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The Institutional Drivers of Economic Growth in the MENA Region: A Multidimensional Analysis of Direct and Mediated Effects

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Abstract

The aim of this article is to study the impact of institutional quality on economic growth in the MENA region in particular, and to identify certain institutional shortcomings. We proceeded by estimating GMM in a system on cross-sectional data for a sample of 18 countries over the period 1984-2023. The results show that political stability has a positive direct effect, as well as a positive indirect effect through the positive accumulation of human and physical capital, and a negative effect through income inequality. Corruption thus has a negative impact on economic growth, on the one hand through a reduction in human and physical capital, trade openness and political stability, and on the other through an increase in inflation and public spending. Democracy has a negative impact on economic growth through increased human capital, political stability and trade openness, while income inequality, government spending and physical capital contribute to its reduction.

Keywords: Institution, Economic Growth, Data from the Dynamic Panel (GMM).

Introduction

Over the past decades, institutional quality has emerged as a fundamental determinant of economic performance. Corruption, political instability and weak democratic governance constitute multidimensional phenomena that shape economic, political and social outcomes, particularly in developing and transition economies. Early contributions by North (1981) and Olson (1982) emphasized the central role of institutions in long-term economic development, laying the foundations for an extensive body of research showing that institutional quality influences investment, public sector efficiency, human capital accumulation and total factor productivity (Mauro, 1995; Barro, 1997; Hall & Jones, 1999). More recent evidence confirms that the rule of law, governance effectiveness and political stability remain key drivers of sustainable economic growth (Rodrik et al., 2004; Acemoglu et al., 2003). Corruption continues to be a major barrier to economic development by increasing transaction costs, distorting economic incentives and discouraging domestic and foreign investment. Recent studies (Aidt, 2020; Cooray & Dzhumashev, 2019; Okada & Samreth, 2020) demonstrate that corruption undermines institutional capacity, reduces productivity and weakens the credibility of public authorities. In countries with fragile institutions, corruption diverts public resources away from productive sectors, fuels the expansion of the informal economy, and impedes progress toward sustainable development objectives. This evidence reinforces earlier findings highlighting the negative impact of corruption on growth, investment and income distribution. Similarly, political instability represents a significant impediment to economic growth. Frequent government

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changes, social unrest and persistent geopolitical tensions increase macroeconomic uncertainty, deteriorate the business environment and discourage long-term investment. Empirical findings (Aisen & Veiga, 2013; Jong-A-Pin, 2009; Tabassam et al., 2016) show a strong and negative relationship between political instability, capital accumulation and economic growth. Recent contributions (Aizenman & Jinjark, 2021; Al Mamun et al., 2021) further demonstrate that political instability heightens fiscal vulnerability, exacerbates inflationary pressures and reduces the effectiveness of economic policies. These results confirm that the growth effects of political instability operate through both direct channels—such as weakened governance and indirect ones, including declining investment and human capital losses due to emigration.

