

Online Appendix for “Entry Costs, Financial Frictions, and Cross-Country Differences in Income and TFP”

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To assess the effect of the two frictions, an alternative calibration approach is to drop the entry cost target, and match debt/gdp, average establishment size and variance for poor countries. To match the establishment level statistics, it is necessary to re-calibrate the distribution of the productivity process for poor countries in the context of this model. Specifically, starting from the calibrated U.S. economy, we change η , ϕ and σ (ϕ is the mean and σ is the variance of the productivity process of z .) to match debt/gdp, average establishment size and variance in poor countries. The exercise if applied to every country would be computationally very costly, because it involves re-calibrating the z process for each country. Hence, we apply this exercise to the average of low income countries (the definition for the low income countries follows the Atlas method from the World Bank.) and the resulting economy will be referred as the calibrated poor economy.

The calibrated poor economy delivers an output of 35% and a TFP of 71% of the U.S. level. Note that this economy has the same entry cost f_e as the U.S. but has a different

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productivity process and different level of financial frictions from the U.S. If we increase f_e in the calibrated poor economy so that the entry cost to GDP ratio is the same as the average in the data for low income countries, the output and TFP would be 17% and 41% of the U.S. level. These differences in output and TFP relative to the calibrated U.S. economy are due to three factors: entry cost, financial frictions, and the differences in the z process.

To isolate the effect of financial frictions, entry costs, and more importantly, the interaction between the two frictions, we can do a similar analysis as that in table 3 of the paper. But, the comparison with the U.S. economy would not give the pure effect of these frictions, because the z process in this calibrated poor economy is different from the calibrated U.S. economy. To explore the pure effect of these frictions, we derive a new baseline economy by removing financial frictions from the calibrated poor economy. This baseline has the same level of f_e and η as the calibrated U.S. economy but has a different z process. Hence the decomposition based on this new baseline gives the pure effect of each friction. Next, we will use this new baseline to do similar decompositions as that in table 3 of the paper. The results are reported in table A. All the results reported are relative to the new baseline economy.

The first column reports the results from the calibrated poor economy relative to the new baseline economy. This case is similar to case 3 in table 3 of the paper as f_e is set to the U.S. level and η is set to the average level of low income counties. The second column reports the results with financial friction on capital accumulation only, which is similar to case 4 in table 3 as f_e is set to the U.S. level, η is the average level of low income counties, but the borrowing constraint is imposed only on the financing of capital and the fixed production cost. The third column reports the results with financial friction on entry only, which is similar to case 5 in table 3 as f_e is set to the U.S. level, η is the average level of low income counties, but the borrowing constraint is imposed only on the financing of entry. As in table 3 of the paper, the third column represents the contribution of the interaction between

financial frictions and entry costs to cross-country income and TFP differences. It is clear that the numbers reported in table A are very close to the numbers in the corresponding columns of table 3 for the low income countries. For completeness, the last column in table A reports the results with the entry cost set at the average of low income countries in the data for the calibrated poor economy, which is similar to the first case in table 3 as both f_e and η are set at the average level of low income countries, and the borrowing constraints are imposed on both capital accumulation and entry. Evidently, the numbers reported are also very close to that in the first case of table 3.

Table A: Decomposition of the Contributions of the Two Frictions

		calibrated poor	financial friction on capital only	financial friction on entry only	LIC entry cost
Y					
	LIC	0.15	0.47	0.27	0.07
TFP					
	LIC	0.37	0.88	0.38	0.22
$\frac{K}{Y}$					
	LIC	0.20	0.20	1	0.21