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INCOME INEQUALITY, GLOBALIZATION, AND COUNTRY RISK: A CROSS-COUNTRY ANALYSIS

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Abstract. Guided by the assessments of globalization in its broader sense, this paper explores the impact of globalization in terms of a salient aspect of economic, social and political on income inequality for a more comprehensive dataset of 121 countries from 1984 to 2014. We also investigate whether the correlations between globalization and inequality vary with economic, financial, and political country risk indicators. Our empirical results reveal that globalization deteriorates income distribution, but economic and financial stability can mitigate the adverse effect. In addition, lower-income or non-OECD countries generally have higher inequality caused by globalization. Knowledge of these relationships can help the government to formulate more specific policies aiming at improving the income distribution.

Keywords: income inequality, globalization, country risk.

JEL Classification: C33, G28, O15.

Introduction

Two obvious facts that have attracted scholarly attention are the development in global integration and a noticeable deterioration of income distribution in many countries (Antràs, de Gortari, & Itskhoki, 2017). For instance, during the period 1980–2015, the top 10% income share has increased in all five large world regions with a remarkable upward trend of the KOF Index of Globalization. While literature has identified the determinants of income distribution, few have analyzed the connection between globalization and income disparity. Globalization is a process of convergence and homogenization, with economic, social, and political structures becoming more alike driven by the worldwide diffusion of international trade, capital flows, technological transfer, and cultural exchanges (Cerny, 1996; Rugman,

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2001). Although such changes may be beneficial to economic activities, we have no clear understanding of whether increasing inequality is the result of continued globalization. This question is somewhat unresolved and needs further investigation. In this paper, a comprehensive assessment of countries with different dimensions of globalization indicators helps resolve this debate.

The theoretical literature mainly focuses on various aspects of economic globalization and provides conflicting predictions on the globalization-inequality nexus through many different potential mechanisms. From the viewpoint of trade openness, the standard Heckscher-Ohlin (HO) mechanism and Stolper-Samuelson (SS) trade theorem provide a conceptual framework for analyzing trade-inequality linkage. These theories suggest that in a model with skilled and unskilled labors, the impact of trade varies with relative factor abundance and productivity differences. In this regard, trade openness is relatively more harmful to unskilled labors through decreasing income from unskilled labors and increasing income from capital in developed countries, thereby raising inequality within these countries. On the other hand, trade openness is relatively more beneficial to unskilled labors through increasing economic opportunities for unskilled labors, thereby lowering inequality. As to foreign direct investment (FDI), some earlier works indicate that capital inflows raise workers' productivity in the host country, thus resulting in narrowing the income difference (Mundell, 1957). Others, however, argue that capital inflows raise the demand of skilled workers compared with low-skilled, causing widening the inequality (Feenstra & Hanson, 1996). From the viewpoint of restrictions on capital account, one notable aspect is that financial globalization fosters risk sharing (Kose, Prasad, & Terrones, 2009). In this regard, countries can improve consumption smoothing and lower consumption volatility, thereby reducing income inequality[1]. However, another view argues that financial liberalization could come with crisis contagion due to its potential adverse risk-taking effects (Kose et al., 2009; Lane, 2013). Financial crisis associated with economic downturn may hurt the poor and increase inequality. These ambiguous findings leave regulators and policymakers with scant guidance and little consensus on the potential influence of globalization. In addition, the previous data limitations restrict the analysis solely to the single dimension of globalization only[2]. Using the KOF globalization database, our work aims to formulate a clearer understanding of the nexus between diverse measurements of globalization and inequality.

There is a small but increasing interest in the linkage between country risk and income inequality. From the economic and financial aspects, it is commonly advocated that economic and financial conditions are crucial in determining income distribution (Beck, Demirgüç-Kunt, & Levine, 2007; Demirgüç-Kunt & Levine, 2009). As pointed out by Furceri and Loungani (2018), financial globalization may increase financial access to the wealthy and

[1] Breen and García-Peñalosa (2005) indicate that macroeconomic volatility have a permanent effect on income distribution through the risk perception of risk. Higher consumption and growth volatility increase the perception of risk involved in economic decisions leading to lower wage demand and higher labour supply, and thereby increasing inequality.

[2] Although the overall importance of globalization for economic activities has been emphasized in the literature, there is less agreement on how to measure globalization in a consistent manner. The great majority of the research has focused on several indicators of financial integration without considering other important aspects of globalization.

thus rising inequality where financial institutions are weak. On the contrary, in the presence of sound institutions, this globalization may improve income distribution under better consumption smoothing and lower volatility. For the political angle, it is highlighted the legal system and institutions are essential for income distribution (Glaeser, Scheinkman, & Shleifer, 2003; Tebaldi & Mohan, 2010). In addition, several studies suggest that institutional quality may change the relationship between financial development, liberalization and income disparity (Delis, Hasan, & Kazakis, 2014; De Haan & Sturm, 2017). In summary, while the impacts of such country risk on income disparity have been investigated, previous studies have not considered the conditional effects of country risk when analyzing the impact of globalization on inequality. Adopting International Country Risk Guide (hereafter, ICRG) indexes, our study provides additional evidence to fill the literature gap.

Using a more comprehensive yearly dataset of 121 countries from 1984 to 2014, this paper not only assesses the impacts of globalization on income inequality, but also discusses how country risk shape the above-mentioned relation. The contributions of this research are fivefold. First, we extend the existing research by examining how economic, social, and political globalizations affect income inequality. Second, the two-step GMM dynamic panel estimator is applied to control the endogeneity. It is useful in amending the omitted variable bias and the inconsistency caused by reverse causality. Third, we incorporate the important role of country risks. Our analyses thus help explain the previous conflicting findings. Fourth, we further investigate the individual effects of subcomponents of economic risk, financial risk, and political risk. Fifth, to address the homogeneity problem in the panel data, countries are separated into high- and low-income, OECD and non-OECD groups.

The remainder of the article proceeds as follows. Section 1 presents the theoretical foundations and surveys relevant literature on income inequality. Section 2 outlines the methodology. Section 3 describes the data and their sources, while the results are assessed in Section 4. Finally, the last section concludes.

1. Theoretical foundations and related literature

A sizable body of literature has learned the evolution of globalization and its relation to economic growth (Dawson, 2003; Dreher, 2006; Neto & Veiga, 2013; Lee, Lee, & Chiou, 2017a). Following such interest, some researchers have begun paying close attention to possible determinants of income distribution. An important strand of the debate is that the institutions and policies associated with globalization and liberalization may have an enhancing influence on economic activities, but with the sacrifice of income distribution (Das & Mohapatra, 2003; Bergh & Nilsson, 2010; De Haan & Sturm, 2017).

Nevertheless, the discussion on globalization-inequality nexus remains scarce. Previous contributions to this topic have tended to measure economic globalization using various indicators of openness, such as flows of trade, international capital flows, and restrictions on the capital account. As mentioned earlier, the standard trade theory of HO and SS postulate that trade openness reduces the wage gap between high and low-skilled labor in less developed countries (LDCs). Conversely, trade liberalization will deteriorate the income distribution in developed countries which have more abundant high-skill factors (Asteriou,

Dimelis, & Moudatsou, 2014; Turnovsky & Rojas-Vallejos, 2018). As to the perspective of international capital flows, Mundell (1957) argues FDI inflows would increase labor income and decrease the firm's profitability, thereby improving inequality in capital-scarce countries. On the contrary, this effect would increase inequality in capital-abundant countries. As noted by Feenstra and Hanson (1997), the relative demand for skilled labor raises with FDI. When considering the outsourcing activities, DCs decrease demand for less-skilled labor, which rise income inequality, while LDCs raises the demand for less-skilled labor, which lessen inequality. With regard to capital account restrictions, Bumann and Lensink (2016) present a theoretical model showing that capital account liberalization narrows income gap only after certain financial depth has been achieved. Differently, Furceri and Loungani (2018) find that the inequality-widening effect of capital account openness is stronger in countries with weak financial development and financial inclusion.

Empirical evidence is also inconclusive due to a wide range of methodologies and different countries and periods as samples for the empirical analyses. Noteworthy, globalization is a composite process encompassing cultural, social, economic, and political effects (Held, McGrew, Goldblatt, & Perraton, 2000). The various dimensions of globalization may not uniformly affect income inequality. Several arguments in the literature suggest that not only political integration but also social integration are relevant to inequality (Dreher & Gaston, 2008; Bergh & Nilsson, 2010). From the social aspect, Atkinson (1997) argues that wage gaps come from n shifts in the demand for skill and changes in social norms. As to political perspective, Dreher and Gaston (2007) find declining unionization and decentralized wage bargaining are likely to increase inequality.

Only few researches have looked over the influence of diverse aspects of globalization on inequality. Based on the KOF Index, Dreher and Gaston (2008) show that globalization exacerbates income differences in OECD economies. Their empirical results show no robust impact on inequality in LDCs. Following this vein, Bergh and Nilsson (2010) further investigate how globalization and liberalization increase income gap by adopting the KOF Index, the Economic Freedom Index (EFI), and the Standardized World Income Inequality Database (hereafter, SWIID). Evidence shows that trade liberalization, deregulation as well as social globalization have a robust positive effect on inequality. They conclude that economic freedom reforms rise inequality mostly in DCs, while social aspect of globalization is more significant in LDCs. The detailed survey of related studies is provided in Table A1.