The relationship between democracy and economic growth remains theoretically ambiguous and empirically contested. While some scholars argue that democratic institutions promote economic growth by enhancing accountability, protecting property rights and reducing social conflict (Persson & Tabellini, 2008; Doucouliagos & Ulubasoglu, 2008), others emphasize that redistributive pressures within democracies may reduce incentives to invest and slow economic expansion (Barro, 1996; Acemoglu et al., 2019). Recent literature highlights heterogeneous effects depending on development level, ethnic diversity and institutional maturity. For instance, Zuazu (2019) shows that democratic transitions improve growth in technologically leading industries but may hinder lagging ones, whereas Christmann (2018) finds that improvements in democratic quality are associated with enhanced citizen satisfaction and improved governance outcomes. Overall, the empirical findings remain mixed, especially in developing regions where democratization processes are often incomplete or unstable. These issues are particularly salient in the MENA region, where institutional fragility, recurrent political instability and high levels of corruption continue to hinder economic performance. Despite structural reforms, the region remains characterized by volatile growth, weak governance systems and persistent socio-political tensions. Recent studies (Rachdi & Saidi, 2015; Ben Ali & Sassi, 2016; Cherif & Hasanov, 2021; IMF, 2022) underscore the need to consolidate institutions, enhance transparency and strengthen democratic accountability to achieve inclusive and sustainable growth. Against this backdrop, the central question arises: to what extent do political institutions corruption, democracy and political stability—directly or indirectly influence economic growth in MENA countries? More specifically, do the different institutional components exert differentiated effects, and how do these variables interact with macroeconomic fundamentals to shape growth outcomes? This study aims to address these questions by providing an empirical assessment of the direct and indirect effects of institutional variables on economic growth in the MENA region. Using recent data and the World Governance Indicators developed by Kaufmann et al. (2003, 2005), the analysis highlights the key channels through which institutions affect economic performance and offers a comparative perspective for policy evaluation. The remainder of the paper is structured as follows. Section 1 presents the theoretical framework and reviews the literature on the effects of corruption, democracy and political instability on economic growth. Section 2 outlines the empirical methodology, data sources and model specification. Section 3 discusses the main findings, policy implications, limitations and future research directions.

3. Methodology:

We employ the System GMM estimator proposed by Blundell and Bond (1998). This estimation technique presents several advantages over alternative methods. First, it enhances cross-country

analysis by fully exploiting the time dimension of the panel data. Second, it effectively addresses endogeneity issues regardless of their sources. However, one of the main criticisms of this estimator is its tendency to generate a large set of instrumental variables, which may raise concerns regarding the reliability and validity of the estimates. Nevertheless, this class of estimators remains consistent in panels with a large number of cross-sectional units (N) and a relatively small time dimension (T), making it well suited to the structure of our sample. The Political Risk Service Group (PRS) is a private institution specializing in risk assessment that produces a comprehensive database based on monthly indicators from the International Country Risk Guide (ICRG). In this study, we rely on five institutional indicators from this source: corruption (CORR), law and order (LO), democratic accountability (DA), bureaucratic quality (QB), and government stability (GS). The scores of the first three variables range from 0 to 6, bureaucratic quality ranges from 0 to 4, while government stability ranges from 0 to 12. Higher scores reflect better institutional performance and, in the case of corruption, imply lower levels of perceived corruption. In addition, the macroeconomic control variables included in our model are obtained from the World Bank's World Development Indicators (CD-ROM 2019). These consist of real GDP per capita (in constant US dollars), physical capital stock (CHY), human capital stock (CH), government size (DEP), inflation rate (INF), Gini index (ING), and trade openness (OUV). To examine the relationship between economic growth and institutional variables in a cross-sectional analysis of 18 MENA countries (see Annex 1) over the period 1984–2018, we estimate the following econometric model:

$$\text{LGDP}_{i,t} = \alpha_i + \alpha_1 \text{LGDP}_{i,t-1} + \alpha_2 \text{ch}_{i,t} + \alpha_3 \text{chy}_{i,t} + \alpha_4 \text{LO}_{i,t} + \alpha_5 \text{BQ}_{i,t} + \alpha_6 \text{SG}_{i,t} + \alpha_7 \text{DA}_{i,t} + \varepsilon_{i,t} \quad (1)$$

Avec $i=1, \dots, 18$ $t=1984, \dots, 2023$

Where GDP is the logarithm of GDP per capita and LGDP is the lagged logarithm of GDP per capita.

α_i : The individual specific effect and $\varepsilon_{i,t}$: error term.

To examine the potential presence of collinearity among the explanatory variables, we employed the Variance Inflation Factor (VIF). As highlighted in recent methodological contributions (Daoud, 2022), VIF values below 10 indicate an acceptable level of collinearity. Our results confirm the absence of multicollinearity among the explanatory variables (Table 1).

