# Additional Results to

# "Bank Competition and Financial Stability: Much Ado About Nothing?"

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# Abstract

In this online appendix we evaluate the robustness of our results by excluding estimates that use concentration-based measures for the definition of competition in the banking sector and provide further robustness checks using various estimation methods and sub-samples of data. Our main results remain unchanged.

- **Keywords:** Bayesian model averaging, bank competition, financial stability, publication selection bias, meta-analysis
- **JEL Codes:** C83, C11, G21, L16

The main body of the manuscript is available at http://meta-analysis.cz/competition.

#### B. Excluding Estimates Based on Concentration

In this section we evaluate the robustness of our results using a more homogeneous data set. We exclude the estimates in which market structure measures, such as concentration ratios and HHI, are used as proxies for competitiveness in the banking sector. There are several reasons why the estimates constructed using concentration measures might not be fully comparable to the rest of the literature. For example, Claessens and Laeven (2004) conclude that concentration is an unsuitable proxy for competition and that the two measures, concentration and competition, highlight different banking sector characteristics. Furthermore, Beck (2008, p. 17), in his literature survey, argues that "market structure measures such as concentration ratios are inadequate measures of bank competition. Higher concentration might result in more stability through channels other than lack of competitiveness, such as improved risk diversification." Therefore, a higher degree of market concentration does not necessarily imply less competition.

After excluding the concentration-stability estimates from our sample, we are left with 345 reported coefficient estimates from regressions where competition is measured by either the Lerner index, the H-statistic or the Boone index. This robustness check is extensive and has the same structure as the baseline analysis presented in the previous sections; it summarizes the new data set, tests for publication bias, and attempts to quantify the "best-practice" estimate of the competition-stability nexus. We show that the conclusions from this robustness check are similar to our main results.

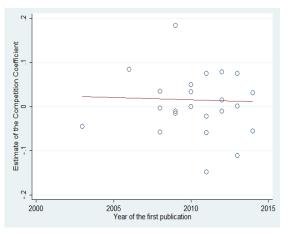
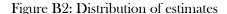
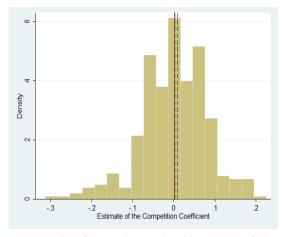


Figure B1: Time evolution of estimates

Notes: The figure depicts the median PCCs of the pure competition coefficient estimates (the PCCs of the  $\beta$  estimates from equation (1)) reported in individual studies. The horizontal axis measures the year when the first drafts of studies appeared in Google Scholar. The line shows the linear fit.



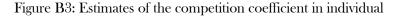


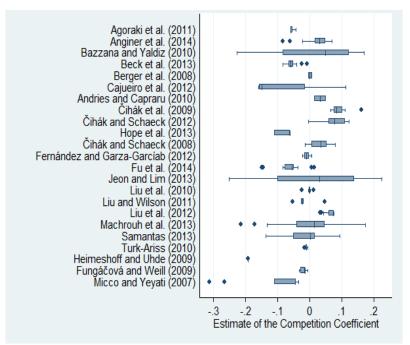
Notes: The figure shows the histogram of the PCCs of the pure competition coefficient estimates (the PCCs of the  $\beta$  estimates from equation (1)) reported in individual studies. The solid vertical line denotes the mean of all the PCCs. The dashed lines denote the mean of the study-level medians and the mean of the PCCs of the estimates reported in studies published in peer-reviewed journals.

Figure B1 plots the medians of the "pure" (that is, homogeneous) competition-stability coefficient estimates against the first year of publication of the study from which they are collected. Once again we observe an increasing spread among the reported coefficient estimates over time. The slight upward trend in the reported estimates for the entire sample is now replaced by a similarly slight downward tendency.

Figure B2 displays the histogram of the PCCs of the competition estimates. The solid line depicts the mean PCC value over all studies, which equals 0.0011, while the black dashed line denotes the mean of the study-level medians (0.0104). Additionally, the red dashed line shows the mean PCC of the estimates published in journals (0.0016). In sum, these statistics are statistically insignificant in all cases, consistent with the results reported earlier for the whole sample, and imply very little impact of bank competition on financial stability.