2. Methodology

In current paper, we explore the influence of globalization on inequality. To account for potential endogeneity problem in the data, we start with two-step GMM estimation. The benchmark model is:

$$INEQ_{i,t} = \alpha_1 INEQ_{i,t-1} + \alpha_2 GLOB_{\mathrm{i,t}} + \beta z_{i,t} + \eta_i + \varepsilon_{i,t}, \quad (1)$$

where i identifies the cross-sectional unit, and t denote the time period. The Variable $INEQ_{i,t}$ represent income inequality. The term $GLOB_{i,t}$ comprises different aspects of globalization, while term $z_{i,t}$ includes control variables. Term α_1 is the estimated persistence coefficient. Finally, η_i is the country-specific effect, and $\varepsilon_{i,t}$ is the error term.

The dynamic GMM estimator of Arellano and Bond (1991) controls for unobserved country-specific effects by taking the first-differences. Thus, the previous equation can be rewritten as:

$$\Delta INEQ_{i,t} = \alpha_1 \Delta INEQ_{i,t-1} + \alpha_2 \Delta GLOB_{i,t} + \beta \Delta z_{i,t} + \Delta \varepsilon_{i,t}, \quad (2)$$

where Δ is the first-difference operator. Consistency of the estimator relies on the validity of the instruments. Following Blundell and Bond (2000), we consider the Sargan test and the Arellano-Bond test. The former examines the validity of the instruments, while the latter test for no second-order serial correlation.

The examination in Equation (1) allows us to discover the influence of globalization on inequality. However, the aforementioned linkage may vary with country risk. In this regard, the benchmark model is modified by incorporating the interaction term as:

$$INEQ_{i,t} = \alpha_1 INEQ_{i,t-1} + \alpha_2 GLOB_{\mathrm{i,t}} + \alpha_3 GOLB_{i,t} \times RC_{\mathrm{i,t}} + \beta z_{i,t} + \eta_i + \varepsilon_{i,t}, \quad (3)$$

where, $RC_{i,t}$ comprises different aspects of country risk. This equation enables us to check if globalization has impacts on inequality and if the inclusion of country risk variables will alter the globalization-inequality relationship or not. The parameters α_2 and α_3 capture the direct and conditional effect of globalization, respectively. Based on these parameters, we explore four hypotheses as follows:

(i) When $\alpha_2 > 0$ and $\alpha_3 > 0$, globalization have an enhancing effect on inequality, and the country risk ratings further increase this effect. In other words, globalization deteriorates income distribution, and this deleterious effect is stronger where country risk is low.

(ii) When $\alpha_2 > 0$ and $\alpha_3 < 0$, globalization have an enhancing effect on inequality, and the country risk ratings further decrease this effect. In other words, globalization deteriorates income distribution, but this deleterious effect is weaker where country risk is low.

(iii) When $\alpha_2 < 0$ and $\alpha_3 > 0$, globalization have a reducing effect on inequality, and the country risk ratings further decrease this effect. In other words, globalization improves income inequality, and this favorable effect is weaker where country risk is low.

(iv) When $\alpha_2 < 0$ and $\alpha_4 < 0$, globalization have a reducing effect on inequality, and the country risk ratings further increase this effect. In other words, globalization improves income inequality, and this favorable effect is stronger where country risk is low.

3. Data description

We use an annual dataset across 121 countries from 1984 to 2014. Table A2 and A3 of Appendix offer information on countries covered. The Gini coefficients are taken from Solt's (2009) SWIID, with 0 being more equal distribution and 100 being less equal distribution. To proxy for globalization, we adopt Dreher's (2006) KOF, with 1 being low and 100 being high. The measure for country risk takes ICRG constructed by the PRS Group. Compare to other credit rating systems, e.g., Moody's and S&P ratings, the ICRG provides detailed and consistent monthly ratings for 140 countries dating back to 1984. In addition, the ICRG rating provides multidimensional assessments of country risk, which facilitate the comparative assessments for investors (Lee, Lee, & Ning, 2017b; Lee & Lee, 2018, 2019). It comprises of 22 variables, under three subcategories of risk. The economic risk ratings provide measures of a

country's economic conditions, while the financial risk ratings reflect the ability to meet its financial obligations. The political risk ratings evaluate a country's socioeconomic conditions and political stability. Higher the rating score denotes lower risk. In addition, consistent with the extensive literature, other control variables, including inflation, GDP per capita, government expenditure, credit to the private sector, population, education, and life expectancy, are included in our analysis. These variables come from World Development Indicators [WDI] (2015). All detailed description of variables is given in Table A4 of Appendix.

To make valid comparisons of the influence of different country risk, we assess the separate effects of 22 sub-factors of country risk. Among them are 5 economic risks, 5 financial risks and 12 political risks. For revealing the separate effect for different country groups, we split our country samples into high- and low-income groups as well as OECD and non-OECD based on their income level and development status. Tables A2 and A3 give the list of country groups.

4. Empirical results

4.1. The basic discovery

One concern in our current specifications may be the potential endogeneity of the lagged dependent variable. Another possible endogeneity comes from country risk because it is determined by economic and political factors (Pástor & Veronesi, 2012). To account for these endogeneity biases, the lagged variables of income inequality and country risk are used as possible instrumental variables. Table 1 reports the estimation results for Equation (1) by using two-step GMM dynamic panel estimator. Columns (1)–(4) reflects the effects of overall, economic, social, and political globalizations. The validity of the instruments is assessed by the Sargan test and second-order autocorrelation test. All specifications pass both tests, confirming valid instruments. For the persistence measures, all these specifications show the persistence of income inequality. As to the globalization effect, overall globalization is significantly and positively related to inequality, which appears to be impelled by economic and political globalization. These results suggest that globalization deteriorates income distribution, which is consistent with Dreher and Gaston (2008), Bergh and Nilsson (2010), Ezcurra and Rodríguez-Pose (2013), and De Haan and Sturm (2017)[3].

Regarding the effects of control variables, evidence reveals that most of estimates reach statistical significance. The coefficient of INF is significantly positive, suggesting that inequality increase with inflation, which is in line with Beck et al. (2007), Dobson and Ramlogan-Dobson (2010). Conversely, GDPPC and CREDIT are significantly negative, implying that inequality decrease with economic and financial development. They are consistent with the findings of Beck et al. (2007), Gimet and Lagoarde-Segot (2011). Results also show that LNPOP has a significantly enhancing effect, while LIFEEXP has a significantly diminishing effect. However, GOVEXP and EDU are insignificant.

[3] We also consider the direct impact of country risk and the famous U curve by adding the square term of globalization index. As shown in Table A5 of Appendix, evidence shows that one or the other of the globalization indicators becomes insignificant when we incorporate them in models simultaneously.

Table 1. Income inequality and globalization, dynamic GMM analysis

	Model-1			Model-2			Model-3			Model-4		
	Coef.		*S.E.*	*Coef.t*		*S.E.*	*Coef.*		*S.E.*	*Coef.*		*S.E.*
Gini(-1)	0.655	***	0.011	0.657	***	0.011	0.658	***	0.011	0.657	***	0.010
OVERGLOB	0.020	***	0.006									
ECOGLOB				0.010	**	0.005						
SOCGLOB							0.002		0.006			
POLGLOB										0.012	***	0.004
INF	0.001	**	3.48E–04	0.001	**	3.03E–04	0.001	**	3.36E–04	0.001	**	3.38E–04
LNGDPPC	–1.449	***	0.297	–1.253	***	0.292	–1.228	***	0.295	–1.435	***	0.297
GOVEXP	0.003		0.010	0.010		0.011	0.003		0.009	–0.008		0.010
CREDIT	–0.004	**	0.002	–0.004	*	0.002	–0.004	**	0.002	–0.004	***	0.002
LNPOP	2.316	***	0.451	3.114	***	0.440	3.334	***	0.414	2.840	***	0.441
EDU	0.003		0.003	0.002		0.003	0.004		0.003	0.006	*	0.003
LIFEEXP	–0.128	***	0.025	–0.158	***	0.026	–0.150	***	0.028	–0.147	***	0.029
Observations	1741			1741			1741			1741		
AR(2)	(0.218)			(0.105)			(0.097)			(0.068)		
Sargan test	(0.378)			(0.320)			(0.407)			(0.382)		

Notes: p-values are in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.\ 1$.

To further account for the conditional effect country risk, Tables 2–5 present the estimated results for the extended model of Equation (3). In Table 2, we provide the estimation results when overall globalization index is considered. Columns (1)–(3) reflect the interaction effects of economic, financial and political risks associated with overall globalization. The coefficients of globalization are significantly positive in columns (1)–(2), illustrating that after accounting for economic and financial risks, the inequality-widening effect still exists. The interaction term between globalization and financial risk rating is negatively associated with income inequality. Recall that higher ICRG rating scores denote lower risk. The inequality-widening effect lessens with financial stability[4]. This finding is similar to Furceri and Loungani (2018) who report that financial globalization causes a larger increase in inequality for weak financial institutions countries. In other words, financial system stability is a crucial prerequisite for the efficient allocation of resources creating conditions to lighten the deleterious impact of globalization. As far as the political effects are concerned, we find that the influence of globalization becomes insignificant. Instead, the effects of political risk interacting with globalization are positively associated with inequality. The positive sign of the interaction term suggests that a decrease in political risk would further enhance the inequality through globalization. De Haan and Sturm (2017) find that the inequality-widening effect of liberalization is higher when a country has a better quality of political institutions.

