

Meeting Report

The Globalization Risk Premium: replication

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1 Citations

The Globalization risk premium was developed by Barrot, Loualiche, and Sauvagnat (2019) to analyse the effect of globalization on the financial markets. They used the Shipping Costs to measure the foreign competition on the domestic market.

Many of their citations follow their methodology or add new proxies for the international trade dependency. For example, using the 10-k filings to understand the firm's exposure to the international market of inputs and outputs, and their offshoring of production (Hoberg and Moon, 2019). Or used the impact of tariffs policy in the perceived international competition (Bianconi, Esposito, and Sammon, 2021), finding similar results that exposure to globalization increases the risk premium.

However, a few criticised their approach, as the industry-level data will only reflect the average engagement on the foreign market. In the same industry, each company exposure can be different, and their conclusions can be biased (Bae, Elkamhi, and Simutin, 2019). Even (Barrot et al., 2018) mention the limitation of shipping costs in reflecting the unobserved costs, such as, time to ship, information barriers and contract enforcement costs, transit holdings costs, inventory costs due to possible delays on deliveries, and preparation to ship costs. That if they are not correlated with the shipping costs, will add a different conclusion to their study.

Finally, others used new dataset to predict the international trade activity around the globe, and its economic impact. They used the Automatic Identification System (AIS) that publishes in real time the location of each ship for safety purposes. Building an indicator for the world seaborne trade (Cerdeiro, 2020). We can use their method to generate an innovative analysis of the international trade on the stock returns, going a step back on the information flow ladder.

2 Empirical replication

We proceed to follow the Barrot, Loualiche, and Sauvagnat (2019) methodology to calculate the shipping costs. They have provided the *Stata* code and part of the raw data in their Internet appendix.

As the main data sources for the shipping costs, we used the Feenstra (1996) for 1974 to 1988 and the Peter Schott's website data for 1989 to 2014. After cleaning and merging the dataset with the same assumption as Barrot, Loualiche, and Sauvagnat (2019), we obtain the following summary statistics for the 439 industries analysed (Table 1 – *Stata* output).

Table 1: Summary statistics

	count	mean	sd	p1	p50	p99
Shipping costs	14350	0.056	0.038	0.002	0.047	0.224
Log Weight-to-value	8689	-1.749	1.521	-6.106	-1.739	2.156
Tariff	14350	0.043	0.051	0.000	0.027	0.261
Penetration	14350	0.169	0.192	0.000	0.099	0.887
X	14350	0.106	0.117	0.000	0.067	0.619
N	14350	0.062	0.195	-0.416	0.013	0.801
Log employment	14350	2.980	1.115	0.000	2.970	5.615
Log value added	14350	7.263	1.292	4.182	7.273	10.397
Log shipments	14350	7.998	1.294	4.944	8.031	11.204
Total factor productivity	14350	1.001	0.169	0.617	0.990	1.695

Our replication results are almost identical, with the exception that we end up with less 16 observations, even when using their *Stata* code (table 1). But these seems not to influence the main distribution metrics.

3 Conclusions

The Globalization Risk Premium used the shipping costs as proxy for the international competition on the domestic market.

Most of their citations followed this logic, adding some additional metrics to measure market competition. However, their methodology fails to consider the non-financial shipping costs and to develop a more detailed analysis.

Finally, there is still room to develop our approach either by using the same data in a different way, add the non-financial costs or to use the navigation data as proxy for international trade flows.

References

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