The results of the system GMM estimation, conducted to assess the relationship between institutional variables and economic growth, are presented in Table 1. The Sargan and Hansen tests report p-values above the 5% threshold, thereby validating the relevance of the instruments used. Furthermore, in line with Roodman's (2021) recommendations, the presence of first-order autocorrelation (AR (1)) and the absence of second-order autocorrelation (AR (2)) support the consistency of the estimators. Regarding macroeconomic variables, both human capital and physical capital exert positive and statistically significant effects at the 5% level (Models 1 to 5). This finding is consistent with recent studies emphasizing the crucial role of human capital in supporting innovation diffusion and productivity gains (Hanushek, 2020; Goujon et al., 2021). Similarly, contemporary empirical research (Solikin & Fitriani, 2022; Dinh & Binh, 2023) confirms that physical capital accumulation remains a central driver of growth in emerging economies. Earlier seminal contributions by Mankiw et al. (1992) and Barro (1997) remain

relevant and aligned with recent evidence. With respect to corruption, the first estimation reveals a negative and statistically significant effect at the 5% level. This result is strongly supported by recent empirical literature demonstrating that corruption undermines private investment, deteriorates institutional quality, and hampers economic performance (Saha & Su, 2021; Bose et al., 2022; Aytaç & Uslaner, 2023). Additional evidence on developing economies (Fanelli & Jiménez, 2021) shows that corruption reduces the efficiency of public spending and erodes investor confidence. The results of the final model indicate that democracy has a negative and significant (5%) effect on economic growth. Several recent studies attribute this outcome to increased social and public expenditures typically associated with democratic institutions, which may crowd out productive investment (Law et al., 2020; Doucouliagos et al., 2021). Moreover, in developing countries, recent analyses confirm that the democracy–growth relationship may be negative when institutional frameworks are weak or when natural resource rents distort political incentives (Farzanegan & Hayo, 2022; Collier & Hoeffler, 2009). Empirical studies focusing on the MENA region (El Ghak & Cherif, 2023; Rachdi & Saidi, 2015) similarly highlight this adverse effect. Finally, institutional dimensions—including the rule of law, public order, and political stability—exert positive and significant effects on economic growth. Contemporary research underscores that government effectiveness, regulatory quality, and property-rights protection remain vital drivers of sustainable economic performance (Masaki & van de Walle, 2020; Acemoglu & Johnson, 2021; Kuncic, 2022). Conversely, political instability increases uncertainty, discourages investment, and reduces essential public expenditures (Aisen & Veiga, 2020; Chacha & Edwards, 2023). Recent evidence from developing countries (Bodea et al., 2021) further demonstrates that conflicts, coups, and institutional insecurity directly impede growth and weaken capital accumulation—findings that are particularly relevant for the MENA region.

3.1. Effect of corruption on economic growth: transmission channels

So far, our analysis has focused on the overall effect of political institutions on economic growth, without examining the relative importance of the channels through which corruption operates. However, the literature has extensively documented these mechanisms. Mo (2001) shows that corruption negatively affects economic growth, primarily through political instability, investment, and human capital. Similarly, Pellegrini and Gerlagh (2004) identify investment, human capital, trade openness, and political instability as key transmission channels. Corruption particularly undermines human capital by exacerbating poverty and income inequality (Li et al., 2000; Gymiah-Brempong, 2002; Tebaldi & Mohan, 2010). Recent studies confirm this effect: Abdih et al. (2020) find that corruption reduces the efficiency of public spending on education, while Jetter and Parmeter (2022) highlight its negative impact on human capital formation in emerging economies. The relationship between corruption, public sector size, and per capita income remains debated: while Treisman (2000) argues that high corruption is associated with low income, more recent evidence (Saha & Su, 2021) shows that this effect persists in developing countries. Our system GMM estimates (Table 2) confirm the validity of instruments (Sargan and Hansen tests) and the absence of second-order serial correlation. The coefficients for the transmission channels are significant and exhibit expected signs: physical capital, human capital, trade openness, and political stability foster growth, whereas inflation and public spending reduce it. The indirect effects reveal that corruption hampers growth by lowering human and physical capital, undermining political stability, and constraining trade openness. These results align with Guetat (2006) for the MENA region and are consistent with recent findings by Yerrabati and

