Economic gender gap in the Global South: how public institutions matter

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Abstract:

One of the most challenging gender gaps in the Global South remains in the economic sphere. This paper examines how public institutions affect the gender gap in economic participation and opportunities in 74 developing and emerging countries during the period 2006-2016. We find that the public institutional environment is closely related to the economic gender gap. Specifically, the protection of property rights and guaranteeing security seem to be two key factors associated to lower economic gender inequality. Nevertheless, public institutions do not matter equally throughout economically backward countries. Whereas in emerging countries, particularly in Latin America and the Caribbean, a broad variety of institutional aspects, including undue influence on judicial and government decisions, are closely related to the economic gender gap, in low-income developing countries, such as Sub-Saharan countries, the problems of ethics and corruption stand out as a particularly remarkable element against economic gender equality. Some significant policy implications are derived from our findings regarding the potential of public institution reforms to reduce the economic gender gap.

Keywords

Economic gender gap, economic participation and opportunities, public institutions, developing and emerging countries

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1. Introduction

Economic studies have paid increasing attention to the role of institutions since the last decades of the twentieth century. Specifically, ample literature has examined the interdependence between effective institutions and different aspects of economic performance, such as economic growth, poverty reduction or economic inequality (see e.g. Dollar & Kraay, 2003; Chong & Gradstein, 2007; Asongu & Kodila-Tedika, 2018). A significant number of studies have recently attempted to examine how institutions affect other human well-being facets of Sen's capability approach and further developments (see e.g. Kaushik &

Lòpez-Calva, 2011; Dwumfour, 2020). In this line, the need for adequate institutions that contribute to gender equality arises as a core concern in the framework of human development (Comim & Nussbaum, 2014).

Nowadays, gender inequality continues to be especially prominent in Global South countries in terms of education, health, political empowerment and economic participation. In this sense, it is noteworthy that, in line with the Global Gender Gap Report (Hausmann, Tyson, & Zahidi, 2017), one of the most challenging gender gaps remains in the economic sphere. According to the estimate provided by the Global Gender Gap Report 2020 (World Economic Forum, 2019), the global average of a woman's income is about $11,000 (in Purchasing Power Parity, PPP) while the average income of a man is $21,000 (in PPP). Moreover, in 2017 the economic gender gap reverted to where it stood in 2008 after a peak in 2013. At the current pace, the gap will not be closed for another 217 years (Hausmann et al., 2017).[1] In the event there is no progress in reducing the economic gender gap, some of the Sustainable Development Goals, especially Goal 1 (End poverty in all its forms everywhere), Goal 5 (Achieve gender equality and empower all women and girls), and Goal 10 (Reduce inequality within and among countries) will be very difficult to attain.

Reducing economic gender gap is essential to boost the economy and promote social development. Gender equality promotes economic growth through the diversification of the economy, helps reduce income inequality and induces an inclusive society that is conducive for higher economic growth (Kochhar, Jain-chandra, & Newiak, 2017). Specifically, the full participation of women in the labor force would add percentage points to the majority of national growth rates. International Labor Organization (ILO) estimations suggest that closing the gender gap in economic participation by 25 per cent by 2025 could increase global GDP by US$ 5.3 trillion (ILO, 2017a). Furthermore, evidence shows that increasing the share of household income controlled by women, either through their own earnings or cash transfers, changes spending in ways that benefit their homes (see. e.g. Rubalcava, Teruel, & Thomas, 2009). Empowering women´s economic autonomy in traditional families (ascendants and descendants) implies that women can break poverty in their household, providing basic needs of food, shelter and clothing. This way, the elimination of poverty will be more effective when women have autonomy and decision-making power in economic terms.

In this context, the 2030 Agenda highlights the importance of undertaking reforms to give women equal rights to economic resources in terms of financial services and inheritance, as well as fostering ownership rights over assets and other forms of property. With this aim in mind, it is intended to ensure the full and effective participation of women at all decision-making levels in political, economic and public life.[2] In order to reach the Sustainable Development Goals (SDG) by 2030, the United Nations Development Program (UNDP) brings to light the importance of institutional aspects as a key factor in reducing the gender gap, considering "transforming institutions to advance gender equality" as a main area of work in its Gender Equality Strategy (UNDP, 2014). The UNDP Strategy encourages countries to boost strengthened institutions to progressively deliver universal access to basic services. In terms of economic gender gap in particular, the UNDP Strategy emphasizes the relevance of the creation of institutional environments to develop gender-responsive economic plans, policies and social protection systems.[3]

This paper examines how public institutional environment affects the gender gap in economic participation and opportunities in economically backward countries by using a wide range of institutional

[1] Compared to other dimensions, the political one currently presents the widest gender gap, although it also shows the greatest progress and is expected to be closed within 99 years. The health gender gap is also larger than it was in 2006 and the time to close it remains undefined. Regarding the education–specific gender gap, Hausmann et al. (2017) point out that it could be reduced to parity within the next 13 years.

[2] In accordance with targets 5 and 7 of Sustainable Development Goal 5 (Gender equality), approved in the Resolution adopted by the General Assembly on 25 September 2015.

[3] This includes supporting measures to reduce women's unpaid work, initiatives to ensure women's equal access to decent employment opportunities, resources and finance, and helping to develop and implement gender-sensitive budget processes (UNDP, 2018).

variables of the Global Competitiveness Index (GCI). A panel of 74 developing and emerging countries is analyzed over the period 2006–2016 through a dynamic panel model. The results provide insights for policy makers and practitioners on potential institutional reforms in developing and emerging countries, highlighting considerable differences in the role of public institutions in economic gender inequality across the Global South.

The paper is organized as follows. The next section provides a background regarding the links between economic gender gap and institutions. In Section 3, indicators and data are described. Section 4 presents and discusses the results and the last section offers some concluding remarks.

2. Background

2.1. Gender and Development

Approaches to gender inequality have evolved during the twentieth century, from considering women as passive stakeholders to acknowledging that they perform a major role in building gender equality (see e.g. Parpart, Connelly, & Barriteau, 2000; Momsen, 2004). In the 70s, the main approach was Women in Development (WID), the term used for the main approach that development planners and scholars applied during this decade. WID generally refers to the integration of women into global processes of economic, political, and social growth and change (Rathgeber, 1990).