Figure B3 depicts the partial correlation coefficients of the pure competition coefficient estimates from equation (1) as reported in individual studies. After omitting the concentration-stability coefficient estimates from the sample, the number of individual studies decreases from 31 in the original sample to 23. The more homogeneous sample shows similar values of within-and between-study heterogeneity in the reported results.





Notes: The figure shows a box plot of the PCCs of the competition coefficient estimates reported in individual studies when the concentrationstability estimates are omitted. Full references for the studies included in the meta-analysis are available in the online appendix.

Following the structure of the main analysis, Table B1 presents the simple means of the PCCs of the pure competition coefficient estimates for all countries as well as for developed and developing economies. The means of the estimates weighted by the inverse of the number of estimates reported per study are negative for all country groups, though they are again close to 0 and not significant at the 5% level (and not economically significant according to the guidelines by Doucouliagos, 2011). The unweighted means are, on the other hand, positive, but also close to 0 and insignificant. Both the weighted and unweighted means appear to be slightly larger for developed countries, as was the case in the baseline analysis as well.

Table B1:	Simple means	of the PCCs	of the pure of	competition	coefficient

	Unweighted			Weighted			No. of
	Mean	95% Conf	. Interval	Mean	95% Coi	nf. Interval	estimates
All	0.001	-0.019	0.021	-0.016	-0.041	0.009	345
Developed	0.011	-0.009	0.030	-0.008	-0.049	0.033	109
Developing							
and transition	0.004	-0.036	0.044	-0.024	-0.061	0.012	83

Notes: The table presents the mean PCCs of the competition coefficient estimates (the PCCs of the  $\beta$  estimates from equation (1)) over all countries and for selected country groups. The confidence intervals around the mean are constructed using standard errors clustered at the study level. In the right-hand part of the table the estimates are weighted by the inverse of the number of pure competition estimates reported per study.

Following the main analysis in Section 4, we test for the presence of publication bias in the literature. Figure B4 presents funnel plots for all the estimates and for the median estimates per study. It appears that the funnels are quite symmetrical and that positive and negative estimates, as well as significant and insignificant estimates, are reported in the literature. Overall, visual examination of the data does not point to strong publication bias.

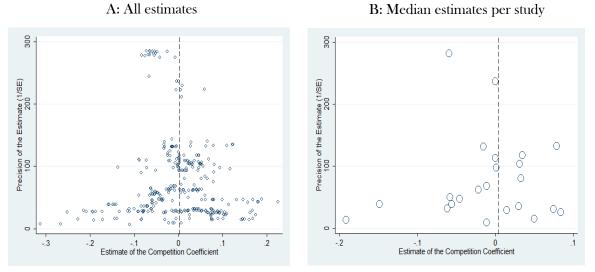


Figure B4: Funnel plots do not suggest substantial publication bias

Notes: In the absence of publication bias the funnel should be symmetrical around the most precise PCC of the estimates of the competition coefficient (the PCCs of the  $\beta$  estimates from equation (1)). The dashed vertical lines denote the mean of the PCCs of all the estimates in Figure 4A and the mean of the median PCCs of the estimates reported in the studies in Figure 4B.

Next, we turn to a more formal test for the presence of publication bias: the funnel asymmetry test. We follow the steps explained in detail in Section 4 and investigate if there is a correlation between the pure competition coefficient estimates (that is, after excluding the concentration-stability estimates) and their standard errors. Table B2 reports the results. The estimates obtained in all the regressions are very similar to those for the whole sample in Table B2. The estimates of the underlying effect beyond the bias are all significant at least at the 5% level, but again close to zero. According to Doucouliagos' (2011) guidelines, these estimates point to no interplay between competition and stability. In a similar vein, the new regressions yield comparable estimates of publication bias to those of the whole sample. In contrast to the main analysis, however, the magnitude of the publication bias for estimates reported in published studies does not appear to be higher than that for unpublished manuscripts. Moreover, the underlying effect beyond publication bias also does not seem to differ between published and unpublished studies.