[4] The coefficient of our interest here is $dINEQ/dGLOB = \alpha_2$ in Equation (3) which tell us about the size of impact for globalization. After considering the heterogeneity of country risk, the net effect of globalization can be estimated by $dINEQ/dGLOB = \alpha_2 + \alpha_3 \times RC$. After accounting for economic risk, the net impact of globalization would be $dINEQ/dGLOB = 0.024 - 0.004 \times 0.71 = 0.021$ as the average level of economic risk is 0.71. This effect is lower than the impact of globalization without taking into account the country risk.

Table 2. The effects of overall globalization under separate aspects of country risk

	Model-1			Model-2			Model-3		
	Coef.		*S.E.*	*Coef.*		*S.E.*	*Coef.*		*S.E.*
Gini(-1)	0.661	***	0.012	0.659	***	0.012	0.661	***	0.011
OVERGLOB	0.024	***	0.007	0.018	***	0.006	0.003		0.011
OVERGLOB×ECO	−0.004		0.003						
OVERGLOB×FIN				−0.006	**	0.003			
OVERGLOB×POL							0.009	**	0.004
INF	0.001	**	4.3E−04	0.001	**	2.9E−04	0.001	**	3.5E−04
LNGDPPC	−1.177	***	0.319	−1.076	***	0.295	−1.348	***	0.309
GOVEXP	0.007		0.012	0.005		0.010	−0.006		0.010
CREDIT	−0.006	**	0.003	−0.004	**	0.002	−0.001		0.002
LNPOP	2.262	***	0.473	2.987	***	0.438	1.690	***	0.400
EDU	0.001		0.003	4.7E−05		0.003	0.004		0.003
LIFEEXP	−0.135	***	0.028	−0.156	***	0.025	−0.093	***	0.028
Observations	1741			1741			1741		
AR(2)	(0.367)			(0.075)			(0.385)		
Sargan test	(0.545)			(0.416)			(0.424)		

Notes: p-values are in parentheses. *** *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

It is noteworthy that several studies assume that economic freedom is exogenous to inequality (e.g., Scully, 2002; Carter, 2007). While Berggren (1999) discusses the importance of detecting the potential reverse causality, their empirical results indicate no serious problem of endogeneity. However, some recent studies argue that globalization may well be both a cause and an effect of inequality (see, for example, Gradstein, 2007; Bergh & Nilsson, 2010, 2014; Graafland & Lous, 2018). In this regard, one concern in our current specifications may be the endogeneity problem due to potential reverse causality from income inequality to globalization.

Following Boubakri, Cosset, Debab, and Valéry (2013), we first conduct causality tests in both directions. The bivariate heterogeneous panel causality test of Dumitrescu and Hurlin (2012) is utilized. The results of Table A6 support the bi-directional relation, which means the reverse causality from inequality to globalization should be examined. The dynamic GMM estimators provided earlier already settle endogeneity bias and reverse causality running from income inequality to globalization. This approach has been widely used to handle the problems of joint endogeneity (Dreher & Gaston, 2008; Bergh & Nilsson, 2010; Becerra, Cavallo, & Scartascini, 2012; Boubakri et al., 2013).

In addition, we further use some econometric methods to rule out the reverse causality. As mentioned above, one potential source of bias in these specifications is the possible endogeneity of globalization and country risk. Berggren (1999), for example, argues that it cannot be completely excluded the possibility that economic freedom is influenced by income inequality. In his analysis, this concern is addressed by the freedom observations

being prior in time to all of the income equality observations. Similar strategy is used by Adam (2008), Galor, Moav, and Vollrath (2009), Bergh and Nilsson (2010, 2014), Becerra et al. (2012), Ezcurra and Rodríguez-Pose (2013), Bennett and Nikolaev (2017), Graafland and Lous (2018) in the related literature. Following this vein, we also replicate the analysis by regressing income inequality on lagged globalization and country risk. Table A7 of Appendix summarizes the estimated results for globalization and country risk indexes. These results are consistent with our main hypothesis.

Following Bergh and Nilsson (2010), Becerra et al. (2012), the present analysis conducts a cross-sectional model to minimize reverse causality issues by using the end-period Gini and the period averages of the explanatory variables. Table A8 of Appendix presents the estimation results. Although the globalization indicator becomes insignificant, the interaction term between globalization and country risk rating is still negatively associated with income inequality. These results provide robust evidence that verifies our preliminary finding that that globalization is beneficial to income distribution for those with lower economic, financial, and political risks.

To explore how disparate aspects of globalization affect income inequality, we perform the analysis with the subcomponents of globalization. Tables 3–5 provide the estimated results when economic, social, or political globalization is separately adopted. From the economic globalization viewpoint, the estimation results are rather similar to those of overall globalization. Evidence shows that globalization deteriorates income distribution, but financial stability can mitigate the aforementioned adverse effect. As to the social globalization perspective, the estimation results reveal that a higher level of globalization worsens inequality, but economic and financial stabilities mitigate the adverse effect of globalization. Therefore, for strategic and policy initiatives to reduce income gap, economic and financial stability should take on a greater priority. Different from economic and social globalization, economic and financial risk play little role in affecting the political globalization-inequality nexus. When the effects of economic, social, and political globalization are conditional on political aspect of country risk, the impacts of these dimensions of globalization have become insignificant or even negative[5]. However, the interaction effects of globalization and political risk are significantly positive in most cases.

Table 3. The effects of economic globalization under separate aspects of country risk

	Model-1			Model-2			Model-3		
	Coef.		*S.E.*	*Coef.*		*S.E.*	*Coef.*		*S.E.*
Gini(-1)	0.660	***	0.013	0.661	***	0.012	0.661	***	0.010
ECOGLOB	0.015	**	0.006	0.015	***	0.005	0.003		0.007
ECOGLOB×ECO	−0.005		0.003						
ECOGLOB×FIN				−0.009	***	0.002			

[5] As shown in Tables 3–5, when the effects of globalization are conditional on political risk, the coefficients of economic and social globalization on inequality are insignificant, while political globalization has a significantly negative impact on inequality.

End of Table 3

	Model-1			Model-2			Model-3		
	Coef.		*S.E.*	*Coef.*		*S.E.*	*Coef.*		*S.E.*
ECOGLOB×POL							0.006		0.003
INF	0.001	**	4.1E−04	0.001	**	2.9E−04	0.001	**	3.2E−04
LNGDPPC	−0.819	**	0.338	−1.003	***	0.248	−1.147	***	0.309
GOVEXP	0.017		0.014	0.008		0.011	0.002		0.011
CREDIT	−0.006	**	0.003	−0.004	**	0.002	−0.001		0.002
LNPOP	2.979	***	0.477	3.541	***	0.460	2.277	***	0.400
EDU	9.1E−05		0.003	−0.002		0.003	0.003		0.003
LIFEEXP	−0.171	***	0.029	−0.171	***	0.024	−0.130	***	0.028
Observations	1741			1741			1741		
AR(2)	(0.250)			(0.060)			(0.242)		
Sargan test	(0.501)			(0.414)			(0.382)		

Notes: p-values are in parentheses. ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$.

Table 4. The effects of social globalization under separate aspects of country risk

	Model-1			Model-2			Model-3		
	Coef.		*S.E.*	*Coef.*		*S.E.*	*Coef.*		*S.E.*
Gini(-1)	0.663	***	0.007	0.665	***	0.006	0.661	***	0.006
SOCGLOB	0.017	***	0.003	0.013	***	0.003	3.53E−04		0.003
SOCGLOB×ECO	−0.003	***	0.001						
SOCGLOB×FIN				−0.004	***	0.001			
SOCGLOB×POL							0.007	***	0.002
INF	0.001	***	1.4E−04	0.001	***	1.5E−04	0.001	***	1.3E−04
LNGDPPC	−1.767	***	0.047	−1.627	***	0.057	−1.784	***	0.058
GOVEXP	−0.008		0.005	−0.007		0.005	−0.010	**	0.004
CREDIT	−0.004	***	0.001	−0.004	***	0.001	−0.002	*	0.001
LNPOP	1.951	***	0.127	2.342	***	0.141	1.709	***	0.115
EDU	0.001		0.001	0.001		0.001	0.003	**	0.001
LIFEEXP	−0.080	***	0.006	−0.099	***	0.007	−0.068	***	0.006
Observations	1741			1741			1741		
AR(2)	(0.491)			(0.132)			(0.187)		
Sargan test	(0.587)			(0.582)			(0.570)		

Notes: p-values are in parentheses. ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$.

Table 5. The effects of political globalization under separate aspects of country risk

	Model-1			Model-2			Model-3		
	Coef.		*S.E.*	*Coef.t*		*S.E.*	*Coef.*		*S.E.*
Gini(-1)	0.663	***	0.011	0.659	***	0.011	0.659	***	0.011
POLGLOB	0.013	***	0.005	0.010	**	0.004	−0.019	***	0.006
POLGLOB×ECO	−0.003		0.003						
POLGLOB×FIN				−1.9E−05		0.002			
POLGLOB×POL							0.015	***	0.003
INF	0.001	**	3.7E−04	0.001	**	2.7E−04	0.001	**	3.9E−04
LNGDPPC	−1.298	***	0.320	−1.158	***	0.284	−1.418	***	0.329
GOVEXP	−0.009		0.012	−0.005		0.010	−0.008		0.011
CREDIT	−0.006	***	0.002	−0.004	**	0.002	−3.78E−04		0.002
LNPOP	3.030	***	0.456	2.925	***	0.424	1.521	***	0.327
EDU	0.004		0.003	0.004		0.003	0.005		0.003
LIFEEXP	−0.156	***	0.031	−0.164	***	0.027	−0.051	*	0.030
Observations	1741			1741			1741		
AR(2)	(0.088)			(0.033)			(0.742)		
Sargan test	(0.517)			(0.400)			(0.387)		

Notes: p-values are in parentheses. ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$.

