line 31.
- \*\*\* Table 5. Sum stat on actual and counterfactual distributions of firm volatility Produced by counterfactual small.do, launched in master results.do, line 34.
- \*\*\* Table 6. Sum stat on actual and counterfactual distributions of aggregate volatility Produced by counterfactual\_large.do, launched in master\_results.do, line 37.
- \*\*\* Table A.1. Compare estimated shocks across models
- \* Baseline panel

Produced by stat shocks.do, launched in master results.do, line 31.

\* Monopolistic competition panel

Produced by stat shocks.do, launched in master results.do, line 75.

\* Oligopolistic competition panel

Produced by stat shocks.do, launched in master results.do, line 100.

- \*\*\* Table A.2. Compare counterfactual firm volatility across models
- \* Baseline row

Produced by counterfactual small.do, launched in master results.do, line 34.

\* Monopolistic competition row

Produced by counterfactual\_small.do, launched in master\_results.do, line 78.

\* Oligopolistic competition row

Produced by counterfactual small.do, launched in master results.do, line 103.

- \*\*\* Table A.3. Compare counterfactual aggregate volatility across models
- \* Baseline row

Produced by counterfactual\_large.do, launched in master\_results.do, line 37.

\* Monopolistic competition row

Produced by counterfactual large.do, launched in master results.do, line 81.

\* Oligopolistic competition row

Produced by counterfactual\_large.do, launched in master\_results.do, line 104.

- \*\*\* Table A.4. Compare sources of volatility across models
- \* Baseline row

Produced by counterfactual large.do, launched in master results.do, line 37.

\* Monopolistic competition row

Produced by counterfactual large.do, launched in master results.do, line 81.

\* Oligopolistic competition row

Produced by counterfactual large.do, launched in master results.do, line 104.

\*\*\* Table A.5. Check the sensitivity of the baseline results to the # of obs.

Produced by counterfactual\_small.do under various restrictions, launched in master\_results.do, lines 45, 50, 55.

### \*\*\* Figure 1

Produced by do graph\_diversification.do, launched in master\_data.do

### \*\*\* Figure 2

Produced by counterfactual\_small.do, launched in master\_results.do, line 34.

## \*\*\* Figure 3

Produced by graph\_volatility\_size.do, launched in master\_results.do, line 34.