Unweighted regressions	FE	FE_Published	Instr	Instr_Published
SE (publication bias)	-1.855**	-1.881**	-2.059***	-2.237***
Constant (effect beyond bias)	0.048**	0.054**	0.053***	0.064***
No. of estimates	345	272	345	272
No. of studies	23	17	23	17
Weighted regressions		FE FE_Published		Published
SE (publication bias)	-1	.683***	-1.697***	
Constant (effect beyond bias)	0.	032***	0.	026***
No. of estimates		345	( 2	272
No. of studies		23		17

Table B2: Funnel asymmetry tests suggest the presence of publication bias

Notes: The table presents the results of equation (6). The standard errors of the regression parameters are clustered at the study level. Published = we only include published studies. Fixed Effects = we use study dummies. Instrument = we use the logarithm of the number of observations in equation (1) as an instrument for the standard error and employ study fixed effects. The regressions in the bottom half of the table are estimated by weighted least squares, where the inverse of the number of estimates reported per study is taken as the weight. \*\*\*, \*\*, and \* denote statistical significance at the 1%, 5%, and 10% level.

Table B3 presents the results of the heteroskedasticity-corrected funnel asymmetry tests. By weighting the equations by precision, the estimation now places more weight on more precise pure competition coefficient estimates. In contrast to the main analysis in Table B3, the evidence for publication bias now appears to be widespread across different estimation techniques and specifications. The estimates of the magnitude of publication bias are also larger in absolute terms and statistically significant at least at the 10% level. In line with the main analysis, the estimates of the true effect are similar to those presented in the previous table, and are close to zero. According to the guidelines of Doucouliagos and Stanley (2013) for interpreting the funnel asymmetry test, our results point to substantial publication bias when we exclude all concentration-stability estimates.

Unweighted regressions	FE	FE_Published	Instr	Instr_Published
1/SE (effect beyond bias)	0.024	0.064*	0.039**	0.050**
Constant (publication bias)	-2.210*	-4.651*	-3.285***	-3.744***
No. of estimates	345	272	345	272
No. of studies	23	17	23	17
Weighted regressions		FE	FE_1	Published
1/SE (effect beyond bias)	0.021		0	.062**
Constant (publication bias)	-2.207*		-5.369**	
No. of estimates	345		272	
No. of studies		23		17

Table B3: Heteroskedasticity-corrected funnel asymmetry tests

Notes: The table presents the results of the regression specified in equation (7). The standard errors of the regression parameters are clustered at the study level. Published = we only include published studies. Fixed Effects = we use study dummies. Instrument = we use the logarithm of the number of observations in equation (1) as an instrument for the standard error and employ study fixed effects. The regressions in the bottom half of the table are estimated by weighted least squares, where the inverse of the number of estimates reported per study is taken as the weight. \*\*\*, \*\*, and \* denote statistical significance at the 1%, 5%, and 10% level.

Finally, following the baseline analysis, we apply the "best-practice" estimation described at the end of Section 5 to the subsample containing only pure competition coefficient estimates. Due to insufficient convergence of the MCMC algorithm to the underlying analytical distribution in the BMA exercise for the reduced data set, a new set of variables influencing the pure competition coefficient cannot be determined. For this reason, we use the same definition of best practice and plug in the sample means and sample maxima for the same variables as discussed in Section 5, but using OLS estimates for the more homogeneous data set. The resulting coefficients are presented in Table B4. For both weighted and unweighted equations, the estimated competition coefficient for developed countries is again larger than that for developing and transition countries. Nevertheless, none of the estimates in Table B4 is significant at the 5% level. Overall, we conclude that, after collecting all estimates from the literature and applying various meta-analysis methods, there appears to be no apparent relationship between bank competition and financial stability.