4.2. Evidence for the sub-indexes of country risk

The sub-indexes of economic, financial, and political risks are analyzed when overall globalization index is adopted as a proxy of globalization in Tables 6–8. Table 6 indicates that the coefficients of the interaction term between globalization and sub-indexes of economic risk, namely, the risk for per capita GDP (ER1), and its growth (ER2), inflation (ER3), and current account (ER5), are significantly negative, suggesting that countries with smaller economic risk are more inclined to mitigate the inequality-widening impact. As to the relative importance of these sub-indexes, evidence shows that ER1 has a larger impact on globalization-inequality relation. However, the interaction term between globalization and the risk for budget balance (ER4) is significantly positive, suggesting that a decrease in risk for budget balance would further enhance the inequality through globalization.

In terms of financial risk, Table 7 shows that the interaction term between globalization and all sub-indexes are significantly negative, except for the risk of current account (FR3). Similar to the conditional effect of economic risk, these results indicate that countries with smaller financial risk are more inclined to mitigate the inequality-widening impact. Moreover, the coefficients of the risk for international liquidity (FR4) and debt service (FR2) show that international liquidity and debt risk have a considerably larger impact on inequality.

Table 6. The effects of globalization under sub-dimensions of economic risk

	Model-1			Model-2			Model-3			Model-4			Model-5		
	Coef.		*S.E.*	*Coef.*		*S.E.*	*Coef.*		*S.E.*	*Coef.*		*S.E.*	*Coef.*		*S.E.*
Gini(-1)	0.658	***	0.012	0.656	***	0.011	0.649	***	0.012	0.655	***	0.012	0.659	***	0.011
OVERGLOB	0.016	**	0.007	0.024	***	0.007	0.032	***	0.007	0.008		0.007	0.028	***	0.007
OVERGLOB×ER1	−0.082	***	0.023												
OVERGLOB×ER2				−0.005	*	0.003									
OVERGLOB×ER3							−0.019	*	0.010						
OVERGLOB×ER4										0.035	***	0.008			
OVERGLOB×ER5													−0.030	***	0.007
INF	0.001	**	3.51E−04	0.001	**	3.93E−04	0.001	**	3.79E−04	0.001	*	3.22E−04	0.001	**	3.26E−04
LNGDPPC	−1.265	***	0.318	−1.235	***	0.303	−1.640	***	0.314	−1.470	***	0.338	−1.464	***	0.301
GOVEXP	0.010		0.011	0.005		0.012	−0.002		0.013	0.025	*	0.013	0.008		0.012
CREDIT	−0.004	**	0.002	−0.005	**	0.002	−0.003	*	0.002	−0.003		0.002	−0.007	***	0.002
LNPOP	2.167	***	0.563	2.184	***	0.481	2.113	***	0.457	2.721	***	0.484	2.421	***	0.506
EDU	0.003		0.003	0.002		0.003	0.006	*	0.003	−4.65E−04		0.003	0.007	**	0.003
LIFEEXP	−0.121	***	0.031	−0.135	***	0.026	−0.139	***	0.024	−0.128	***	0.026	−0.133	***	0.029
Observations	1741			1741			1741			1741			1741		
AR(2)	(0.117)			(0.291)			(0.288)			(0.055)			(0.142)		
Sargan test	(0.382)			(0.422)			(0.330)			(0.510)			(0.363)		

Notes: p-values are in parentheses. ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$.

Table 7. The effects of globalization under sub-dimensions of financial risk

	Model-1			Model-2			Model-3			Model-4			Model-5		
	Coef.		*S.E.*	*Coef.*		*S.E.*	*Coef.*		*S.E.*	*Coef.*		*S.E.*	*Coef.*		*S.E.*
Gini(-1)	0.655	***	0.011	0.644	***	0.012	0.649	***	0.011	0.652	***	0.013	0.655	***	0.011
OVERGLOB	0.021	***	0.006	0.023	***	0.007	0.027	***	0.006	0.045	***	0.008	0.024	***	0.007
OVERGLOB×FR1	−0.016	**	0.008												
OVERGLOB×FR2				−0.033	**	0.015									
OVERGLOB×FR3							−0.010		0.009						
OVERGLOB×FR4										−0.046	**	0.020			
OVERGLOB×FR5													−0.018	***	0.003
INF	0.001	**	3.38E−04	0.001	**	3.41E−04	0.001	**	3.86E−04	0.001	**	3.86E−04	0.001	**	4.08E−04
LNGDPPC	−1.386	***	0.312	−1.510	***	0.380	−1.604	***	0.293	−1.807	***	0.295	−1.427	***	0.267
GOVEXP	0.004		0.011	−0.026	**	0.012	−0.006		0.010	−0.005		0.011	0.001		0.010
CREDIT	−0.003	*	0.002	−0.001		0.002	−0.004	**	0.002	−0.002		0.002	−0.004	**	0.002
LNPOP	2.494	***	0.432	2.196	***	0.521	1.966	***	0.467	0.755		0.469	2.797	***	0.422
EDU	0.002		0.003	0.006		0.004	0.006	*	0.003	0.003		0.003	4.97E−05		0.003
LIFEEXP	−0.134	***	0.025	−0.124	***	0.034	−0.119	***	0.027	−0.069	**	0.032	−0.135	***	0.026
Observations	1741			1741			1741			1741			1741		
AR(2)	(0.156)			(0.211)			(0.287)			(0.613)			(0.278)		
Sargan test	(0.387)			(0.343)			(0.277)			(0.458)			(0.389)		

Notes: p-values are in parentheses. ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$.

Table 8. The effects of globalization under sub-dimensions of political risk

	Model-1			Model-2			Model-3			Model-4			Model-5			Model-6		
	Coef.		*S.E.*	*Coef.*		*S.E.*	*Coef.*		*S.E.*	*Coef.*		*S.E.*	*Coef.*		*S.E.*	*Coef.*		*S.E.*
Gini(-1)	0.659	***	0.011	0.651	***	0.004	0.646	***	0.010	0.657	***	0.011	0.654	***	0.012	0.659	***	0.011
OVERGLOB	0.009		0.007	0.026	***	0.002	0.037	***	0.008	0.012		0.007	0.023	***	0.007	0.019	***	0.006
OVERGLOB×PR1	0.018	***	0.006															
OVERGLOB×PR2				−0.056	***	0.003												
OVERGLOB×PR3							−0.042	***	0.009									
OVERGLOB×PR4										0.035	***	0.010						
OVERGLOB×PR5													0.031	**	0.015			
OVERGLOB×PR6																0.108	***	0.030
INF	0.001	**	3.13E−04	0.001	***	1.23E−04	0.001	**	3.36E−04	0.001	**	3.74E−04	0.001	**	3.85E−04	0.001	**	4.92E−04
LNGDPPC	−1.156	***	0.309	−1.447		0.059	−1.114	***	0.311	−1.403	***	0.294	−1.262	***	0.304	−1.094	***	0.304
GOVEXP	0.009		0.011	−0.008		0.004	0.002		0.010	−0.002		0.009	−0.013		0.010	0.006		0.012
CREDIT	−0.004	**	0.002	−0.005	**	0.001	−0.004	**	0.002	−0.002		0.002	−0.001		0.002	−0.004	**	0.002
LNPOP	2.235	***	0.465	1.503	***	0.096	2.543	***	0.589	1.784	***	0.441	0.936	*	0.505	2.055	***	0.392
EDU	0.001		0.003	−0.001		0.001	0.005		0.003	0.005	*	0.003	0.007	**	0.003	0.004		0.003
LIFEEXP	−0.112	***	0.025	−0.103	***	0.007	−0.189	***	0.027	−0.107	***	0.027	−0.107	***	0.030	−0.141	***	0.026
Observations	1741			1741			1741			1741			1741			1741		
AR(2)	(0.215)			(0.067)			(0.121)			(0.352)			(0.380)			(0.703)		
Sargan test	(0.396)			(0.357)			(0.255)			(0.395)			(0.286)			(0.442)		