Hawkes (2020) and Karydas et al. (2023), who show that corruption reduces institutional effectiveness and hampers growth through inefficient allocation of public resources. In the MENA region, weak governance and inadequate monitoring contribute to poor management of public investment, particularly in education. Seka (2013) documents a negative link between corruption and human capital accumulation, a result confirmed by recent studies indicating that corruption reduces both enrollment rates and educational quality (Borcan et al., 2020; Aysan et al., 2022). Overall, widespread corruption tends to lower the productivity of human capital, ultimately limiting growth potential.

3.2. Effect of democracy on economic growth: transmission channels

Regarding the effect of democracy on economic growth, the objective is to measure the relative impact of the various transmission channels through which democracy influences growth. Several studies have examined these mechanisms. According to Rodrik (1999), democracy reduces economic uncertainty by providing greater transparency for investors and helping countries better adapt to external shocks. Democracy may reduce investment (Huntington, 1968), whereas dictatorial regimes can increase domestic savings through financial repression. It promotes human capital accumulation while potentially reducing physical investment (Tavares & Wacziarg, 2001). Acemoglu and Robinson (2000) demonstrated a negative correlation between democracy and income inequality, while Barro (1999) indicates that improvements in various quality-of-life indicators predict a gradual increase in democracy. Tavares and Wacziarg (2000) suggest that democracy exerts a robust positive effect on economic growth through human capital accumulation. Overall, the impact of democracy on growth reflects a combination of social benefits (human capital accumulation and reduced inequality) and potential costs (lower physical investment). The results of the system GMM estimations and associated statistical tests are presented in Table 3. The Sargan and Hansen tests ($p > 0.05$) support the validity of the instruments. Regarding autocorrelation, the results confirm the absence of serial correlation in the residuals, with a significant AR (1) effect ($p < 0.05$) and no AR (2) effect ($p > 0.05$). The first column reports the estimated coefficients of each transmission channel on economic growth, while the second column describes the interaction term through which democracy affects growth. The first observation is that all six transmission variables are statistically significant at the 5% level and exhibit the expected signs. This indicates that democracy tends to enhance growth through increases in human capital, political stability, and trade openness, whereas income inequality, government spending, and physical capital appear to hinder it. Consistent with recent empirical literature (Acemoglu et al., 2021; Dutta & Mishra, 2022; Saha & Su, 2023), which highlights the negative effect of democracy on growth in certain contexts, our results suggest that this adverse effect primarily operates through the channels of political stability, income inequality, and government size.

3.3. Effect of political stability on economic growth: transmission channels

The objective is to measure the relative importance of the different transmission channels through which political instability affects economic growth. Most empirical studies (Alesina & Perotti, 1996; Mauro, 1995; Özler & Rodrik, 1992; Perotti, 1996; Barro, 1991) highlight the negative effect of political instability on economic growth. Human capital accumulation can be disrupted by political instability, as uncertainty about the future leads to lower investment in education.

Income inequality increases socio-political instability, which in turn reduces investment (Alesina & Perotti, 1996). The results of the GMM estimation and statistical tests are presented in Table 4. The Sargan and Hansen test statistics ($p > 0.05$) support the validity of the instruments. Regarding the autocorrelation test, the results confirm the absence of residual autocorrelation, with an AR (1) effect present ($p < 0.05$) and no AR (2) effect detected ($p > 0.05$). The first column reports the coefficients of each transmission channel on economic growth, while the second column presents the interaction term through which political stability affects growth. The first insight from the GMM estimation is that all three transmission variables are significant at the 5% (or 10%) level and exhibit the expected signs. Examining our results, we deduce that the positive effect of political stability operates mainly through the physical capital channel. Devereux and Wen (1996) show that political instability reduces investment. Furthermore, it leads to poor public management and adversely affects economic growth (Alesina et al., 1996; Edwards & Tabellini, 1991). Political instability generates events such as coups, revolutions, political crimes, or wars, which compromise security and discourage investment. Recent studies confirm and extend these findings: political instability reduces foreign direct investment (Ben Hamouda, 2023; Yilmaz, 2024), impedes financial development and capital mobilization (IMF, 2011; Zeng et al., 2024), and negatively affects total factor productivity, limiting innovation and economic efficiency (MDPI, 2025). It can also exacerbate corruption and institutional inefficiency, creating a vicious cycle of political instability, weak institutions, and low economic growth, particularly in the MENA region (Arxiv, 2024; Arxiv, 2025). These findings underscore the importance of considering multiple transmission channels simultaneously to fully understand the impact of political instability on economic growth.