Best practice	Weighted				Unweighted			
Dest practice	Estimate 95% Conf. Int.		Diff.	Estimate	95% Conf. Int.		Diff.	
All	0.014	-0.046	0.075	0.030	-0.033	-0.067	0.001	-0.034
Developed	0.033	-0.037	0.102	0.041	0.017	-0.030	0.064	0.006
Developing and transition	0.001	-0.073	0.074	0.025	0.001	-0.059	0.062	-0.003

Table B4: Best-practice estimates of the pure competition coefficient

Notes: The table presents estimates of the competition coefficient for selected country groups implied by the analysis of heterogeneity and our definition of best practice. We take the regression coefficients from the regression and construct fitted values of the competition coefficient conditional on control for publication characteristics and other aspects of methodology (see the main text for details). Diff. = the difference between these estimates and the means reported in Table 9. The confidence intervals are constructed using study-level clustered standard errors estimated by OLS. The right-hand part of the table presents results based on the robustness check using unweighted regressions.

## C. Additional Robustness Checks

Unweighted regressions	Fixed Effects	Fixed Effects_Published	Instrument	Instrument_Published	
SE (publication bias)	1.240	-0.346	-1.613	-2.070	
Constant (effect beyond bias)	-0.048	0.025	0.050	0.093	
No. of estimates	217	162	217	162	
No. of studies	15	11	15	11	
Weighted regressions	Fixed Effects		Fixed Effects_Published		
SE (publication bias)	1.623		-0.353		
Constant (effect beyond bias)	-0.069		-0.002		
No. of estimates	217		162		
No. of studies	No. of studies 15		11		

Table C1: Funnel asymmetry tests - policy institutions studies excluded

Notes: The table presents the results of the regression specified in equation (6) after all studies whose authors were affiliated with policy (non-academic) institutions were excluded. The standard errors of the regression parameters are clustered at the study level. Published = we only include published studies. Fixed Effects = we use study dummies. Instrument = we use the logarithm of the number of observations in equation (1) as an instrument for the standard error and employ study fixed effects. The regressions in the bottom half of the table are estimated by weighted least squares, where the inverse of the number of estimates reported per study is taken as the weight. \*\*\*, \*\*\*, and \* denote statistical significance at the 1%, 5%, and 10% level.

Table C2: Funnel asymmetry tests - policy institutions interaction included

Unweighted regressions	Fixed Effects	Fixed Effects_Published
SE (publication bias)	1.240	-0.346
SE interaction with policy dummy	-3.025	-1.617
Constant (effect beyond bias)	0.010	0.048
No. of estimates	598	376
No. of studies	31	21
Weighted regressions	Fixed Effects	Fixed Effects_Published
SE (publication bias)	1.623	-0.353
SE interaction with policy dummy	-3.256	-1.310
Constant (effect beyond bias)	-0.012	0.020
No. of estimates	598	376

Notes: The table presents the results of the regression specified as follows:  $C = \alpha + \beta SEPCC + \gamma SEPCCD_{policy} + \mu$ , where  $D_{policy}$  equals 1 when authors of a study are affiliated with policy institutions. The standard errors of the regression parameters are clustered at the study level. Published = we only include published studies. Fixed Effects = we use study dummies. The regressions in the bottom half of the table are estimated by weighted least squares, where the inverse of the number of estimates reported per study is taken as the weight. \*\*\*, \*\*, and \* denote statistical significance at the 1%, 5%, and 10% level.

Unweighted regressions	Fixed Effects	Fixed Effects_Published	Instrument	Instrument_Published
SE (publication bias)	-2.137	-3.542	-1.532**	-3.409***
Constant (effect beyond bias)	0.051	0.138	0.036**	0.133***
No. of estimates	425	203	425	203
No. of studies	21	11	21	11
Weighted regressions	Fixed Effects		Fixed Effects_Published	
SE (publication bias)	-	2.409	-4.068	
Constant (effect beyond bias) 0.0		0.063 0.140		0.140
No. of estimates		425	203	
No. of studies 2		21		11

Table C3: Funnel asymmetry tests - studies published in the same journal excluded

Notes: The table presents the results of the regression specified in equation (6) after studies published in the same journal were excluded. The standard errors of the regression parameters are clustered at the study level. Published = we only include published studies. Fixed Effects = we use study dummies. Instrument = we use the logarithm of the number of observations in equation (1) as an instrument for the standard error and employ study fixed effects. The regressions in the bottom half of the table are estimated by weighted least squares, where the inverse of the number of estimates reported per study is taken as the weight. \*\*\*, \*\*, and \* denote statistical significance at the 1%, 5%, and 10% level.