	Model-7			Model-8			Model-9			Model-10			Model-11			Model-12		
	Coef.		*S.E.*	*Coef.*		*S.E.*	*Coef.*		*S.E.*	*Coef.*		*S.E.*	*Coef.*		*S.E.*	*Coef.*		*S.E.*
Gini(-1)	0.665	***	0.012	0.656	***	0.012	0.652	***	0.011	0.645	***	0.012	0.655	***	0.011	0.648	***	0.010
OVERGLOB	0.012		0.009	−0.011		0.009	−0.009		0.009	−0.002		0.009	0.027	***	0.007	0.003		0.009
OVERGLOB×PR7	0.096	*	0.054															
OVERGLOB×PR8				0.270	***	0.053												
OVERGLOB×PR9							0.209	***	0.033									
OVERGLOB×PR10										0.338	***	0.051						
OVERGLOB×PR11													−0.048		0.041			
OVERGLOB×PR12																0.287	***	0.104
INF	0.001	**	3.00E−04	0.001	***	4.77E−04	0.001	***	4.73E−04	0.001	**	0.001	0.001	**	3.40E−04	0.001	***	3.52E−04
LNGDPPC	−1.395	***	0.320	−1.333	***	0.323	−1.293	***	0.327	−1.222	***	0.316	−1.539	***	0.271	−1.802	***	0.257
GOVEXP	−0.003		0.011	−0.001		0.013	0.008		0.010	−0.006		0.012	−0.003		0.010	−0.004		0.010
CREDIT	−0.002		0.002	−0.004	**	0.002	−0.004	**	0.002	−0.004	**	0.002	−0.003		0.002	−0.006	***	0.001
LNPOP	1.659	***	0.461	1.225	***	0.468	1.430	***	0.473	0.710		0.543	1.947	***	0.467	2.051	***	0.427
EDU	0.004		0.003	0.006	*	0.003	0.010	***	0.003	0.003		0.003	0.002		0.003	0.002		0.003
LIFEEXP	−0.104	***	0.027	−0.067	**	0.027	−0.083	***	0.029	−0.075	**	0.029	−0.105	***	0.024	−0.079	***	0.029
Observations	1741			1741			1741			1741			1741			1741		
AR(2)	(0.168)			(0.981)			(0.865)			(0.975)			(0.207)			(0.364)		
Sargan test	(0.517)			(0.544)			(0.492)			(0.153)			(0.307)			(0.525)		

Notes: p-values are in parentheses. ***$p < 0.01$, **$p < 0.05$, *$p < 0.\ 1$.

With regard to the political risk, Table 8 reveals that seven out of twelve statistics present insignificant impacts of globalization on income inequality when these effects are conditional on different subcomponents of political risk. This may partly explain why the effects of globalization reveal no significant results when its effects are conditional on political risk in Table 2. Most sub-indexes of political risk, such as government stability (PR1), internal conflict (PR4), external conflict (PR5), corruption (PR6), military in politics (PR7), religious tensions (PR8), law & order (PR9), ethnic tensions (PR10), and bureaucracy quality (PR12) present positive interactions, suggesting that countries experiencing improvements in these sub-indexes of political risk appear to worsen inequality. As noted by Dobson and Ramlogan-Dobson (2012), poorer individuals lack the required qualities to apply job, while unequal treatment and institutional barriers in the society restrict their job offers. In this case, the informal sector creates jobs to the poor. However, the policies of improving institutional quality such as anti-corruption have an unfavorable effect on employment and welfare in the informal sector, thereby increasing inequality. On the contrary, only a few cases such as socioeconomic conditions (PR2) and investment profile (PR3) display significantly negative effects of political risk ratings on the Gini coefficient. A decrease in these risks tends to improve the income distribution.

4.3. Evidence for different income levels

To further account for the difference of income level, Tables 9–10 report the estimation results for the high- and low-income groups[6]. Some clear patterns can be observed. First, except for the specification (3) in low-income countries, evidence shows a positive relation between globalization and the Gini coefficient in both income groups. Second, the importance of changes in different aspects of country risk to above globalization-inequality relation is confirmed. Economic and political stabilities mitigate the adverse effect in high-income group, while it is diminished with a stable economic and financial system in low-income countries. Third, different from those of economic and financial risk, evidence shows that globalization improves income distribution, but countries with less political risk are likely to decrease this favorable impact in low-income countries. Finally, the parameters of globalization and country risk are considerably larger for low-income countries suggesting that the influence from changes in globalization and country risk on inequality is stronger in low-income countries.

Turning to the control variable, the coefficients of INF are overwhelmingly significantly negative in high-income group, while those coefficients have a positive but weak correlation with inequality in low-income group. Batuo and Asongu (2015) argue inflation has either a positive or a negative effect on Gini coefficient depending on its level. Higher inflation tends to exacerbate inequality (Albanesi, 2007; Beck et al., 2007) while lower inflation tends to lower inequality (Bulíř, 2001; Lopez, 2004). Given that high-income countries are less likely to incur high inflation, the contradictory result seems reasonable. The coefficients of LNGDPPC show that the growth effects on inequality are inconsistent in high-income group.

[6] We follow 2016 World Bank data to classify countries into low-income group ($12,235 GNI per capita or less) and high-income group ($12,235 GNI per capita or more).

Table 9. Inequality, globalization, and country risk (high-income group)

	Model-1			Model-2			Model-3		
	Coef.		*S.E.*	*Coef.*		*S.E.*	*Coef.*		*S.E.*
Gini(-1)	0.609	***	0.027	0.684	***	0.047	0.594	***	0.021
GLOB	0.023	***	0.007	0.029	***	0.010	0.030	***	0.005
GLOB×ECO	−0.011	***	0.004						
GLOB×FIN				0.003		0.002			
GLOB×POL							−0.007	***	0.002
INF	−0.002	**	0.001	−0.001	**	4.5E−04	−0.002	**	0.001
LNGDPPC	0.962	***	0.303	−0.552	***	0.177	1.195	***	0.352
GOVEXP	0.006		0.016	−0.016	*	0.010	0.034	**	0.013
CREDIT	−0.002		0.003	0.003	***	0.001	0.001		0.001
LNPOP	−5.098	***	0.712	−4.322	***	0.968	−5.078	***	1.054
EDU	0.003	***	0.001	4.0E−04		0.002	0.004	***	0.001
LIFEEXP	0.133	***	0.028	0.160	***	0.040	0.076	**	0.033
Observations	638			638			638		
AR(2)	(0.987)			(0.991)			(0.914)		
Sargan test	(0.272)			(0.316)			(0.386)		

Notes: p-values are in parentheses. ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$.

Table 10. Inequality, globalization, and country risk (low-income group)

	Model-1			Model-2			Model-3		
	Coef.		*S.E.*	*Coef.*		*S.E.*	*Coef.*		*S.E.*
Gini(-1)	0.733	***	0.038	0.718	***	0.029	0.654	***	0.010
GLOB	0.035	***	0.012	0.054	***	0.012	−0.037	***	0.007
GLOB×ECO	−0.014	***	0.005						
GLOB×FIN				−0.016	***	0.005			
GLOB×POL							0.028	***	0.004
INF	2.8E−04		3.4E−04	2.8E−04		3.7E−04	0.001	**	3.0E−04
LNGDPPC	−1.718	***	0.418	−1.410	***	0.369	−1.994	***	0.194
GOVEXP	0.014	*	0.008	0.017	**	0.008	0.018	**	0.008
CREDIT	0.007		0.005	0.006		0.004	0.011	***	0.002
LNPOP	0.163		0.997	−0.559		0.704	0.807		0.503
EDU	−0.005		0.006	−0.005		0.007	0.014	***	0.004
LIFEEXP	−0.082		0.051	−0.110	***	0.037	−0.106	***	0.023
Observations	1028			1028			1028		
AR(2)	(0.827)			(0.509)			(0.569)		
Sargan test	(0.469)			(0.670)			(0.277)		

Notes: p-values are in parentheses. ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$.

It is significantly positive when the effects of globalization are conditional on economic and political risk, while the negative coefficients exist when the effects of globalization are conditional on financial risk. However, a strong negative growth-inequality relation exists in low-income group, suggesting that inequality decreases with economic growth. In addition, the coefficients of GOVEXP show inconsistent results in high-income group. However, the coefficients turn significantly positive in low-income group, suggesting greater public expenditure cause higher levels of inequality. Although the effect of LNPOP is insignificant in low-income group, evidence in high-income group shows that the Gini coefficient lessens with LNPOP, implying that population growth improves income distribution. Finally, the coefficients of LIFEEXP suggest that life expectancy deteriorates inequality in high-income group, while it improves inequality in low-income group.

4.4. Evidence for different development levels

In light of the discussion of the predictions of Heckscher-Ohlin Model, one would have expected that sample would be segmented into developed and less developed economies. For instance, existing theory suggests that trade-induced specialization patterns increase (decrease) the demand of human capital in the OECD (non-OECD) countries. In this regard, Galor and Mountford (2008) establish the diverse effect of globalization on OECD and non-OECD countries. In this subsection, we also conduct the analysis of these two subsamples in Tables 11–12. Evidence shows that globalization has a significantly positive influence on Gini coefficient in both groups. The inequality effect of globalization appears at odds with the predictions of the HO model. This result might be partly explained by skill-biased technological innovation. Through increasing imports of capital goods and technologies are complementary to skilled labor (Acemoglu, 2003). However, economic and financial stabilities strengthen the adverse effect in OECD countries, while it is diminished with financial and political stabilities in non-OECD countries. Furthermore, the estimated parameters of globalization and country risk are substantially larger for non-OECD group than that of OECD group.

In addition, the coefficients of INF are significantly positive in both groups, which conforms to our prior expectations. The coefficients of LNGDPPC are overwhelmingly significantly negative in both groups, suggesting that inequality decreases with economic growth. The influences of CREDIT are overwhelmingly significantly positive in OECD group, while they are insignificant in non-OECD group. This result suggests that inequality increases with financial development in OECD group. Although the effect of LNPOP is insignificant in non-OECD group, evidence in OECD group reveals that the Gini coefficient decrease with LNPOP, indicating that the population growth improves income inequality, which is consistent with Dreher and Gaston (2008). The coefficients of EDU are overwhelmingly significantly positive in OECD group, while they are insignificant in non-OECD group. This result suggests that inequality increases with human capital in OECD countries. Finally, the coefficients of LIFEEXP suggest that life expectancy deteriorates income distribution in OECD group, while it improves income distribution in non-OECD group.

