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Disparities in Economic Growth and Gender Inequality

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Abstract

This study explores how gender disparity and investments affected GDP growth in the five Great Maghreb countries (Algeria, Libya, Mauritania, Morocco, and Tunisia) from 1985 to 2011. The data is analysed using the GMM dynamical panel technique. The data show diverse investment and economic growth patterns. For 5% of the population, focused investments in productive sectors and infrastructure boost economic growth.

However, 10% of investments have a statistically significant negative impact on economic growth, which is alarming. This emphasizes the need for a more sophisticated understanding of investment allocation and resource diversion, which may limit economic progress for particular groups.

Also examined are how gender disparity affects Great Maghreb GDP growth. Gender imbalance reduces economic growth by 5%, according to studies. To maximize human capital and promote sustainable economic development, gender inequities must be addressed. This study emphasizes targeted and equitable investments as essential drivers of economic growth and the urgent need to address gender inequality to promote inclusive and strong GDP expansion in the Great Maghreb countries. These insights should inform regional economic and social development initiatives by policymakers and stakeholders.

Keywords: *Gender Disparity; Economic Growth; Detrimental Impact*

Introduction

Concern has been expressed within the international community regarding the severity of gender disparity. Because of this, the authors require a new method for measuring gender inequality. At the Fourth World Conference on Women in 1995, the United Nations Development Program (UNDP) proposed several significant new initiatives, including the gender-related human development indicator (GDI), the value of women's participation (IPF), and the human development index (HDI). As a result of these measurements, numerous approaches have been developed to combat discrimination against women. The UNDP conducted a more comprehensive evaluation of these criteria, and their findings revealed significant omissions. To address these shortcomings, they developed the IIG, a new metric for gauging gender inequality. The World Bank report shows how crucial gender equality is for economic development (Olopade *et al*., 2019).

One of the focuses of the milestone development goals is the reduction of gender inequality and the promotion of women's empowerment (MDGs). Despite this, gender disparity is prevalent not only in underdeveloped countries but also in affluent countries and practically everywhere else in the world. Inequality between the sexes in education may contribute to higher rates of child and maternal mortality, as well as higher fertility rates, and may also have a detrimental impact on the quality of

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education and health received by children. Also, it has the potential to influence economic growth in a variety of different ways. Both the direct and indirect implications of widening sex gaps have been explored at length in the academic literature. Indicators to analyse women's relative positions and examine how gender inequality affects economic growth are necessary because gender inequality is a serious issue in and of itself (Jayachandran, 2021; Levy *et al*., 2020; Heymann *et al.,* 2019; Huang *et al*., 2020).

The following describes the format of this paper: In the first section, how the indicator of gender inequality (GII) and the index of gender disparity (GII) were constructed have been discussed. There will be a discussion of both hypothetical and experiential links between gender discrimination and financial development in the section that follows.

Gender Inequality Index (GII)

Based on a fundamental model of a multidimensional phenomenon, the GII is a compound index that combines various individual variables. This led to the construction of the index. Composite indicators are widely acknowledged to be extremely useful tools because they provide straightforward comparisons between nations (Criscuolo *et al*., 2020).

Because economic processes are becoming more complicated, economists require a tool that takes into consideration all the components of a phenomenon that exists in multiple dimensions. When the analysis of a macroeconomic dimension requires the consideration of more than one variable at the same time, a composite index is the tool of choice (Criscuolo *et al*., 2020). In addition, the composite indicators are less difficult to comprehend than it is to find patterns that are similar across a variety of distinct indicators and thus become a powerful and valuable instrument in the analysis of the implementation of countries. In spite of this, multiple indicators have the potential to be poorly built and interpreted incorrectly (Karagiannis & Karagiannis, 2020). Hence, a theoretical foundation is necessary for a composite index to be truly useful. They will be able to pick and choose which variables to include in the index's weighting scheme, ensuring that the final score fairly represents all facets of the phenomenon under consideration. As a result, the gender inequality that exists in emerging nations is a problem that is both complicated and multidimensional, which justifies the use of the composite index (Khosravi *et al*., 2019; Stoet & Geary, 2019).

At the studio in The Hague, people found out about eight important ways in which men and women are different:

Gender Identity: This article talks about how gender and social factors, for example, how girls and boys are socialized, affect the way people think about their own gender. This dimension describes how a person learns to get along with other people and how society as a whole act.

Physical Integrity: In this case, "physical integrity" means that women are not hurt physically in order to control their sexuality or keep them from using birth control. According to the respondent, this aspect is made up of five factors: the amount of violence against women and whether or not it is accepted; the amount of feminization of the genitalia; how much contraception is used; and the number of children born to teenagers. This metric accurately portrays the body's independence (Worsdale & Wright, 2021).

One aspect of gender inequality is described by the family in relation to discrepancies in legacy and decision-making within households. In this analysis, four variables were used to measure the gender gap in family law: parental rights, legacy, the share of households led by women, and divorce rates (Worsdale & Wright, 2021).