By the end of the 70s, this approach was criticized because of the oversimplification of women's roles in the productive system. Subsequently, the Women and Development (WAD) approach became an influential trend, mainly embraced by Benería and Sen (1981). Its theories were nourished by Marxist-Feminist principles and focused on the dependency of the so-called Third World countries on the wealthiest nations (Chua, Bhavnani, & Foran, 2000), rather than on factors and causes that maintained the structures of gender inequality.

At the end of the 1980s and 1990s, the Gender and Development (GAD) approach was developed by feminist theorists (Young, 1997) and accepted by policy planners and the academic world. This perspective considered not only the importance of women in development, but also the unequal gender relations and mechanisms that produce gender inequality between women and men.

Under this concept, the Millennium Development Goals integrated a gender approach, promoting "Gender equality and empower women" (Goal 3) and "Improve maternal health" (Goal 5). Despite their relative success, they were criticized by civil society groups that demanded greater attention to other aspects, such as women's reproductive health problems and labor inequalities (Fukuda-Parr, 2016).

In recent years, the debate on the post-2015 Agenda has highlighted the need to adopt new approaches with which to contribute to a broader movement for global justice and the effective elimination of the gender gap by setting a specific goal focused on gender equality. In this line, this paper addresses the economic gender gap in developing and emerging countries from a GAD perspective expanded through the prism of the 2030 Agenda for Sustainable Development.

2.2. Economic gender gap and development levels

Focusing on the economic dimension and following Hausmann, Tyson, & Zahidi (2006), under economic gender gap we refer to the differences between women and men in (i) labor force participation rates (participation gap), (ii) payment received in wages (remuneration gap) and the (iii) unequal representation of both sexes in management and responsibility positions in both public and private spheres (advancement gap).

Regarding the divide in the participation in the labor force (participation gap) between women and men, there has been a slowdown in narrowing the gap in the past decade. Despite the fact that 70% of women want to have a paid job in the labor market, only 50% of them achieve it (76% if we refer men) (Gallup & ILO, 2017). In 2017, the labor force participation gap was narrower in developing countries (12.3%) than

it was in emerging (30.6%) or developed nations (16.9%) (ILO, 2017b), a phenomenon that in the specific literature is labelled as 'feminization U' (see e.g. Attanasio, Low, & Sanchez-Marcos, 2005; Gaddis & Klasen, 2014). The U-shaped hypothesis holds that as regions develop at an early stage of industrialization, Female Labor Force Participation (FLFP) decreases because of women´s displacement from agriculture and their exclusion from occupations in manufacturing and administration. Subsequently, at a later stage of development, the female workforce raises boosted by structural shifts, such as increases in educational level and declines in fertility rates,.

Nevertheless, women continue suffering from a significant 'remuneration gap'. Globally, the gender wage gap is estimated to be 23 per cent (ILO, 2016) and if current trends prevail, it will take more than 70 years before gender wage gaps are completely closed. Cultural and social reasons are considered as central to understand the prevalence of the pay gap. On the one hand, women tend to be overrepresented in lower productivity sectors (Teow, Utkarshini, & Goel, 2018) and the prevailing societal norms confine them to lower paid positions (also called horizontal segregation or "glass walls") (ILO, 2016). On the other hand, women work fewer remunerated hours, either because they opt to work part time or because part-time work is the only option available to them (Budig & England, 2001).

Finally, it is worth noting that the unequal representation of both sexes in management and responsibility positions (advancement gap) contributes to increasing the wage gap. In both public and private spheres, women still have to overcome a set of barriers in order to reach positions of responsibility as legislators, senior officials, and managers: they make up less than 25 percent of management positions globally and 22 percent in ministerial and parliamentary roles (McKinsey&Company, 2017). In addition, the ILO Company Survey of companies across the developing regions (ILO & ACT/EMP, 2015), conducted in 2013, indicated that women entailed around 21 percent of all CEOs.

2.3. How institutional environment affects economic gender gap

According to the definition provided by North (1990), we construe institutions as "the rules of the game of a society", or more formally, "the humanly devised constraints that structure human interaction" (North, 1990, p. 3); in other words, he defines the incentive structure of a society and the underlying determinants of economic performance (North, 1994) . Those incentives, which might be created by formal, legally mandatory constraints—e.g. regulations, laws, or constitutions—together with their associated compliance mechanisms as well as by informal constraints—e.g. social behaviors, codes of conduct or conventions—, tend to be replicated over time, contributing to shaping the reality of a specific society (Lewis & Steinmo, 2012).

A number of empirical studies have evidenced the relevance of institutions for development in the developing world (see e.g. Ahmad & Hall, 2017; Uddin, Ali, & Masih, 2017) by creating confidence in economic activities through the establishment of the right incentives and the reduction of uncertainties. Thus, the protection of property rights and guaranteeing a secure environment have been emphasized to encourage individuals to invest in an economy and promote economic activity. This depends, formally, on the existence of institutions capable of enforcing *property rights* and ensuring a basic level of *security*, even though, informally, it also depends on adequate *levels of trust* in society (Schwab & Sala-i-Martín, 2015).

Regarding *property rights*, some of the most relevant institutional economists agree in pointing out that the enforceability of property rights is an essential role of the state (see e.g. North & Thomas, 1973; North, 1990; Acemoglu, Johnson, & Robinson, 2001; Jayadev & Bowles, 2006). Following North (1990, p. 33), property rights are the rights individuals appropriate over their own labor and the goods and services they possess. They ensure control over an asset, generating incentives to invest in physical or human capital and creating economic opportunities to innovate or trade (Acemoglu, Johnson, & Robinson, 2005). Moreover, they guarantee property to be acquired and transferred with confidence in formal markets, contributing to economic development in the long run. From a gender perspective, property rights contribute to empower women economically by creating opportunities for securing their place in the community, earning income and ensuring their livelihoods (see. e.g. Anderson & Bidner, 2015; Oduro &

Van Staveren, 2015). Weak property rights are reflected in inequality in respect to the asset gender gap, which is especially significant in the economically backward world where women's rights —not only to land but to the basic necessities of life such as shelter, water and food— are unbalanced (World Bank, 2015).