Table 11. Inequality, globalization, and country risk (OECD group)

	Model-1			Model-2			Model-3		
	Coef.		*S.E.*	*Coef.*		*S.E.*	*Coef.*		*S.E.*
Gini(-1)	0.581	***	0.036	0.690	***	0.027	0.728	***	0.027
GLOB	0.038	***	0.006	0.016	***	0.002	0.018	***	0.003
GLOB×ECO	0.003	**							
GLOB×FIN			0.002	0.011	***	0.002			
GLOB×POL							0.004		0.002
INF	3.71E−04		0.002	0.006	***	0.001	0.003	***	0.001
LNGDPPC	−0.910	***	0.138	−0.941	***	0.183	−1.309	***	0.146
GOVEXP	0.007		0.011	−0.013		0.012	0.004		0.007
CREDIT	0.006	***	0.002	0.008	***	0.002	0.006	***	0.001
LNPOP	−3.549	***	0.702	−3.778	**	1.525	−2.115	***	0.810
EDU	0.017	**	0.006	0.007	***	0.001	0.005	***	0.001
LIFEEXP	0.047	**	0.020	0.098	***	0.034	0.087	***	0.030
Observations	587			587			587		
AR(2)	(0.992)			(0.999)			(0.991)		
Sargan test	(0.467)			(0.253)			(0.452)		

Notes: p-values are in parentheses. ***$p < 0.01$, **$p < 0.05$, *$p < 0.\ 1$.

Table 12. Inequality, globalization, and country risk (non-OECD group)

	Model-1			Model-2			Model-3		
	Coef.		*S.E.*	*Coef.*		*S.E.*	*Coef.*		*S.E.*
Gini(-1)	0.692	***	0.027	0.767	***	0.029	0.800	***	0.028
GLOB	0.058	***	0.012	0.035	***	0.012	0.045	***	0.014
GLOB×ECO	−0.006		0.008						
GLOB×FIN				−0.015	***	0.005			
GLOB×POL							−0.012	**	0.005
INF	0.001	*	2.8E−04	1.86E−04		2.6E−04	1.28E−04		1.8E−04
LNGDPPC	−2.317	***	0.460	−0.835	**	0.352	−0.788	**	0.382
GOVEXP	0.017		0.017	0.009		0.011	0.024	**	0.011
CREDIT	0.003		0.005	0.003		0.004	0.006		0.004
LNPOP	−1.145		0.882	−0.023		0.540	−0.770		0.578
EDU	−0.009		0.007	−0.003		0.007	−0.005		0.008
LIFEEXP	0.009		0.040	−0.101	***	0.021	−0.078	***	0.022
Observations	1118			1118			1118		
AR(2)	(0.715)			(0.940)			(0.609)		
Sargan test	(0.317)			(0.540)			(0.405)		

Notes: p-values are in parentheses. ***$p < 0.01$, **$p < 0.05$, *$p < 0.\ 1$.

Conclusions and implications

This paper explores the impact of economic, social, and political globalizations on income inequality for 121 countries over the period 1984–2014. Using the ICRG data, we ask whether the effect of globalization on inequality depends on different aspects of country risks. The results confirm the important impact of globalization and country risk on inequality. Evidence shows that countries with higher level of globalization are perceived as having high inequality, but the inequality-widening effect diminishes with economic or financial stability. Thus, income inequality may partially overcome by eliminating economic volatility and strengthening financial stability.

As to the effect of each sub-indexes of country risk, evidence also shows that most sub-indexes of economic and financial risk exert negative effects on income disparity. However, when the effects of globalization are conditional on different sub-indexes of political risk, the impacts of globalization become have become insignificant or even negative. Instead, the interaction effect of globalization and political risk is significantly positive in most cases. Some implications do stand out. Government should devote more effort to formulate specific policies to reduce the income gap. For example, a more specific strategy could be that of creating economic strengths and improving countries' ability to service its financial obligations.

With regard to the results of different income and development sub-panels, we find that the effects of globalization and country risks are dissimilar with these subsample groups. Low-income countries or less developed countries tend to have higher income gap caused by the same level of globalization. A country's stability in financial aspects are more likely to mitigate the inequality-widening impact in low-income or non-OECD countries. Our findings suggest that policymakers should be sensitive to changes in country risk and focus more on risk-reducing in order to improve income distribution.

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References

Acemoglu, D. (2003). Patterns of skill premia. *Review of Economic Studies*, *70*(2), 199-230. https://doi.org/10.1111/1467-937X.00242

Adam, S. (2008). Globalization and income inequality: implications for intellectual property rights. *Journal of Policy Modeling*, *30*(5), 725-735. https://doi.org/10.1016/j.jpolmod.2007.10.005

Albanesi, S. (2007). Inflation and inequality. *Journal of Monetary Economics*, *54*(4), 1088-1114. https://doi.org/10.1016/j.jmoneco.2006.02.009

Antràs, P., de Gortari, A., & Itskhoki, O. (2017). Globalization, inequality and welfare. *Journal of International Economics*, *108*, 387-412. https://doi.org/10.1016/j.jinteco.2017.07.009

Arellano, M, & Bond, S. (1991). Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations. *Review of Economic Studies*, *58*(2), 277-297. https://doi.org/10.2307/2297968

Asteriou, D., Dimelis, S., & Moudatsou, A. (2014). Globalization and income inequality: a panel data econometric approach for the EU27 countries. *Economic Modelling*, *36*, 592-599. https://doi.org/10.1016/j.econmod.2013.09.051

Atkinson, A. B. (1997). Bringing income distribution in from the cold. *Economic Journal*, *107*(441), 297-321. https://doi.org/10.1111/j.0013-0133.1997.159.x

Batuo, M. E., & Asongu, S. A. (2015). The impact of liberalization policies on income inequality in African countries. *Journal of Economic Studies*, *42*(1), 68-100. https://doi.org/10.1108/JES-05-2013-0065

Becerra, O., Cavallo, E., & Scartascini, C. (2012). The politics of financial development: the role of interest groups and government capabilities. *Journal of Banking & Finance*, *36*(3), 626-643. https://doi.org/10.1016/j.jbankfin.2011.10.017

Beck, T., Demirgüç-Kunt, A., & Levine, R. (2007). Finance, inequality and the poor. *Journal of Economic Growth*, *12*(1), 27-49. https://doi.org/10.1007/s10887-007-9010-6

Bennett, D. L., & Nikolaev, B. (2017). On the ambiguous economic freedom–inequality relationship. *Empirical Economics*, *53*(2), 717-754. https://doi.org/10.1007/s00181-016-1131-3

Berggren, N. (1999). Economic freedom and equality: friends or foes? *Public Choice*, *100*(3-4), 203-223. https://doi.org/10.1023/A:1018343912743

Bergh, A., & Nilsson, T. (2010). Do liberalization and globalization increase income inequality? *European Journal of Political Economy*, *26*(4), 488-505. https://doi.org/10.1016/j.ejpoleco.2010.03.002

Bergh, A., & Nilsson, T. (2014). Is globalization reducing absolute poverty? *World Development*, *62*, 42-61. https://doi.org/10.1016/j.worlddev.2014.04.007

Blundell, R., & Bond, S. (2000). GMM estimation with persistent panel data: an application to production functions. *Econometric Reviews*, *19*(3), 321-340. https://doi.org/10.1080/07474930008800475

Boubakri, N., Cosset, J. C., Debab, N., & Valéry, P. (2013). Privatization and globalization: an empirical analysis. *Journal of Banking & Finance*, *37*(6), 1898-1914. https://doi.org/10.1016/j.jbankfin.2012.12.014

Breen, R., & García-Peñalosa, C. (2005). Income inequality and macroeconomic volatility: an empirical investigation. *Review of Development Economics*, *9*(3), 380-398. https://doi.org/10.1111/j.1467-9361.2005.00283.x

Bulíř, A. (2001). Income inequality: does inflation matter? *IMF Staff Papers*, *48*(1), 139-159.

Bumann, S., & Lensink, R. (2016). Capital account liberalization and income inequality. *Journal of International Money and Finance*, *61*, 143-162. https://doi.org/10.1016/j.jimonfin.2015.10.004

Carter, J. (2007). An empirical note on economic freedom and income inequality. *Public Choice*, *130*(1-2), 163-177. https://doi.org/10.1007/s11127-006-9078-0

Cerny, P. G. (1996). Globalization and other stories: the search for a new paradigm for international relations. *International Journal: Canada's Journal of Global Policy Analysis*, *51*(4), 617-637. https://doi.org/10.1177/002070209605100402

Das, M., & Mohapatra, S. (2003). Income inequality: the aftermath of stock market liberalization in emerging markets. *Journal of Empirical Finance*, *10*(1-2), 217-248. https://doi.org/10.1016/S0927-5398(02)00025-7

Dawson, J. W. (2003). Causality in the freedom-growth relationship. *European Journal of Political Economy*, *19*(3), 479-495. https://doi.org/10.1016/S0176-2680(03)00009-0

De Haan J., & Sturm, J. E. (2017). Finance and income inequality: a review and new evidence. *European Journal of Political Economy*, *50*, 171-195. https://doi.org/10.1016/j.ejpoleco.2017.04.007

Delis, M. D., Hasan, I., & Kazakis, P. (2014). Bank regulations and income inequality: empirical evidence. *Review of Finance*, *118*(5), 1811-1846. https://doi.org/10.1093/rof/rft039

