HOMOPHILY AND TRANSITIVITY MATTER FOR FREE TRADE AGREEMENTS

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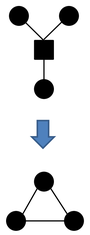
MOTIVATION

- Recent research mainly uses dyadic analyses to study the determinants of FTAs, which neglect the complexity of the topic
- We aim to investigate whether transitivity and homophily are drivers of FTA network formation, applying methods from social network analysis that goes beyond dyadic relations

APPROACH

- Data on Regional Trade Agreements is retrieved from the WTO, data on network attributes from the Freedom House Organization
- Preferential Scope Agreements (PSA) are excluded from the analysis. The EU is count as a single country
- FTAs are disaggregated according to the bilateral ties, i.e., a FTA with three countries will be displayed as three bilateral ties



DESCRIPTIVE STATISTICS

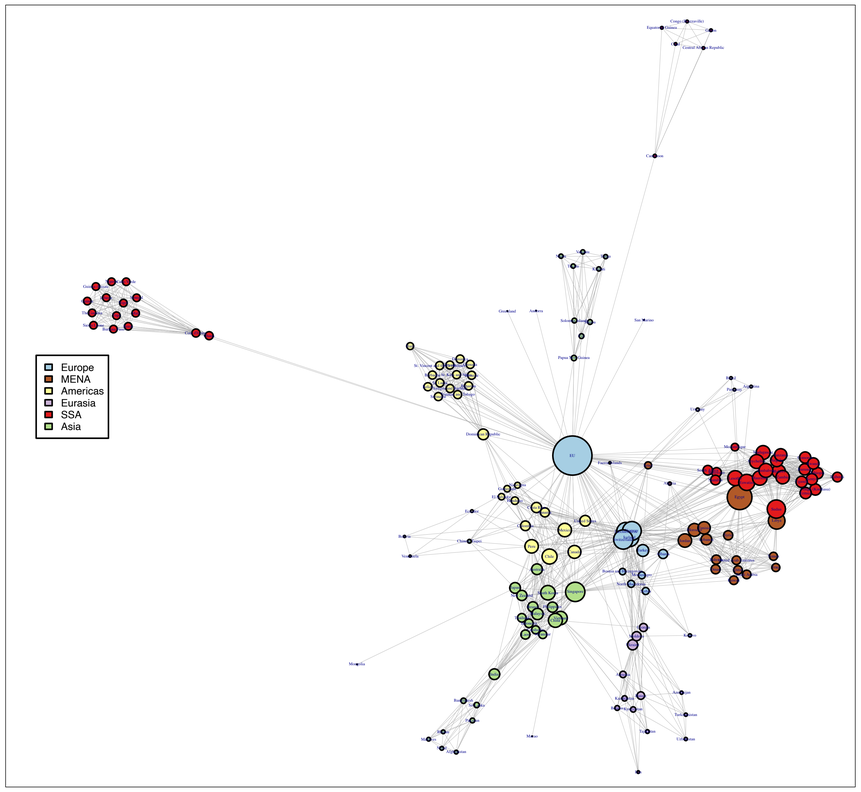
Centrality

- The EU ranks highest in the degree and betweenness centrality, which makes it the central actor of the network
- Liechtenstein, Switzerland, Iceland and Norway have the highest eigenvector centrality

Density

- Only 10% of all potential FTAs are realized
- The mean distance between two countries is 2.71, which is significantly higher than the mean in randomized networks with the same metrics (2.08)

HOMOPHILY AND TRANSITIVITY IN THE GLOBAL FTA NETWORK



1. Transitivity

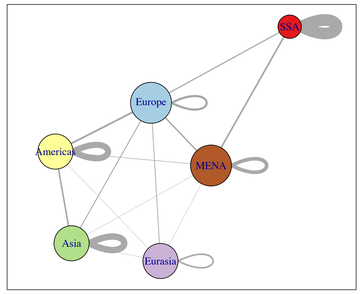
- The probability that two countries that have a common FTA partner also have a common agreement is 64%
- This is significantly higher than in randomized networks with the same metrics (9%)

➢ If two countries have a common FTA partner, there are very likely to choose an agreement

2. Homophily in Region

- Intra-regional densities of the network are on average 50%
- Inter-regional densities are on average 4%

➢ Countries located in the same region are more likely to form FTAs



3. Homophily in Political Status

- Free countries (18%) and not-free countries (17%) have higher densities than in the overall network
- Partly free countries are indifferent in the choice of their trading partner with respect to the political status

➢ Countries at the political fringes (democracies and autocracies) are more likely to form FTAs with their own kind

ERGM ESTIMATION

The ERG model is a method to examine the probability of observing a particular set of network ties

Table 1: Homophily model on FTA ties

	Dependent variable:
	Statnet
Edges	−3.678***
	(0.065)
Region	2.952***
	(0.071)
Status	0.593***
	(0.068)
Akaike Inf. Crit.	6,046.186
Bayesian Inf. Crit.	6,068.539
Note:	*p<0.1; **p<0.05; ***p<0.01

The probability of the existence of a FTA between two countries is about

- 32% higher for countries located in the same region
- 4% higher for countries with the same political status

SUMMARY

➢ The transitivity of the network is 7 times higher than in random networks with the same metrics

➢ Homophily in region and political status are both highly significant, although regional effects are more strongly pronounced as political status

➢ Further research needs to examine the incentives for autocracies to engage in FTAs and extend the analysis to the factors of countries' wealth, sectoral composition of the economy and colonial linkages

REFERENCES

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[2] Sopranzetti, S. (2018). Overlapping free trade agreements and international trade: A network approach. The World Economy, 41(6), 1549-1566.