Guaranteeing a basic level of *security* of citizens is another essential role of the state that may be regarded as a starting point in the creation of economic opportunities, as terrorism, organized crime, violence or racketeering involve significant obstructions to private investment and economic transactions (Schwab & Sala-i-Martín, 2015). From an institutional point of view, the search costs for obtaining information about security systems, crime rates or police protection might discourage economic performance (North, 1990). States should preserve the 'monopoly of legitimate violence' and enforce the accomplishment of rights and security through their formal agents (police, foremen, judges, juries, etc.). Nevertheless, this requires levels of state capacity and financial endowment that are not always possible in weak institutional environments (North, 1989). This way, North (1990) brings to light how throughout the course of human history, some institutional frameworks showed certain degree of connivance with organized crime or violent environments, while others rewarded productive economic activity. In general terms, he stresses that the latter have outweighed the former, but they have not done so in a number of developing economies. As Acemoglu & Robinson (2012) emphasize, in states with high violence rates the consequences for the population and the economy might be perverse due to the creation of a symbiotic relationship between politicians and organized forces, so that national politicians exploit the lawlessness, while paramilitary groups are left to their own devices by formal institutions. In this scenario, when states fail to guarantee security, women are specially affected. They are particularly vulnerable to sexual exploitation by the police, military or other security-sector actors in conflict and post-conflict situations, where the institutional environment is often very weak (Hossain, Musembi, & Hughes, 2010). Furthermore, the impact on women may be further exacerbated by terrorist and violent extremist groups operating in conflict-affected areas (Fink & Barakat, 2013). The presence of these groups and the culture of permission and promotion of international terrorism entail a considerable breeding ground with great influence on the mentality and social behavior towards women (Najimi, 2018), which do not contribute to reducing their lack of economic opportunities.

Beyond the two fundamental roles of the state mentioned above (protection of property rights and guaranteeing security), it is widely accepted that the quality of public institutions is essential in terms of economic performance. In this vein, previous research shows the importance of the absence of corruption and undue influence, two of the main undermining issues of the level of trust and impartiality in a society, as key elements determining institutional quality. We refer to *corruption* as the misuse of public power for private gain (Schwab & Sala-i-Martín, 2015). It usually acts as a hindrance to economic institutions, whose purpose is to help to allocate resources to their most efficient uses and to determine who obtains profits, revenues and residual rights of control (Acemoglu et al., 2005). Corruption erodes economic performance through five main factors (Schwab & Sala-i-Martín, 2015): (i) diminishing incentives to invest, since possible investors consider corruption as an additional and discretionary tax they may support; (ii) lowering human capital, since talent is channeled to rent-seeking activities instead to productive work; (iii) decreasing tax collection; (iv) misappropriating public funds to activities in which government officials might benefit instead of activities that promote public welfare; and (v) lowering the quality of public services and infrastructure through the misallocation of public procurement contracts. Even when these issues are extensively addressed in institutional literature, some studies point out that it might be convenient in certain environments to permit certain levels of corruption, as it could be very costly and inefficient to implement a fully corruption-free system (Acemoglu & Verdier, 1998). This could account, to some extent, for how some economically backward countries might be more permissive towards corruption, aside from other aspects related to the power of the elites and their influence in terms of political economy. From a gender perspective, the socio-cultural, economic and political discrimination that women usually face in some countries tends to be compounded when a society is corruption ridden (see e.g. Dollar, Fisman, & Gatti, 2001; Schimmel & Pech, 2004). In recent years, discussions are bringing to light how corruption particularly affects women through some specific factors. First, corruption may lower women's opportunities to enter decision-making circles in governance,

political regimes, and business: when political parties and institutional representation can be bought and sold, officials are elected through vote-buying and promotion is related to personal connections rather than merit (Transparency International, 2007a). Second, corruption reduces public revenue and affects the welfare of vulnerable groups such as women and children, who often rely most on accessing the vital services provided by the state (see e.g. Transparency International, 2010; Hao, Chang, & Sun, 2017). Finally, corruption reduces women's access to markets and credit, making it more difficult to obtain licenses and permits, for instance, to start a business, drive a car or build a house (Ellis, Manuel, & Blackden, 2006; Hossain et al., 2010).

Concerning *undue influence* on judicial and government decisions, the literature highlights the importance of impartiality to reinforce positive norms and reduce undue influence as a key point in economic performance (Hall & Jones, 1999; Feld & Frey, 2002; Rothstein & Teorell, 2012; Steinmo, 2019). Impartiality implies reinforcing rules equally amongst all citizens and fighting against diversion, which, in turn, might create a positive 'snowball effect' between societies as people witnessing how others follow the rules are more likely to follow such rules (Steinmo, 2019). By contrast, under biased law enforcement systems, minorities and less-advantaged groups (among others, women and girls) may end up being the hardest hit. They tend to not receive sufficient protection from an independent judicial system, and their position is inferior to that of other more privileged groups (Transparency International, 2007b). Thus, high income inequality allows wealthy spheres to wield stronger political and judicial influence, subverting institutions (Chong & Gradstein, 2007). In addition, women's relatively weaker access to personal resources has meant that they are more frequently harmed (Nyamu-Musembi, 2007) in contexts where undue influence and bribery has become a prerequisite to accessing goods and services (Batabyal & Yoo, 2007; UNDP, 2012).

All in all, numerous authors have highlighted the importance of some key aspects of the public institutional environment in terms of economic performance, even though their links to gender inequalities have been frequently overlooked. This paper focuses precisely on examining the extent to which these institutional elements might be connected to economic gender inequality.

2.4. Previous empirical evidence

Empirical studies on economic gender gap in developing and emerging countries are essentially focused on how some economic aspects, such as long-term economic development and macroeconomic changes, trade liberalization, globalization and government size, affect labor force inequalities, mainly in terms of the participation gap. For instance, Çagatay & Özler (1995) use cross-country pooled data for 1985 and 1990 to analyze the relationship between long-term economic development and macroeconomic changes on the FLFP in 96 countries. They find that structural adjustment practices boosted the female workforce, aggravated distribution of income and increased openness. Meyer (2006) focuses on the effects of trade openness on female participation in domestic job markets. She conducts a multi-country study at 5-year intervals between 1970 and 1995 by using OLS for 121 countries. She concludes that trade openness has a greater effect on FLFP rates in middle-income nations than in low-income and advanced industrialized countries. Gray, Kittilson, & Sandholtz (2006) examine the impact of several measures of globalization on women's levels of participation in the economy and parliamentary office (among other aspects). They use data for 163 countries from 1975 to 2000 by employing cross-sectional time series regression techniques and conclude that globalization (in terms of foreign investment and membership in international organizations) are associated with higher FLFP and more women serving in parliament. In the same line, Bussmann (2009) analyzes the relationship between economic integration and some female-specific outcome variables for 134 countries for the years 1970-2000, by means of Generalized Methods of Moments (GMM) and fixed effects . She determines that trade liberalization boosts FLFP in developing nations. Finally, Wacker, Cooray, & Gaddis (2017) study the connection between globalization and female labor force participation for 80 economically poor nations, considering five-year observations during 1980–2005 and the Fixed Effects estimator. They highlight that Foreign Direct Investment (FDI) and trade have a generally negative impact on FLFP, with a stronger impact in young population, displaying a greater return of education in open economies.