Demirgüç-Kunt, A., & Levine, R. (2009). Finance and inequality: theory and evidence. *Annual Review of Financial Economics*, *1*, 287-318. https://doi.org/10.1146/annurev.financial.050808.114334

Dobson, S., & Ramlogan-Dobson, C. (2010). Is there a trade-off between inequality and corruption? evidence from Latin America. *Economics Letters*, *107*(2), 102-104. https://doi.org/10.1016/j.econlet.2009.12.038

Dobson, S., & Ramlogan-Dobson, C. (2012). Why is corruption less harmful to income inequality in Latin America? *World Development*, *40*(8), 1534-1545. https://doi.org/10.1016/j.worlddev.2012.04.015

Dreher, A., (2006). Does globalization affect growth? Evidence from a new index of globalization. *Applied Economics*, *38*(10), 1091-1110. https://doi.org/10.1080/00036840500392078

Dreher, A., & Gaston, N. (2007). Has globalisation really had no effect on unions? *Kyklos*, *60*(2), 165-186. https://doi.org/10.1111/j.1467-6435.2007.00367.x

Dreher, A., & Gaston, N. (2008). Has globalization increased inequality? *Review of International Economics*, *16*(3), 516-536. https://doi.org/10.1111/j.1467-9396.2008.00743.x

Dumitrescu, E. I., & Hurlin, C. (2012). Testing for granger non-causality in heterogeneous panels. *Economic Modelling*, *29*(4), 1450-1460. https://doi.org/10.1016/j.econmod.2012.02.014

Ezcurra, R., & Rodríguez-Pose, A. (2013). Does economic globalization affect regional inequality? a cross-country analysis. *World Development*, *52*, 92-103. https://doi.org/10.1016/j.worlddev.2013.07.002

Feenstra, R. C., & Hanson, G. H. (1996). Foreign investment, outsourcing and relative wages. In R. C. Feenstra, G. M. Grossman, & D. A. Irwin (Eds.), *The political economy of trade policy: papers in honor of Jagdish Bhagwati* (pp. 89-127). Cambridge, MA: MIT Press. https://doi.org/10.3386/w5121

Furceri, D., & Loungani, P. (2018). The distributional effects of capital account liberalization. *Journal of Development Economics*, *130*, 127-144. https://doi.org/10.1016/j.jdeveco.2017.09.007

Galor, O., Moav, O., & Vollrath, D. (2009). Inequality in landownership, the emergence of human-capital promoting institutions, and the great divergence. *Review of Economic Studies*, *76*(1), 143-179. https://doi.org/10.1111/j.1467-937X.2008.00506.x

Galor, O., & Mountford, A. (2008). Trading population for productivity: theory and evidence. *Review of Economic Studies*, *75*(4), 1143-1179. https://doi.org/10.1111/j.1467-937X.2008.00501.x

Gimet, C., & Lagoarde-Segot, T. (2011). A closer look at financial development and income distribution. *Journal of Banking & Finance*, *35*(7), 1698-1713. https://doi.org/10.1016/j.jbankfin.2010.11.011

Glaeser, E., Scheinkman, J., & Shleifer, A. (2003). The injustice and inequality. *Journal of Monetary Economics*, *50*(1), 199-222. https://doi.org/10.1016/S0304-3932(02)00204-0

Graafland, J., & Lous, B. (2018). Economic freedom, income inequality and life satisfaction in OECD Countries. *Journal of Happiness Studies*, *19*(7), 2071-2093. https://doi.org/10.1007/s10902-017-9905-7

Gradstein, M. (2007). Inequality, democracy and the protection of property rights. *Economic Journal*, *117*(516), 252-270. https://doi.org/10.1111/j.1468-0297.2007.02010.x

Held, D., McGrew, A., Goldblatt, D., & Perraton, J. (2000). Rethinking globalization. In D. Held, & A. McGrew (Eds.), *Global transformations reader: an introduction to the globalization debate* (pp. 1-45). Cambridge: Polity Press.

Kose, M. A., Prasad, E. S., & Terrones, M. E. (2009). Does financial globalization promote risk sharing? *Journal of Development Economics*, *89*(2), 258-270. https://doi.org/10.1016/j.jdeveco.2008.09.001

Lane, P. R. (2013). Financial globalization and the crisis. *Open Economies Review*, *24*(3), 555-580. https://doi.org/10.1007/s11079-012-9266-0

Lee, C. C., & Lee, C. C. (2018). The impact of country risk on income inequality: a multilevel analysis. *Social Indicators Research*, *136*(1), 139-162. https://doi.org/10.1007/s11205-016-1534-8

Lee, C. C., & Lee, C. C. (2019). Oil price shocks and Chinese banking performance: do country risks matter? *Energy Economics*, *77*, 46-53. https://doi.org/10.1016/j.eneco.2018.01.010

Lee, C. C., Lee, C. C., & Chiou, Y. Y. (2017a). Insurance activities, globalization, and economic growth: new methods, new evidence. *Journal of International Financial Markets, Institutions and Money*, *51*, 155-170. https://doi.org/10.1016/j.intfin.2017.05.006

Lee, C. C., Lee, C. C., & Ning, S. L., (2017b). Dynamic relationship of oil price shocks and country risks. *Energy Economics*, *66*, 571-581. https://doi.org/10.1016/j.eneco.2017.01.028

Lopez, J. H. (2004). *Pro-growth, pro-poor: Is there a trade off?* (The World Bank Policy Research Working Paper No. 3378). Washington, DC: The World Bank. https://doi.org/10.1596/1813-9450-3378

Mundell, R. A. (1957). International trade and factor mobility. *American Economic Review*, *47*(3), 321-335. https://www.jstor.org/stable/1811242

Neto, D. G., & Veiga, F. J. (2013). Financial globalization, convergence and growth: the role of foreign direct investment. *Journal of International Money and Finance*, *37*, 161-186. https://doi.org/10.1016/j.jimonfin.2013.04.005

Pástor, L., & Veronesi, P. (2006). Uncertainty about government policy and stock prices. *Journal of Finance*, *67*(4), 1219-1264. https://doi.org/10.1111/j.1540-6261.2012.01746.x

Rugman, A. M. (2001). VIEWPOINT: the myth of global strategy. *International Marketing Review*, *18*(6), 583-588. https://doi.org/10.1108/EUM0000000006300

Solt, F. (2009). Standardizing the world income inequality database. *Social Science Quarterly*, *90*(2), 231-242. https://doi.org/10.1111/j.1540-6237.2009.00614.x

Scully, G. W. (2002). Economic freedom, government policy and the trade-off between equity and economic growth. *Public Choice*, *113*, 77-96. https://doi.org/10.1023/A:1020308831424

Tebaldi, E., & Mohan, R. (2010). Institutions and poverty. *Journal of Development Studies*, *46*(6), 1047-1066. https://doi.org/10.1080/00220380903012730

Turnovsky, S. J., & Rojas-Vallejos, J. (2018). The distributional consequences of trade liberalization: consumption tariff versus investment tariff reduction. *Journal of Development Economics*, *134*, 392-415. https://doi.org/10.1016/j.jdeveco.2018.06.001

World Development Indicators. (2015). *World Development Report*. The World Bank, Washington, DC.

APPENDIX

Table A1. Survey on globalization-inequality nexus

Authors	Measures	Sample	Method	Conclusion
Asteriou et al. (2014)	Trade / GDP Capital account openness (Chen-Ito index) FDI / GDP	EU-27 countries over 1995–2009	Panel regression models Dynamic panel GMM	Trade openness reduces inequality Capital account openness increases inequality FDI increases inequality
Antràs et al. (2017)	Trade integration	United States over 1979–2007	Quantitative exploration	Trade integration increases inequality
Feenstra and Hanson (1996)	FDI inflows	Mexico over 1975–1988	OLS and instrumental variables approach	FDI increases inequality
Bumann and Lensink (2016)	Capital account openness (Chen-Ito index)	106 countries over 1973–2008	Dynamic panel GMM	Capital account openness reduces inequality

End of Table A1

Authors	Measures	Sample	Method	Conclusion
Furceri and Loungani (2018)	Capital account openness (Chen-Ito index)	149 countries over 1970–2010	Panel regression models Dynamic panel GMM	Capital account openness increases inequality
Dreher and Gaston (2008)	KOF globalization index	100 countries over 1970–2000	Panel regression models Dynamic panel GMM	Globalization increases inequality
Bergh and Nilsson (2010)	KOF globalization index Economic Freedom Index	80 countries over 1970–2005	Panel regression models Dynamic panel GMM	Social globalization increase inequality Trade openness and deregulation increase inequality
Ezcurra and Rodríguez-Pose (2013)	KOF globalization index Economic Freedom Index	47 countries over 1990–2007	Pooled OLS approach	Economic globalization increases inequality
De Haan and Sturm (2017)	Index of Abiad et al. (2010) Economic Freedom Index	121 countries over 1975–2005	Panel regression models	Financial liberalization increases inequality
Graafland and Lous (2018)	Economic Freedom Index	21 countries over 1990–2014	Panel regression models	Economic freedom increases inequality