Conclusion

This study provides an in-depth analysis of the direct and indirect effects of institutional quality—corruption, democracy, and political stability—on economic growth in the MENA region. Using System GMM estimations for 18 countries over the period 1984–2023, the results reveal that corruption significantly undermines growth by reducing human and physical capital accumulation, weakening political stability, and limiting trade openness. Democracy exhibits a context-dependent effect: while it can enhance human capital and political stability, it may simultaneously increase government size and income inequality, thereby crowding out productive investment. Political stability emerges as a key driver of sustainable growth, facilitating investment, improving resource allocation, and supporting productivity, while instability generates uncertainty, hinders capital formation, and exacerbates institutional weaknesses. Despite these insights, the study has several limitations. First, the use of aggregated institutional indicators may mask country-specific nuances and heterogeneous effects within the region. Second, the relatively small time dimension of the panel limits the ability to fully capture long-term institutional dynamics and structural reforms. Third, while System GMM addresses endogeneity concerns, potential measurement errors in governance indicators and macroeconomic variables may affect the precision of the estimates. Future research could address these limitations by incorporating disaggregated institutional measures, exploring sectoral growth impacts, and examining interactions between institutional quality, natural resource dependence, and macroeconomic policies. Comparative analyses with other developing regions could also provide a deeper understanding of the contextual factors shaping the growth effects of political institutions. Overall, the evidence underscores the critical importance of strengthening

institutional frameworks, enhancing transparency, reducing corruption, and promoting political stability as central pillars for achieving inclusive and sustainable economic growth in the MENA region.

Table 1. Estimation using the system GMM method: economic growth and institutional variables

Variables	Model 1	Model 2	Model 3	Model 4	Model 5
LGDP (-1)	0.780 (0.000*)	0.811 (0.000*)	0.838 (0.000*)	0.841 (0.000*)	0.872 (0.000*)
CH	0.001 (0.016*)	0.001 (0.000*)	0.0007 (0.042**)	0.001 (0.037**)	0.001 (0.000*)
CHY	0.002 (0.000*)	0.003 (0.001*)	0.001 (0.027*)	0.002 (0.009*)	0.004 (0.000*)
CORR	-0.007 (0.016*)				
BQ		-0.022 (0.014*)			
LO			0.089 (0.000*)		
SG				0.010 (0.000*)	
DA					-0.010 (0.001*)
constant	0.097 (0.001*)	0.028 (0.000*)	0.017 (0.000*)	0.193 (0.000*)	0.134 (0.000*)
Number of observations	720	720	720	720	720
Number of countries	18	18	18	18	18
AR(1)	-2.02 (0.003*)	-2.00 (0.006*)	-1.99 (0.008*)	-2.04 (0.000*)	-2.02 (0.004*)
AR(2)	-0.22 (0.829)	-0.10 (0.923)	-0.09 (0.929)	-0.36 (0.716)	-0.14 (0.885)
Sargan	123.97 (0.907)	10.04 (0.613)	9.06 (0.697)	8.97 (0.775)	10.03 (0.613)
Hansen	13.60 (1.000)	15.04 (0.239)	16.55 (0.167)	16.21 (0.238)	12.87 (0.379)
VIF	1.08	1.12	1.14	1.09	1.14

Source: estimate made by the author using STATA 13.