Other studies, however, address some aspects related to the remuneration and advancement gaps. Sepehrivand (2017), for example, considers the effects of public sector size and trade openness on gender wage gap in 35 developing and emerging economies for the period 2001–2013, revealing that growth in government size negatively affects both male and female earnings and made a greater gender gap in wages. Almasifard (2018) examines the relationship between international trade and the gender wage gap for a sample of 13 emerging countries over the period 2001 to 2015. She highlights a negative effect of international trade on the gender wage gap as a result of a stronger effect of international trade on the female labor force.

In this paper, on the basis of the existing theoretical links between public institutional environment and gender gap in economic participation and opportunities, we provide new empirical evidence on the extent to which public institutions matter for the economic gender gap in the Global South, revealing significant differences across country groups.

3. Data and methodology

3.1. Data

This paper uses an unbalanced panel for a sample of 74 developing and emerging countries, for which there is statistical information on economic gender gap, public institutions and a number of control variables between 2006 and 2016 (see Table 1 on available data by country and years).

We consider developing and emerging economies those that the UNDP listed in its 2016 Human Development Report (UNDP, 2016). In particular, we consider, on the one hand, 52 developing countries, which include low-income (<US$ 1,005) and lower-middle income (US$ 1,006 - US$ 3,955) countries, and, on the other, 22 emerging countries, with GNI per capita over than US$ 3,955 at July 1, 2017.[4] The data on economic gender gap are from the Global Gender Gap Index (GGGI) (Hausmann et al., 2006). This index, published for the first time in 2006, seeks to measure the relative gaps between women and men across four key areas: health (through the subindex 'Health and Survival'), education (subindex 'Educational Attainment'), economy (subindex 'Economic Participation and Opportunity') and politics (subindex 'Political Empowerment'). We use the variable Economic Participation and Opportunity (EPO), which covers participation, remuneration and advancement gaps.

EPO is composed on a scale from 0 (imparity) to 1 (parity) and its methodology has remained unchanged since its original conception. Indicators related to country-specific policies, rights, culture and customs-factors are not considered by the World Economic Forum (WEF) in the construction of this variable, inasmuch as they are considered "input" or "means", thus providing a snapshot of the current situation whilst leaving the path open to analyze the causes.

In respect to institutional variables, we consider the indicators of public institutions reported annually by the WEF since 2004 in the Global Competitiveness Index (GCI). The GCI data set provides a framework and a corresponding set of indicators in twelve policy domains (pillars), where institutions constitute the first pillar. These data have been widely used by policymakers and academics for economically developed, emerging and developing countries (Despotovic, Cvetanovic, Nedic, & Despotovic, 2016; Pérez-Moreno, Rodríguez, & Luque, 2016; Ferreira, Fayolle, Fernandes, & Raposo, 2017). We focus on public institutions and use four institutional variables taken from an Executive Opinion Survey conducted annually by the WEF, capturing the opinions of business leaders around the world on a broad range of topics for which statistics are unreliable, outdated, or nonexistent for many countries. These institutional variables are

[4] Note that there is no consensus about a unique list of emerging economies. In our case, we use the income level within the UNDP list to classify countries in order to consider an objective classification criterion for our sample of countries.

Property Rights (PR), Guaranteeing Security (GS), Ethics and Corruption (EC) and Undue Influence (UI). Their components are specified in Table A1 of the Appendix. The institutional variables range from 1 (worst level) to 7 (best level). They exist in a chain-linked version, suitable for analysis over time, which we use in our study as explanatory variables.

As control variable, we use the GDP per capita (GDPpc) in PPP[5], a widely used proxy for the level of economic development. We also carry out an additional robustness check, controlling with other socioeconomic variables related to women´s education and health from the World Development Indicators of the World Bank and the Human Development Data of the UNDP. In particular, in accordance with the literature and in relation to women's education, we consider female mean years of schooling (Myosf) and the ratio of mean years of schooling for females and males (Myosr); for women´s health, we consider female life expectancy at birth (Leabf); and for reproductive health, we consider the fertility rate (Fr). We also consider the level of general education and health of each country by using the UNDP Education Index (Eduindex) and the UNDP Life Expectancy Index (Leindex). See Table A2 of the Appendix for descriptive statistics of all variables used in the study and Table A3 for their definitions and sources.

[5] The GDP per capita variable is used in thousands.

Table 1. Available data by country

Developing countries						Emerging countries	
Low income countries			Lower-middle income countries				
	Country	Years		Country	Years	Country	Years
1	Burundi	2011-2016	19	Armenia	2007-2016	52 Albania	2006-2016
2	Benin	2006-2013, 2015-2016	20	Bangladesh	2006-2016	53 Argentina	2006-2016
3	Burkina Faso	2006-2014	21	Bolivia	2006-2016	54 Azerbaijan	2007-2016
4	Ethiopia	2006-2016	22	Bhutan	2013-2016	55 Barbados	2008-2016
5	Guinea	2014-2015	23	Côte d'Ivoire	2010-2016	56 Belize	2011
6	Gambia, The	2006-2012, 2015-2016	24	Cameroon	2006-2013, 2015-2016	57 Brazil	2006-2016
7	Liberia	2015-2016	25	Egypt, Arab Rep.	2006-2016	58 China	2006-2016
8	Madagascar	2006-2016	26	Georgia	2006-2016	59 Colombia	2006-2016
9	Mali	2006-2016	27	Ghana	2008-2016	60 Dominican Republic	2006-2016
10	Mozambique	2007-2016	28	Honduras	2006-2016	61 Ecuador	2006-2013, 2015-2016
11	Malawi	2008-2016	29	Indonesia	2006-2016	62 Guyana	2009-2015
12	Nepal	2006-2016	30	India	2006-2016	63 Jamaica	2006-2016
13	Rwanda	2014-2016	31	Jordan	2006-2016	64 Kazakhstan	2006-2016
14	Senegal	2009-2016	32	Kenya	2006-2016	65 Mexico	2006-2016
15	Chad	2006-2016	33	Kyrgyz Republic	2006-2016	66 Macedonia, FYR	2006-2016
16	Tanzania	2006-2016	34	Cambodia	2006-2016	67 Montenegro	2014-2016
17	Uganda	2006-2016	35	Lao PDR	2013-2016	68 Namibia	2006-2016
18	Zimbabwe	2006-2011, 2014-2016	36	Lesotho	2006-2016	69 Peru	2006-2016
			37	Morocco	2006-2016	70 Serbia	2012-2016
			38	Moldova	2010-2016	71 Suriname	2011-2014
			39	Mongolia	2006-2016	72 Thailand	2006-2016
			40	Mauritania	2006-2016	73 Trinidad and Tobago	2006-2016
			41	Nigeria	2006-2016	74 South Africa	2006-2016
			42	Nicaragua	2006-2016		
			43	Pakistan	2006-2016		
			44	Philippines	2006-2016		
			45	Swaziland	2014-2016		
			46	Tajikistan	2007-2012, 2014-2016		
			47	Tunisia	2006-2011, 2014-2016		
			48	Ukraine	2006-2016		
			49	Vietnam	2007-2016		
			50	Yemen, Rep.	2011-2014, 2016		
			51	Zambia	2006-2015		