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Unweighted regressions	Fixed Effects	Effects_Published
SE (publication bias)	-2.137	-3.542
SE interaction with repetition dummy	0.635	2.041
Constant (effect beyond bias)	0.051	0.097
No. of estimates	598	376
No. of studies	31	21
Weighted regressions	Fixed Effects	Fixed Effects_Published
SE (publication bias)	-2.409	-4.068
SE interaction with repetition dummy	0.911	2.570
Constant (effect beyond bias)	0.051	0.085
No. of estimates	598	376
No. of studies	31	21

#### Table C4: Funnel asymmetry tests – repetition dummy included

Notes: The table presents the results of the regression specified as follows:  $C = \alpha + \beta SEPCC + \gamma SEPCCD_{repetition} + \mu$ , where  $D_{repetition}$  equals 1 when studies are published in the same journal. The standard errors of the regression parameters are clustered at the study level. Published = we only include published studies. Fixed Effects = we use study dummies. The regressions in the bottom half of the table are estimated by weighted least squares, where the inverse of the number of estimates reported per study is taken as the weight. \*\*\*, \*\*, and \* denote statistical significance at the 1%, 5%, and 10% level.

Unweighted regressions	Fixed Effects	Fixed Effects_Published	Instrument	Instrument_Published
SE interaction with positive dummy	1.646***	1.806***	2.469***	2.131***
SE interaction with negative dummy	-1.974***	-2.131***	-2.435***	-2.724***
Constant (effect beyond bias)	0.001	0.005	-0.005	0.006
No. of estimates	598	376	598	376
No. of studies	31	21	31	21
Weighted regressions	Weighted regressions Fixe		Fixed 1	Effects_Published
SE interaction with positive dummy		0.555		1.593*
SE interaction with negative dummy	-1.	620***	-1.688***	
Constant (effect beyond bias)		0.008	-0.005	
No. of estimates		598		376
No. of studies		31		21

Table C5: Funnel asymmetry tests - positive and negative interactions included

Notes: The table presents the results of the regression specified as follows:  $PCC = \alpha + \beta SEPCCD_{positive} + \gamma SEPCCD_{negative} + \mu$ , where  $D_{positive} = 1$  when PCC > 0 and  $D_{negative} = 1$  when PCC < 0. The standard errors of the regression parameters are clustered at the study level. Published = we only include published studies. Fixed Effects = we use study dummies. Instrument = we use the logarithm of the number of observations in equation (1) as an instrument for the standard error and employ study fixed effects. The regressions in the bottom half of the table are estimated by weighted least squares, where the inverse of the number of estimates reported per study is taken as the weight. \*\*\*, \*\*, and \* denote statistical significance at the 1%, 5%, and 10% level.

### Table C6: Coefficient testing of dummy interactions with SE from Table C5

	dumn		110. mean(din) 0	
Unweighted regressions	Fixed Effects	Fixed Effects_Published	Instrument	Instrument_Published
F-statistic/chisq statistic	40.29*** (F)	59.06*** (F)	304.03*** (chisq)	346.55*** (chisq)
Weighted regressions	Fixed Effects		Fixed E	Effects_Published
F-statistic	6.54*** (F)		16.60*** (F)	

Ho: mean(diff)=0

mean(diff)= mean(SE interaction with positive dummy - SE interaction with negative dummy)

Notes: The table presents the results of testing the equality of coefficients for dummy interactions with standard error from regression results in Table C5. Diff is the difference between the estimated coefficients at standard error interactions with positive and negative dummy from Table C5, respectively. The test results in the bottom half of the table are derived from regressions estimated by weighted least squares, where the inverse of the number of estimates reported per study is taken as the weight. \*\*\*, \*\*, and \* denote statistical significance at the 1%, 5%, and 10% level.