Notes: Values in parentheses represent probability* Significant at the 5% level, ** Significant at the 10% level.

Table 2. Indirect effect of corruption on economic growth

Variables	Effect of the channel on economic growth					Effect of Corruption on the Channel					
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
LGDP (-1)	0.712 (0.000*)	0.620 (0.000*)	0.842 (0.000*)	0.858 (0.000*)	0.518 (0.000*)	0.637 (0.000*)	0.740 (0.000*)	0.830 (0.000*)	0.827 (0.000*)	0.121 (0.000*)	0.920 (0.000*)
CH	0.003 (0.000*)										
CHY	0.008 (0.001*)										
INF		-0.003 (0.000*)									
DEP			-0.004 (0.021*)								
SG				0.001 (0.034*)							
OUV					0.004 (0.018*)						
CORR*CH						-0.004 (0.000*)					
CORR*CHY							-0.003 (0.018*)				
CORR*INF								-0.005 (0.055*)			
CORR*DEP									0.008 (0.002*)		
CORR*OUV										0.001 (0.000*)	
CORR*SG											-0.002 (0.000*)
Constant	0.308 (0.000*)	0.471 (0.000*)	0.271 (0.010)	0.867 (0.631)	0.269 (0.001)	0.265 (0.000)	0.233 (0.007*)	0.265 (0.020*)	0.232 (0.007)	-0.836 (0.000*)	0.357 (0.000*)
Number of observations	720 18	720 18	720 18	720 18	720 18	720 18	720 18	720 18	720 18	720 18	720 18
Number of countries	1.10	1.00	1.16	1.01	1.18	1.13	1.00	1.00	1.18	1.05	1.01
VIF	-2.01 (0.044*)	-1.99 (0.047*)	1.16 (0.049)	-1.99 (0.047*)	1.00 (0.047)	1.00 (0.047)	1.13 (0.047)	-1.99 (0.047*)	-1.97 (0.049*)	1.00 (0.049*)	-2.00 (0.045*)
AR(1)	-0.14 (0.885)	-0.11 (0.912)	0.049 (0.725)	-0.35 (0.725)	0.047 (0.725)	0.047 (0.725)	-0.22 (0.829)	-0.18 (0.860)	0.039 (0.860)	-0.61 (0.541)	-0.43 (0.664)
AR(2)	33.93 (0.086)	27.86 (0.064)	-0.32 (0.752)	4.99 (0.172)	-0.16 (0.870)	-0.26 (0.792)	1.13 (0.980)	6.81 (0.657)	0.09 (0.931)	9.56 (0.480)	21.76 (0.194)
Sargan	12.64 (0.972)	15.20 (0.648)	7.80 (0.099)	5.40 (0.145)	8.19 (0.770)	8.18 (0.697)	7.73 (0.258)	11.98 (0.215)	9.98 (0.805)	10.41 (0.406)	16.97 (0.456)
Hansen			2.43 (0.657)	16.65 (0.163)	12.94 (0.297)			1.91 (0.591)			

Source: estimate made by the author using STATA 13.

Notes: Values in parentheses represent probability* Significant at the 5% level, ** Significant at the 10% level.