3.2. Methodology

We have data on 74 countries for different years. In our estimation strategy we consider a data panel analysis that provides reliable estimates on the association between the public institution variables and the economic gender gap. Panel data models allow establishing controls to determine unmeasured aspects that may influence results. First of all, we examine the assumption of no county effects (p-value 0.000), which has been rejected in all specifications, suggesting that estimations calculated with pooled Ordinary Least Squares might be biased (Breusch & Pagan, 1980). This way, the utilization of data panels might allow us to control for the individual effects not captured by the variables in the models.

The choice of the most convenient estimation technique is determined by the high persistence of economic gender gap. We estimate a dynamic panel data that has significant advantages over other alternatives such as time-series or conventional static estimations. First, the dynamic panel data model permits to handle the whole data panel, assuring that omitted fixed effects are accounted for in order to estimate the significant parameters (Hsiao, 2003). Second, it emphasizes the short-term changes, specifying possible conditional convergence between countries. Third, it accounts for the high persistence of economic gender gap.

Hence, we formulate the following panel data model to analyze the economic gender gap, EPO_{ct}, for country c at time t:

$$EPO_{ct} = \zeta_c + \beta_1 EPO_{ct-1} + \beta_2 PI_{ct} + \beta_3 x_{ct} + \omega_{ct} \quad (1)$$

where ζ_c represents the fixed term for each country that captures permanent individual-specific effects over time not automatically considered in the model, EPO_{ct-1} controls for short term dynamics and conditional convergence as it is the lagged level of the variable EPO, PI_{ct} is the corresponding variable on public institutions (Property Rights, PR; Guaranteeing Security, GS; Ethics and Corruption, EC; and Undue Influence, UI), x_{ct} are control variables, and ω_{ct} is a normally distributed error term.

We discard the utilization of just first differences in the model because it might conduce to significant finite sample limitations in the case of variables that are quite persistent in the model, just as in the case of EPO. Furthermore, the elimination of unobserved time-persistent effects could drive to a spuriously better fit for the data as well as to a variations of the assumptions drawn from the outcomes (Bond, Hoeffler, & Temple, 2001; Malinen & Gallego Ramírez, 2013). Specifically, we apply the one-step system GMM model (Arellano & Bover, 1995; Blundell & Bond, 1998), which is reliable for finite sample inference and make use of panel-robust standard errors in order to control a possible heteroskedasticity and serial correlation in errors originated by omitted variables consistently correlated with EPO over time.

We validate the underlying hypothesis of system GMM by testing the absence of first- (m1 test) and second-order (m2 test) serial correlation in the disturbances (Arellano & Bond, 1991). Non-presence of autocorrelation needs that the m1 test reject the null hypothesis, while this assumption is not necessary in the case of m2. Moreover, the Hansen test is the most frequently applied test to examine possible correlations between the set of applied instruments and the regression residuals, assuming the absence of correlation as the null hypothesis.

Nevertheless, identification of the parameters would be weak or even not possible in the event of the series are random walks or near unit root processes. Notwithstanding that EPO is bounded by the unit interval, we search for the presence of unit roots. We run the augmented Dickey-Fuller tests (ADF) (Said & Dickey, 1984) and the Im-Pesaran-Shin (IPS) panel unit-root test (Im, Pesaran, & Shin, 2003), which assumes cross-section independence. The outcomes for all the variables applied in the model are presented in Table A4 and A5 of the Appendix so that it can be verified the rejection of the unit-root hypothesis for all variables.

Our dynamic approach includes the lagged values of EPO as explanatory variables. Unlike other estimates that focus on controlling for country parameters that remain unalterable over time, our model controls

for omitted variables that might vary over the time-series. Similarly, it considers the potential endogenous characteristics of public institutional environment, since causality might also be possible from EPO to public institutions. We assume control variables as predetermined, allowing for no contemporaneous correlation with disturbances and for feedback from lagged EPO values to the current value for the respective control variables. This way, our dynamic panel data models treat the lagged information on EPO and the different public institutional variables as endogenous, while the control variables are considered predetermined rather than strictly exogenous.

Our baseline model includes, as a control variable, the log of GDP per capita in PPP. To test the robustness of the outcomes, we develop a set of model estimations including education and health control variables (see descriptions above).

4. Results

The baseline results of the one-step system GMM estimator are presented in Table 2. The outcomes exhibit that the models are properly adjusted, since the residuals in the first difference are allowed to be serially correlated (m1) but this assumption does not apply in the case of the second difference. In this case, the test shows statistically insignificant results both for the case of the second-order autocorrelation in the second differences (m2) and the statistics of over identifying restrictions. Moreover, the first lag of EPO and the logarithm of GDP per capita are significant in most specifications.

