

Description of the data and codes for the paper “**Econometric Analysis of Production Networks with Dominant Units**” by M. Hashem Pesaran and Cynthia Fan Yang.

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- **Data files**

1. “CC_allyears_new.mat”: contains the input-output data compiled by Acemoglu, Carvalho, Ozdaglar, and Tahbaz-Salehi (ACOT, 2012) and was downloaded from the supplementary web page for the paper:
<https://www.econometricsociety.org/content/supplement-network-origins-aggregate-fluctuations>
2. “W_1972-2007.xlsx” and “W_1972-2007.mat”: contain the input-output matrices compiled by Pesaran and Yang (PY, 2017), which were constructed from the input-output accounts data by the Bureau of Economic Analysis (BEA). See Appendix D of PY for further details on data source and construction. The .mat file loads faster than the .xlsx file and is provided for readers’ convenience.
3. “W_1972-2007_id.xlsx”: contains the identities of the sectors corresponding to the input-output matrices given in the data files listed in 2. Each sheet has two columns: the BEA codes and the industry titles, which were compiled based on the BEA documentation.
4. “dTN_panel_1972-1992.csv” and “dTN_panel_1997-2007.csv”: contain the unbalanced panels of network outdegrees for the two sub-samples over the period 1972-1992 and 1997-2007, respectively. The panels were constructed according to the BEA industry codes.
5. “dTN_panel_1972-1992_id.csv” and “dTN_panel_1997-2007_id.csv”: contain the identities of the sectors corresponding to data files listed in 4.

- **Codes (Matlab files)**

1. “est_delta_ACOTdata.m”: main program to estimate the degree of pervasiveness and inverse of the shape parameter of power law using the data compiled by ACOT. Results are presented in Tables 7 and 8 in PY. (Functions “est_delta.m”, “plfit.m”, and “stdzW.m” are needed to run this program.)
2. “est_delta_BEAdata.m”: main program to estimate the degrees of dominance of the most pervasive sectors and reports the corresponding identities using the data compiled by PY. Results are presented in Tables 9, 10 and 11. (Function “est_delta.m” is needed to run this program.)
3. “est_delta.m”: function to perform the proposed extremum estimation procedure given a panel of network outdegrees.

4. “plfit.m”: function to implement the feasible MLE approach by Clauset, Shalizi and Newman (2009) and is available at Aaron Clauset’s website:
<http://tuvalu.santafe.edu/~aaronc/powerlaws/>
5. “stdzW.m”: function to standardize a given matrix such that each row sums to one.

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