Table A2. List of countries classified by income level

High-income (41 countries)		Low-income (80 countries)			
Australia	Kuwait	Albania	Ecuador	Madagascar	Romania
Austria	Latvia	Algeria	Egypt	Malawi	Russian Federation
Bahamas	Lithuania	Angola	El Salvador	Malaysia	Senegal
Belgium	Luxembourg	Argentina	Gambia	Mali	Serbia
Canada	Malta	Armenia	Ghana	Mexico	Sierra Leone
Chile	Netherlands	Bangladesh	Guatemala	Moldova	South Africa
Cyprus	New Zealand	Belarus	Guinea	Mongolia	Sri Lanka
Czech Republic	Norway	Bolivia	Guinea-Bissau	Morocco	Sudan
Denmark	Poland	Botswana	Guyana	Mozambique	Suriname
Estonia	Portugal	Brazil	Honduras	Myanmar	Tanzania
Finland	Qatar	Bulgaria	India	Namibia	Thailand
France	Slovakia	Burkina Faso	Indonesia	Nicaragua	Togo
Germany	Slovenia	Cameroon	Iran	Niger	Tunisia
Greece	Spain	China	Jamaica	Nigeria	Turkey
Hungary	Sweden	Colombia	Jordan	Pakistan	Uganda

End of Table A2

High-income (41 countries)		Low-income (80 countries)			
Iceland	Switzerland	Congo, Dem. Rep.	Kazakhstan	Panama	Ukraine
Ireland	Trinidad and Tobago	Costa Rica	Kenya	Papua New Guinea	Venezuela
Israel	United Kingdom	Cote d'Ivoire	Lebanon	Paraguay	Vietnam
Italy	United States	Croatia	Liberia	Peru	Yemen
Japan	Uruguay	Dominican Republic	Libya	Philippines	Zimbabwe
Korea, Rep.					

Notes: Based on 2016 GNI per capita, countries are classified as low-income group ($12,235 or less) and high-income group ($12,235 or more).

Table A3. List of countries classified by development level

OECD (36 countries)		Non-OECD (85 countries)			
Australia	Korea, Rep.	Albania	Ecuador	Malawi	Senegal
Austria	Latvia	Algeria	Egypt	Malaysia	Serbia
Belgium	Lithuania	Angola	El Salvador	Mali	Sierra Leone
Canada	Luxembourg	Argentina	Gambia	Malta	South Africa
Chile	Mexico	Armenia	Ghana	Moldova	Sri Lanka
Czech Republic	Netherlands	Bahamas	Guatemala	Mongolia	Sudan
Denmark	New Zealand	Bangladesh	Guinea	Morocco	Suriname
Estonia	Norway	Belarus	Guinea-Bissau	Mozambique	Tanzania
Finland	Poland	Bolivia	Guyana	Myanmar	Thailand
France	Portugal	Botswana	Honduras	Namibia	Togo
Germany	Slovakia	Brazil	India	Nicaragua	Trinidad and Tobago
Greece	Slovenia	Bulgaria	Indonesia	Niger	Tunisia
Hungary	Spain	Burkina Faso	Iran	Nigeria	Uganda
Iceland	Sweden	Cameroon	Jamaica	Pakistan	Ukraine
Ireland	Switzerland	China	Jordan	Panama	Uruguay
Israel	Turkey	Colombia	Kazakhstan	Papua New Guinea	Venezuela
Italy	United Kingdom	Congo, Dem. Rep.	Kenya	Paraguay	Vietnam
Japan	United States	Costa Rica	Kuwait	Peru	Yemen
		Cote d'Ivoire	Lebanon	Philippines	Zimbabwe
		Croatia	Liberia	Qatar	
		Cyprus	Libya	Romania	
		Dominican Republic	Madagascar	Russian Federation	

Table A4. List of variables, definitions and data sources

Variable	Definition	Source
Net Gini Coefficient (*Gini*)	An assessment of income inequality, with 0 being low and 100 being high	SWIID
Overall globalization (*OVERGLOB*)	An overall assessment of economic, social and political globalizations	KOF
Economic globalization (*ECOGLOB*)	An assessment of actual flows and restriction	KOF
Social globalization (*SOCGLOB*)	An assessment of personal contact, information flows, and culture proximity	KOF
Political globalization (*POLGLOB*)	An assessment of countries' embassies in country, membership in international organizations, and participation in U.N. Security Council missions	KOF
Economic Risk Rating (*ECON*)	An assessment of risk for per capita GDP, GDP growth, inflation, budget balance, and current account, with 0 being high and 50 being low	ICRG
Financial Risk Rating (*FIN*)	An assessment of risk for foreign debt, debt service, current account, international liquidity, and exchange rate stability, with 0 being high and 50 being low	ICRG
Political Risk Rating (*POL*)	An assessment of risk for government stability, socioeconomic conditions, investment profile, internal conflict, external conflict, corruption, military in politics, religious tensions, law and order, ethnic tensions, democratic accountability, bureaucracy quality, with 0 being high and 100 being low	ICRG
Inflation (*INF*)	Annual percentage change of CPI inflation rate	WDI
GDP per capita (*LNGPDPC*)	Natural logarithm of the GDP per capita	WDI
Government expenditure (*GOVEXP*)	Government expenditures as a percentage of GDP	WDI
Private sector credit (*CREDIT*)	Financial intermediary credits as a percentage of the private sector	WDI
Population (*LNPOP*)	Natural logarithm of the population	WDI
Education (*EDU*)	Secondary school enrolment as a percentage of the population	WDI
Life expectancy (*LIFEEXP*)	Life expectancy at birth (years)	WDI

Table A5. Income inequality and globalization, dynamic GMM analysis (an additional squared term and country risk)

	Model-1			Model-2			Model-3			Model-4		
	Coef.		*S.E.*	*Coef.*		*S.E.*	*Coef.*		*S.E.*	*Coef.*		*S.E.*
Gini(-1)	0.669	***	0.020	0.620	***	0.019	0.650	***	0.019	0.664	***	0.010
OVERGLOB	0.006		0.051									
ECOGLOB				0.068	*	0.036						
SOCGLOB							0.067		0.045			
POLGLOB										0.004		0.020
$GLOB^2$	−1.24E−04		3.97E−04	−4.52E−04		2.76E−04	−0.001		4.44E−04	1.43E−05		1.56E−04
COMR	0.005		0.008	0.021	***	0.008	0.002		0.006	0.015	***	0.004
INF	5.95E−05		1.22E−04	2.79E−04		3.16E−04	1.28E−04		1.39E−04	0.001	**	3.55E−04
LNGDPPC	−1.091		0.665	−1.145	**	0.536	−1.083	*	0.581	−1.407	***	0.320
GOVEXP	−0.027		0.025	0.029		0.020	−0.017		0.024	−0.004		0.011
CREDIT	0.008	**	0.004	0.005		0.004	0.007	*	0.004	0.001		0.002
LNPOP	3.009	**	1.450	1.349		1.335	0.407		2.210	1.632	***	0.418
EDU	0.017	*	0.009	0.007		0.006	0.017	**	0.008	0.007	**	0.003
LIFEEXP	−0.235	***	0.064	−0.188	***	0.066	−0.164	**	0.069	−0.106	***	0.029
Observations	1741			1741			1741			1741		
AR(2)	(0.112)			(0.153)			(0.225)			(0.400)		
Sargan test	(0.680)			(0.159)			(0.595)			(0.510)		

Notes: p-values are in parentheses. ***$p < 0.01$, **$p < 0.05$, *$p < 0.\ 1$.

Table A6. Dumitrescu-Hurlin Granger causality test

Hypothesis:	W-Statistic	Zbar-Statistic
OVERGLOB → Gini	6.229***	19.253***
Gini → OVERGLOB	2.564***	5.106***
ECOGLOB → Gini	4.756***	13.569***
Gini → ECOGLOB	2.798***	6.011***
SOCGLOB → Gini	5.813***	17.649***
Gini → SOCGLOB	2.963***	6.648***
POLGLOB → Gini	5.287***	15.618***
Gini → POLGLOB	2.628***	5.354***

Notes: ***$p < 0.01$, **$p < 0.05$, *$p < 0.\ 1$.

Table A7. The effects of globalization under different country risks (lagged model)

	Model-1			Model-2			Model-3		
	Coef.		*S.E.*	*Coef.*		*S.E.*	*Coef.*		*S.E.*
Gini(-1)	0.667	***	0.002	0.666	***	0.002	0.668	***	0.002
Lag (OVERGLOB)	0.034	***	0.001	0.033	***	0.001	0.024	***	0.002
Lag (OVERGLOB×ECO)	–0.006	***	0.001						
Lag (OVERGLOB×FIN)				–0.007	***	0.001			
Lag (OVERGLOB×POL)							0.002		0.001
Control variables	Yes			Yes			Yes		
Observations	1404			1404			1404		
AR(2)	(0.821)			(0.551)			(0.773)		
Sargan test	(0.508)			(0.522)			(0.544)		

Notes: p-values are in parentheses. ***$p < 0.01$, **$p < 0.05$, *$p < 0.\ 1$.

Table A8. The effects of globalization under different country risks (cross-sectional model)

	Model-1			Model-2			Model-3		
	Coef.		*S.E.*	*Coef.*		*S.E.*	*Coef.*		*S.E.*
OVERGLOB	–0.046		0.163	–0.112		0.150	0.108		0.188
OVERGLOB×ECO	–0.009	**	0.004						
OVERGLOB×FIN				–0.008	**	0.003			
OVERGLOB×POL							–0.005	**	0.002
Control variables	Yes			Yes			Yes		
Observations	121			121			121		
R^2	0.256			0.250			0.272		

Notes: ***$p < 0.01$, **$p < 0.05$, *$p < 0.\ 1$.