The results highlight that some aspects of public institutions are significantly associated to the economic gender gap. In particular, we observe that a better structure of property rights (PR) and guaranteeing security (GS) seem to be related to lower economic gender gaps. Thus, our findings seem to be in line with some of the relevant institutional contributions analyzed in the theoretical framework (North & Thomas, 1973; North, 1990; Acemoglu et al., 2001; Jayadev & Bowles, 2006; Acemoglu & Robinson, 2012), in the sense that the protection of property rights, a key function of states, matters for economic performance. More specifically, our work reveals that it is also relevant to reduce economic inequality in terms of gender. Similarly, guaranteeing security seems to benefit women, in particular in order to reduce the economic gender gap as we argued in the background section, because reducing the presence of crime, violence or organized crime makes women feel less vulnerable (Hossain et al., 2010; Fink & Barakat, 2013), influencing positively the mentality and social behavior towards women (Najimi, 2018).

Nevertheless, according to our findings, public trust in politicians or irregular payments and bribes (Ethics and Corruption, EC), and favoritism in decisions of government officials and judicial independence (Undue Influence, UI) appear not to account significantly for the economic gender gap. Even when both issues seem to throw a spanner in the works of economic growth, they do not seem to contribute to reduce the economic gender gap in general terms.

Table 2. Public institutions and economic participation and opportunity. Baseline models.

	Model 1	Model 2	Model 3	Model 4
Property Rights (PR)	0.019***			
	[0.0053]			
Guaranteeing Security (GS)		0.014***		
		[0.0040]		
Ethics and Corruption (EC)			0.007	
			[0.0057]	
Undue Influence (UI)				0.010
				[0.0067]
GDPpc	0.002*	0.001	0.002*	0.002*
	[0.0007]	[0.0006]	[0.0008]	[0.0009]
Lagged EPO (t-1)	0.870***	0.894***	0.948***	0.928***
	[0.0338]	[0.0289]	[0.0314]	[0.0382]
Number of countries	74	74	74	74
Observations	685	685	685	685
Hansen Test p-value	0.1415	0.1081	0.0982	0.1083
m1 p-value	0.0001	0.0001	0.0000	0.0001
m2 p-value	0.3214	0.4118	0.3813	0.4024

*** Significant at 1% level; ** Significant at 5% level; * Significant at 10% level.
m1: Arellano and Bond Test AR (1). m2: Arellano and Bond Test AR (2)

In order to test the robustness of our baseline model, we conduct a sensitivity analysis by introducing several socioeconomic variables commonly used in the literature (see Table 3). We show that the baseline results remain significant in most model specifications. That is, Property Rights (PR) and Guaranteeing Security (GS) are significant while Ethics and Corruption (EC) and Undue Influence (UI) continue to be irrelevant on the basis of our results, corroborating the foregoing findings.

Given the considerable heterogeneity existing across countries in terms of economic and social development, we also estimate separately the baseline model by geographical areas and income levels.

As shown in Table 4, the results differ from the baseline model when we consider specific regions on their own. In the case of Latin America and the Caribbean (LAC), it is worth emphasizing the high significance of the variety of institutional variables examined, highlighting how public institutions particularly matter for economic gender gap in these countries. This might be in line with Echebarría and Cortázar (2006), whose insights show that in Latin American countries institutions still permit excessive clientelist bureaucracies and some elites frequently constitute considerable power shaping public spheres, affecting undue influence and corruption gender equality. Our work reveals how this gender inequality is especially significant in the economic sphere.

Concerning Sub-Saharan Africa (SSA) countries, we observe that the problems related to Ethics and Corruption (EC) seem to be especially detrimental for economic gender equality in these countries. In this line, our outcomes endorse Stockemer's (2011) conclusions, which point out that high levels of corruption appear to be a major barrier against women's efforts to gain positions of responsibility and management in SSA countries, as they tend to reinforce human rights violations and strengthen traditional power networks. Moreover, our findings seem to be connected with the ideas of prominent institutional economists such as North (1990), who underline the noteworthy role of corruption in least developed countries, as well as in line with Anderson and Bidner (2015) and Oduro and Van Staveren (2015), which acknowledge that, especially in Africa and other developing countries, property rights might contribute to reducing the economic gender gap by securing women´s place in the community and ensuring their livelihoods.

Lastly, it should be stressed that the results suggest the absence of a statistically significant relationship between public institutions and the economic gender gap in Middle East and North Africa (MENA) and

East and South Asia and Pacific (ESAP) countries. This indicates that in these countries we should focus on factors other than public institutions to account for the economic gender gap. In this sense, some authors have emphasized the importance of social institutions, including cultural and religious aspects, in some countries of these regions (see e.g. Morrisson & Jütting, 2005; Branisa, Klasen, Ziegler, Drechsler, & Jütting, 2014).

In order to reveal potential differences across developing and emerging countries, we separately address developing economies, distinguishing in turn between low-income and lower-middle income ones, and emerging economies. In Table 5, as expected, Ethics and Corruption (EC) appears as a significant element in low-income countries, most of them being SSA countries. In this regard, according to Davis (2014), it is important to stress that the state capacity of low-income developing countries is sharply limited by resource constraints, making it difficult to recruit foreign courts, prosecutors, regulators, and plaintiffs into the project of combating local corruption and to create effective anticorruption institutions. Moreover, as the presence of corruption is especially significant in some less developed economies, and although it might not be advisable to totally eradicate corruption and fully enforce property rights because of its high cost (Acemoglu & Verdier, 1998), we should be aware that high levels of corruption may constitute a significant obstacle to reducing the economic gender gap. Regarding emerging countries, undue influence reveals as a remarkable factor associated to the economic gender gap. This circumstance seems to coincide with the high presence of Latin American countries (13 out of 23 emerging countries analyzed are from that region), in line with what has been discussed above.

Table 3. Summary of sensitivity analysis including variations in the baseline specifications.