Unweighted regressions	Fixed Effects	Fixed Effects_Published	Instrument	Instrument_Published
SE of linear coefficient	-1.252***	-1.456***	-1.575	-1.642
Constant (effect beyond bias)	-0.002	-0.014**	0.006	-0.010
No. of estimates	71	54	71	54
No. of studies	11	8	11	8
Weighted regressions	Fixed Effects		Fixed Effects_Published	
SE of linear coefficient	0.698		-1.508***	
Constant (effect beyond bias)	-0.051		-0.020**	
No. of estimates	71		54	
No. of studies 11		11	8	

Table C7: Funnel asymmetry tests for linear coefficients only

Notes: The table presents the results of the regression specified in equation (6) for linear coefficients only in studies investigating nonlinear relationship between competition and stability. The standard errors of the regression parameters are clustered at the study level. Published = we only include published studies. Fixed Effects = we use study dummies. Instrument = we use the logarithm of the number of observations in equation (1) as an instrument for the standard error and employ study fixed effects. The regressions in the bottom half of the table are estimated by weighted least squares, where the inverse of the number of estimates reported per study is taken as the weight. \*\*\*, \*\*, and \* denote statistical significance at the 1%, 5%, and 10% level.

Table C8: Funnel asymmetry tests for quadratic coefficients only

Unweighted regressions	Fixed Effects	Fixed Effects_Published	Instrument	Instrument_Published	
SE of quadratic coefficient	1.297 1.317		1.173	1.228	
Constant (effect beyond bias)	-0.014	-0.002	-0.011	0.000	
No. of estimates	71	54	71	54	
No. of studies	11	8	11	8	
Weighted regressions	Fixe	d Effects	Fixed Effects_Published		
SE of quadratic coefficient	0.582		0.657		
Constant (effect beyond bias)	-	0.002	0.015		
No. of estimates	71		54		
No. of studies	11		8		

Notes: The table presents the results of the regression specified in equation (6) for quadratic coefficients only in studies investigating nonlinear relationship between competition and stability. The standard errors of the regression parameters are clustered at the study level. Published = we only include published studies. Fixed Effects = we use study dummies. Instrument = we use the logarithm of the number of observations in equation (1) as an instrument for the standard error and employ study fixed effects. The regressions in the bottom half of the table are estimated by weighted least squares, where the inverse of the number of estimates reported per study is taken as the weight. \*\*\*, \*\*, and \* denote statistical significance at the 1%, 5%, and 10% level.

Unweighted regressions	Fixed Effects	Fixed Effects_Published	Instrument	Instrument_Published	
SE (publication bias)	-1.683**	-1.926**	-1.632***	-2.396***	
Constant (effect beyond bias)	0.046**	0.082***	0.045***	0.098***	
No. of estimates	527	322	527	322	
No. of studies	26	18	26	18	
Weighted regressions	Fixe	ed Effects	Fixed Effects_Published		
SE (publication bias)	-1	.559***	-1.628***		
Constant (effect beyond bias)	0.	.037***	0.056***		
No. of estimates		527	322		
No. of studies		26	18		

### Table C9: Funnel asymmetry tests - non-linear estimates excluded

Notes: The table presents the results of the regression specified in equation (6) after all non-linear competition effect estimates were excluded. The standard errors of the regression parameters are clustered at the study level. Published = we only include published studies. Fixed Effects = we use study dummies. Instrument = we use the logarithm of the number of observations in equation (1) as an instrument for the standard error and employ study fixed effects. The regressions in the bottom half of the table are estimated by weighted least squares, where the inverse of the number of estimates reported per study is taken as the weight. \*\*\*, \*\*, and \* denote statistical significance at the 1%, 5%, and 10% level.