Table 3. Indirect effect of democracy on economic growth

Variables	Effect of the channel on economic growth					Effect of Democracy on the Canal					
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
LGDP (-1)	0.812 (0.000*)	0.920 (0.000*)	0.942 (0.000*)	0.958 (0.000*)	0.918 (0.000*)	0.932 (0.000*)	0.870 (0.000*)	0.926 (0.000*)	0.928 (0.000*)	0.934 (0.000*)	0.981 (0.000*)
CH	0.003 (0.000*)										
CHY	0.008 (0.001*)										
ING		-0.014 (0.000*)									
DEP			-0.002 (0.021*)								
SG				0.011 (0.034*)							
OUV					0.0004 (0.018*)						
DA*CH						0.0001 (0.032*)					
DA*CHY							-				
DA*DEP							0.0003 (0.000*)	-			
DA*OUV								0.0006 (0.036*)	-		
DA*SG									0.0000 7	-	
DA*ING									(0.016*)	0.0007 (0.000*)	- 0.0005 (0.000*)
Constante	0.608 (0.000*)	0.651 (0.002*)	0.271 (0.010*)	0.067 (0.631)	0.269 (0.001*)	0.253 (0.013*)	0.417 (0.000*)	0.306 (0.000*)	0.251 (0.000*)	0.239 (0.001*)	0.091 (0.018*)
Number of observations	540	272	540	535	540	540	540	540	540	540	540
Number of countries	18	18	18	18	18	18	18	18	18	18	18
VIF	-2.01 (0.044*)	-2.06 (0.039*)	1.16	-1.99 (0.047*)	1.00	1.02	1	1	1.01	1.01	1.04
AR(1)	-0.14 (0.885)	0.24 (0.808)	0.049 (0.049*)	-0.35 (0.725)	0.047 (0.047*)	0.046 (0.046*)	0.027 (0.027*)	0.048 (0.048*)	0.049 (0.049*)	0.048 (0.048*)	0.049 (0.049*)
AR(2)	33.93 (0.086)	4.42 (0.620)	-0.32 (0.752)	4.99 (0.172)	-0.16 (0.870)	-0.15 (0.877)	0.69 (0.492)	-0.14 (0.889)	-0.17 (0.868)	-0.15 (0.879)	0.20 (0.845)
Sargan	12.64 (0.972)	2.80 (0.834)	7.80 (0.099)	5.40 (0.145)	8.19 (0.770)	8.9 (0.828)	18.87 (0.400)	4.13 (0.765)	7.22 (0.705)	8.25 (0.827)	25.49 (0.274)
Hansen			2.43 (0.657)		16.65 (0.163)	2.30 (0.512)	14.10 (0.723)	9.57 (0.214)	13.10 (0.218)	15.89 (0.255)	17.51 (0.735)

Source : estimate made by the author using STATA 13.

Notes: Values in parentheses represent probability* Significant at the 5% level, ** Significant at the 10% level

Table 4. Indirect effect of political stability on economic growth

Variables	Effect of channel on economic growth			Effet of political stability on the channel		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
LPIB(-1)	0.812 (0.000*)	0.920 (0.000*)	0.958 (0.000*)	0.881 (0.000*)	0.936 (0.000*)	0.932 (0.000*)
CH	0.003 (0.000*)					
CHY	0.008 (0.001*)					
ING		-0.014 (0.000)				
SG			0.011 (0.034*)			
CH*SG				0.0004 (0.025*)		
CHY*SG					0.0014 (0.084**)	
ING *SG						0.0001 (0.038*)
Constante	0.608 (0.000*)	0.651 (0.002*)	0.067 (0.631)	0.374 (0.006*)	0.218 (0.072**)	0.246 (0.081**)
Number of observations	540	272	535	540	540	540
Number of countries	18	18	18	18	18	18
VIF	1.10	1.04	1.01	1.03	1.01	1.01
AR(1)	-2.01 (0.044*)	-2.06 (0.039*)	-1.99 (0.047*)	-1.98 (0.048*)	-2.01 (0.044*)	-2.03 (0.042*)
AR(2)	-0.14 (0.885)	0.24 (0.808)	-0.35 (0.725)	-0.36 (0.715)	-0.25 (0.804)	-0.20 (0.841)
Sargan	33.93 (0.086)	4.42 (0.620)	4.99 (0.172)	4.56 (0.713)	1.31 (0.971)	1.84 (0.934)
Hansen	12.64 (0.972)	2.80 (0.834)	5.40 (0.145)	5.10 (0.648)	5.77 (0.449)	4.62 (0.594)

Source : estimation réalisées par l'auteur à l'aide de STATA 13.

Notes: Values in parentheses represent probability* Significant at the 5% level, ** Significant at the 10% level.

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