	PR	GS	EC	UI
Baseline	0.019***	0.014***	0.007	0.010
	[0.005]	[0.004]	[0.006]	[0.007]
Including Myosf	0.019**	0.014***	0.016*	0.011
	[0.006]	[0.004]	[0.008]	[0.007]
Including Myosr	0.024***	0.016***	0.017*	0.015*
	[0.007]	[0.005]	[0.008]	[0.008]
Including Leabf	0.021**	0.013**	-0.005	0.000
	[0.006]	[0.004]	[0.007]	[0.008]
Including Fr	0.019***	0.010*	0.008	0.007
	[0.006]	[0.004]	[0.007]	[0.008]
Including Myosf and Leabf	0.020**	0.013**	0.006	0.002
	[0.007]	[0.005]	[0.008]	[0.008]
Including Myosf and Fr	0.014*	0.008*	0.011	0.005
	[0.006]	[0.004]	[0.007]	[0.007]
Including Myosr and Leabf	0.020**	0.011*	0.003	-0.001
	[0.007]	[0.004]	[0.008]	[0.009]
Including Myosr and Fr	0.018**	0.008*	0.012	0.007
	[0.007]	[0.004]	[0.007]	[0.008]
Including Myosf, Leabf and Fr	0.016*	0.008*	0.007	0.001
	[0.007]	[0.004]	[0.007]	[0.007]
Including Myosr, Leabf and Fr	0.018**	0.007	0.008	0.002
	[0.007]	[0.004]	[0.007]	[0.008]
Including UNDP Eduindex and UNDP Leindex	0.018**	0.013**	-0.002	0.005
	[0.006]	[0.004]	[0.007]	[0.007]

PR: Property Rights; GS: Guaranteeing Security; EC: Ethics and Corruption; UI: Undue Influence.
*** Significant at 1% level; ** Significant at 5% level; * Significant at 10% level.

Table 4. Summary of sensitivity analysis by groups of countries. Baseline

	PR	GS	EC	UI	Number of countries / Observations
Baseline	0.019*** [0.005]	0.014*** [0.004]	0.007 [0.006]	0.010 [0.007]	74 / 685
Latin America and the Caribbean	0.037*** [0.008]	0.025*** [0.007]	0.017* [0.007]	0.029*** [0.006]	16 / 151
Sub-Saharan Africa	0.021** [0.007]	0.013* [0.006]	0.029** [0.011]	0.017 [0.010]	28 / 247
Middle East and North Africa	0.020 [0.016]	0.012 [0.008]	0.012 [0.011]	0.017 [0.010]	5 / 47
East and South Asia and Pacific	0.005 [0.006]	0.010 [0.006]	-0.004 [0.005]	0.004 [0.005]	13 / 129
Europe and Central Asia	0.006 [0.004]	0.024* [0.011]	0.008 [0.005]	0.011* [0.005]	12 / 111

PR: Property Rights; GS: Guaranteeing Security; EC: Ethics and Corruption; UI: Undue Influence.
*** Significant at 1% level; ** Significant at 5% level; * Significant at 10% level.

Table 5. Summary of sensitivity analysis by income level. Baseline

	PR	GS	EC	UI	Number of countries / Observations
Baseline	0.019*** [0.005]	0.014*** [0.004]	0.007 [0.006]	0.010 [0.007]	74 / 685
Developing countries (Low income)	0.018** [0.006]	0.013* [0.005]	0.024** [0.008]	0.009 [0.006]	18 / 154
Developing countries (Lower-middle income)	0.012* [0.005]	0.013** [0.005]	0.011 [0.007]	0.010 [0.005]	33 / 317
Emerging countries	0.030*** [0.005]	0.023*** [0.005]	0.006 [0.008]	0.023*** [0.006]	23 / 195

PR: Property Rights; GS: Guaranteeing of Security; EC: Ethics and Corruption; UI: Undue Influence.
*** Significant at 1% level; ** Significant at 5% level; * Significant at 10% level.

5. Concluding remarks

In this paper, we study the extent to which public institutional environment is associated to the economic gender gap in Global South countries. Our findings suggest that public institutions are significantly related to the gender gap in economic participation and opportunity, so that deficient institutions seem to go hand in hand with higher economic gender gap. Among the specific institutional aspects examined, the failure to protect property rights and to guarantee security appear to be especially linked to a higher economic gender gap.

The results reveal that public institutions do not matter equally among groups of countries. In the case of emerging countries, particularly Latin America and the Caribbean, a broad range of institutional aspects of the public sphere, including undue influence on judicial and government decisions, appear to be closely related to economic gender gap. This tends to highlight the potential benefits of structural reforms in public institutions in these countries, not only in order to enhance economic efficiency, but also to propel economic gender equality. Improvements in the state's capability in the fields of property rights, security guarantees and judicial independence can be construed as key policy reforms to progress in labor participation, remuneration and representation in management and responsibility positions of women.

In this sense, specific governance reforms, such as promoting the implementation of participatory processes in the planning, execution and monitoring of public policies by civil society or taking advantage of the new technologies for a more transparent allocation of public services, can be regarded as potential instruments to narrow the economic gender gap in emerging countries.

In developing economies, particularly in SSA countries, problems of ethics and corruption emerge as a key matter against economic gender equality. Therefore, reducing corruption should be at the heart of gender equality policies, as corruption tends to perpetuate situations of discrimination against women, lowering the opportunities for women to have access, for example, to certain markets and credits and to the decision-making circles both in public and private sectors in governance, political regimes, and business. Nevertheless, it should not be forgotten that addressing corruption is not automatic and requires the concerted attention of a wide range of stakeholders, from politicians and government officials to the private sector and civil society organizations, as well as international development cooperation organizations and wealthy countries, since corruption operates globally.

The economic literature has documented well the importance of reinforcing public institutions for progressing in SDGs, such as those related to economic growth and reducing inequalities. Our findings highlight the pertinence of also delving into the role of public institutional environment to accelerate progress in SDG 5 on gender equality and the empowerment of women and girls in the Global South. Therefore, further research is needed to better understand the particular links between public institutions and the economic gender gap in each specific country environment, addressing each institutional variable in greater depth and analyzing the diverse aspects of each one in order to provide detailed guidance to policy makers and other stakeholders.

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Appendix

Table A.1. Institutional variables and their components

Property Rights (PR)
Property rights
Intellectual property protection
Guaranteeing Security (GS)
Business costs of terrorism
Business costs of crime and violence
Organized crime
Reliability of police services
Ethics and Corruption (EC)
Diversion of public funds
Public trust in politicians
Irregular payments and bribes
Undue Influence (UI)
Judicial independence
Favoritism in decisions of government officials

Source: Global Competitiveness Report (Schwab & Sala-i-Martín, 2017)

Table A.2. Descriptive statistics

Variable	Obs.	Min.	Max.	Mean	Std. deviation
EPO	685	0.31	0.88	0.64	0.11
PR	685	2.03	5.79	3.68	0.68
GS	685	2.56	6.36	4.33	0.74
EC	685	1.63	5.71	2.92	0.69
UI	685	1.69	5.34	3.09	0.66
GDPpc	685	721.18	31,951.02	7,071.40	5,839.29
Myosf	388	1.00	12.30	6.55	3.14
Myosr	388	0.10	1.35	0.83	0.21
Leabf	617	47.40	80.71	68.94	8.43
Fr	617	1.25	6.99	3.34	1.48
Eduindex	617	0.18	0.81	0.55	0.15
Leindex	617	0.35	0.89	0.71	0.12