Unweighted regressions	Fixed Effects	Fixed Effects_Published	
SE (publication bias)	-1.670**	-1.900**	
SE interaction with dummy quadratic	-0.011	0.022	
Constant (effect beyond bias)	0.044 * *	0.073**	
No. of estimates	598	376	
No. of studies	31	21	
		TP' 1	
Weighted regressions	Fixed Effects	Fixed Effects_Published	
Weighted regressions SE (publication bias)	Fixed Effects -1.563***		
		Effects_Published	
SE (publication bias)	-1.563***	Effects_Published -1.631***	
SE (publication bias) SE interaction with dummy quadratic	-1.563*** -0.228	Effects_Published -1.631*** -0.231	

Table C10: Funnel asymmetry tests - interaction with dummy quadratic included

Notes: The table presents the results of the regression specified as follows:  $C = \alpha + \beta SEPCC + \gamma SEPCCD_{quadratic} + \mu$ , where  $D_{quadratic}$  equals 1 when effect estimate is taken from a study that investigates non-linear relationship between competition and financial stability. The standard errors of the regression parameters are clustered at the study level. Published = we only include published studies. Fixed Effects = we use study dummies. The regressions in the bottom half of the table are estimated by weighted least squares, where the inverse of the number of estimates reported per study is taken as the weight. \*\*\*, \*\*, and \* denote statistical significance at the 1%, 5%, and 10% level.

<b>B</b> ost prosting	Weighted (OLS)				Weighted (FE)			
Best practice	Estimate	95% C	onf. Int.	Diff.	Estimate	95% C	onf. Int.	Diff.
All	-0.07489	-0.2355	0.085724	-0.06289	0.031347	-0.29312	0.355816	0.043347
Developed	-0.00574	-0.16928	0.157792	-0.01674	-0.00696	-0.34482	0.330901	-0.01796
Developing and transition	-0.07381	-0.23651	0.088892	-0.05481	0.095038	-0.22987	0.419944	0.114038

Table C11: Best-practice estimates of the competition coefficient (frequentist methods)

Notes: The table presents estimates of the competition coefficient for selected country groups implied by Bayesian model averaging and our definition of best practice. We take the regression coefficients estimated by BMA and construct fitted values of the competition coefficient conditional on control for publication characteristics and other aspects of methodology (see the text for details). Diff. = the difference between these estimates and the means reported in Table 1. The confidence intervals are constructed using study-level clustered standard errors estimated by OLS. The right-hand part of the table presents best practice estimates derived from weighted fixed effects regressions, where the inverse of the number of estimates reported per study is taken as the weight.

Table C12: Best-practice estimates of the competition coeffcient (precision weights)

Best practice	Weighted						
Dest practice	Estimate	95% Co	Diff.				
All	-0,10093	-0,231245	0,0293794	-0,08656			
Developed	-0,03624	-0,166176	0,0936977	-0,04824			
Developing and transition	-0,08904	-0,215857	0,0377712	-0,08261			

Notes: The table presents estimates of the competition coefficient for selected country groups implied by Bayesian model averaging and our definition of best practice. We take the regression coefficients estimated by BMA and construct fitted values of the competition coefficient conditional on control for publication characteristics and other aspects of methodology (see the text for details). Diff. = the difference between these estimates and the means reported in Table C13. The confidence intervals are constructed using study-level clustered standard errors estimated by OLS. The table presents the results derived from OLS regressions weighted by precision, i.e. inverse of the standard error of estimates.

Table C13: Estimates of the competition coeffcient by country groups

	Weighted (SE)			Weighted			No. of
	Mean	95% Conf. Int.		Mean	95% Conf. Int.		estimates
All	-0,014	-0,041	0,012	-0.012	-0.035	0.011	598
Developed	0,012	-0,007	0,031	0.011	-0.030	0.052	201
Developing and transition	-0,006	-0,015	0,002	-0.019	-0.051	0.012	194

Notes: The table presents the mean PCCs of the competition coefficient estimates (the PCCs of the  $\beta$  estimates from equation (1)) over all countries and for selected country groups. The confidence intervals around the mean are constructed using standard errors clustered at the study level. In the right-hand part of the table the estimates are weighted by the inverse of the number of estimates reported per study. In the left-hand part of the table the estimates are weighted by precision, i.e. inverse of the standard error of estimates.