Source: UNDP (2018), World Bank (2018), World Economic Forum (2018)

Table A.3. Definitions and sources of the variables (1/2)

Variable	Abbreviation	Definition	Source
Economic Participation and Opportunity	EPO	Composed economic gender gap index obtained by scaling the participation gap, the remuneration gap and the advancement gap. The participation gap is captured using the difference between women and men in labour force participation rates. The remuneration gap is captured through a hard data indicator (ratio of estimated female-to-male earned income) and a qualitative indicator gathered through the World Economic Forum's annual Executive Opinion Survey (wage equality for similar work). Finally, the gap between the advancement of women and men is captured through two hard data statistics (the ratio of women to men among legislators, senior officials and managers, and the ratio of women to men among technical and professional workers).	World Economic Forum (1)
Property Rights	PR	Index obtained in order to quantify to what extent are property rights (including financial assets) and intellectual property protected in a country.	World Economic Forum (2)
Guaranteeing Security	GS	Index obtained in order to quantify to what extent does the crime, violence organized crime (mafia-oriented racketeering, extortion) and the threat of terrorism impose costs on businesses and the reliability of police services in a country.	World Economic Forum (2)
Ethics and Corruption	EC	Index obtained in order to quantify the frequency of irregular payments and bribes, the frequency of illegal diversion of public funds to companies, individuals, or groups and the ethical standards of politicians in a country.	World Economic Forum (2)
Undue Influence	UI	Index obtained in order to quantify the independence of the judicial system from influences of the government, individuals, or companies as well as the favoristism of government officials to well-connected firms and individuals when deciding upon policies and contracts in a country.	World Economic Forum (2)
GDP per capita based on purchasing power parity (PPP) (constant 2011 international $)	GDPpc	PPP GDP is gross domestic product converted to international dollars using purchasing power parity rates. An international dollar has the same purchasing power over GDP as the U.S. dollar has in the United States. GDP at purchaser's prices is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. Data are in constant 2011 international dollars.	The World Bank (3)

Note: (1) Global Gender Gap Report (Hausmann, Tyson, & Zahidi, 2017); (2) Global Competitiveness Index (World Economic Forum, 2018); (3) World Development Indicators (World Bank, 2018); (4) Human Development Data (UNDP, 2018).

Table A.3. Definitions and sources of the variables (2/2).

Variable	Abbreviation	Definition	Source
Mean years of schooling, female (years)	Myosf	Average number of years of education received by women ages 25 and older, converted from education attainment levels using official durations of each level.	United Nations Development Programme (4)
Mean years of schooling, ratio female over male value	Myosr	Average number of years of education received by people ages 25 and older, converted from educational attainment levels using official durations of each level, female over male value.	United Nations Development Programme (4)
Life expectancy at birth, female (years)	Leabf	Life expectancy at birth indicates the number of years a newborn infant would live if prevailing patterns of mortality at the time of its birth were to stay the same throughout its life.	The World Bank (3)
Fertility rate, total (births per woman)	Fr	Total fertility rate represents the number of children that would be born to a woman if she were to live to the end of her childbearing years and bear children in accordance with age-specific fertility rates of the specified year.	The World Bank (3)
UNDP Education index	Eduindex	Average of mean years of schooling (of adults) and expected years of schooling (of children), both expressed as an index obtained by scaling with the corresponding maxima.	United Nations Development Programme (4)
UNDP Life expectancy index	Leindex	Life expectancy at birth expressed as an index using a minimum value of 20 years and a maximum value of 85 years.	United Nations Development Programme (4)

Note: (1) Global Gender Gap Report (Hausmann, Tyson, & Zahidi, 2017); (2) Global Competitiveness Index (World Economic Forum, 2018); (3) World Development Indicators (World Bank, 2018); (4) Human Development Data (UNDP, 2018).

Table A.4. The Augmented Dickey-Fuller (ADF) panel-data unit-root tests

Variable			Time trend not included		Time trend included	
			Statistic	p-value	Statistic	p-value
Economic Participation and Opportunity (EPO)	Inverse chi-squared	P	278.130	0.000	401.452	0.000
	Inverse normal	Z	-4.376	0.000	-5.465	0.000
	Inverse logit t	L*	-6.052	0.000	-9.734	0.000
	Modified inv. chi-squared	Pm	8.618	0.000	16.095	0.000
Property Rights (PR)	Inverse chi-squared	P	317.067	0.000	467.846	0.000
	Inverse normal	Z	-5.524	0.000	-7.029	0.000
	Inverse logit t	L*	-7.678	0.000	-11.977	0.000
	Modified inv. chi-squared	Pm	10.979	0.000	20.121	0.000
Guaranteeing Security (GS)	Inverse chi-squared	P	316.807	0.000	371.109	0.000
	Inverse normal	Z	-5.934	0.000	-6.068	0.000
	Inverse logit t	L*	-7.935	0.000	-9.648	0.000
	Modified inv. chi-squared	Pm	10.963	0.000	14.256	0.000
Ethics and Corruption (EC)	Inverse chi-squared	P	354.070	0.000	429.468	0.000
	Inverse normal	Z	-6.584	0.000	-6.886	0.000
	Inverse logit t	L*	-8.911	0.000	-11.699	0.000
	Modified inv. chi-squared	Pm	13.222	0.000	17.794	0.000
Undue Influence (UI)	Inverse chi-squared	P	463.151	0.000	467.155	0.000
	Inverse normal	Z	-8.336	0.000	-8.115	0.000
	Inverse logit t	L*	-13.018	0.000	-13.070	0.000
	Modified inv. chi-squared	Pm	19.836	0.000	20.079	0.000

Table A.5. The Im-Pesaran-Shin (IPS) panel-data unit-root tests

Variables	Time trend not included		Time trend included	
	Statistic	p-value	Statistic	p-value
Economic Participation and Opportunity (EPO)	-5.378	0.000	-5.303	0.000
Property Rights (PR)	-11.822	0.000	-7.823	0.000
Guaranteeing Security (GS)	-3.997	0.000	-2.931	0.002
Ethics and Corruption (EC)	-4.393	0.000	-3.747	0.000
Undue Influence (UI)	-8.220	0.000	-6.365	0.000