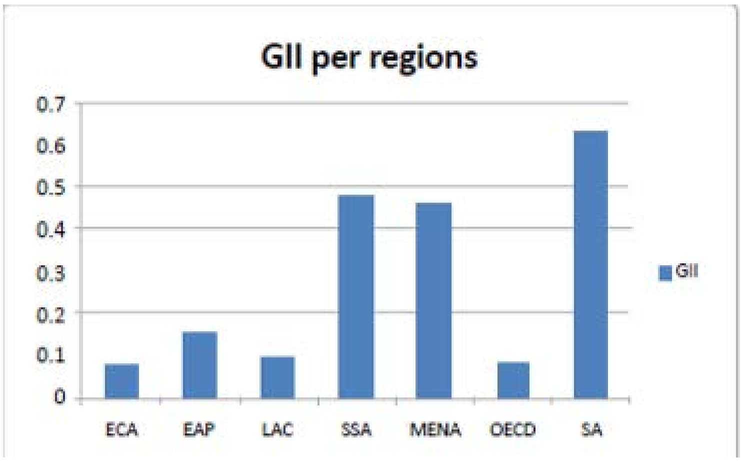
Policy: Power in politics is a measure of influence in government. The United Nations Development Program (UNDP) and others use the most visible indicator of political power held by women (Worsdale & Wright, 2021).

The educational opportunities available to a population are measured by the average literacy rates of men and women. The sum of the number of students enrolled in kindergarten through college is also a measure of this phenomenon.

Health: Life expectancy and maternal mortality rates are used to gauge health care access.

Approach to land, money, and other resources are all things that are thought of as economic resources.

Employment and income are related to their official and informal distributions (Worsdale & Wright, 2021). This is true for both paid and unpaid salary differences. Women's economic rights, the number of women in industrial, professional, and managerial fields, the share of working-age men and women in the labor force, and the gender wage gap all contribute to this dimension's overall measurement (Figure 1).



Source: Khayria & Feki (2015)

Figure 1: The Enormous Regional Gap

It can be seen in this chart that there is a significant disparity between the regions. The region of South Asia (SA) has the lowest score, averaging 0.63 out of 1. A high incidence of intolerance against women in terms of individuality, family, and health can provide an explanation for these findings. The goal of promoting women's economic empowerment and including them in the process of financial advancement should be to decrease disparities in the areas of individuality and personal life.

After averaging 0.48 and 0.46, respectively, nations in the Middle East and North Africa (MENA) and sub-Saharan Africa (SSA) were taken into consideration. The condition of women in sub-Saharan Africa is marked by prejudice in many areas, including access to information and financial resources, as well as substantial threats to their bodily integrity. Because of this circumstance, there may be obstacles in the way of gaining access to informative and financial resources. The gender gap in sub-Saharan Africa has a relatively modest association with the region's economic performance.

Women in the Middle East and North Africa encounter significant challenges in the realms of employment and political participation. Consequently, there exists a notable disparity in the representation of women in roles of economic and political power. There is a limited amount of information available.

Gender Disparity and Economic Growth: Theory and Evidence

Evidence linking gender disparity to economic development is scant. The researchers are split on whether or not gender inequality contributes to economic growth; some argue that it does, while others show the detrimental effects it can have. According to Shannon *et al*. (2019), slow economic growth and high reproduction rates are to blame for the gender wage gap. These factors contribute to a lower level of education among women. The same conclusion may be drawn from a study that used a model with overlapping generations. The education of women is seen as advantageous for the expansion of a country's economy.

Jayachandran's research from 2021 shows that the difference in investment between male and female enrollment can be used to measure how gender inequality affects economic growth. Several empirical studies' regressions showed that gender inequality in schooling boosts economic expansion. This turned out to be the opposite of what was expected.

It is well known that there is a link between unequal education for men and women and slower GDP growth. The average human capital suffers, and smart girls who would do better in school than boys are not allowed to go to school (Levy *et al*., 2020). People have thought that differences in education between men and women hurt the quality of human capital as a whole and slow down economic growth. Heise *et al*. (2019) came to the same conclusions about the effects of education on the population after looking at the externalities caused by women's education, such as lower birth rates.

The effects of the gender pay gap on women's labor force membership were examined by French, Mortensen and Timming (2019). They claimed that women might still opt to enter the workforce despite lower pay if the benefits outweighed the costs. Baldwin and Johnson were lamenting the repercussions of the gender pay gap when they brought it up.

In addition, the job gap is a topic that is covered in the research. For instance, Kalsen and Lamanna (2009) conducted a cross-country study covering the period 1960–2000 to investigate the impact that the salary difference between men and women had on economic growth. According to the findings, the disparity in the number of men and women who hold jobs is one of the primary factors that accounts for growth differences between nations. One of the primary factors contributing to underdevelopment in certain regions, most notably the Middle East and North Africa, is the low rate of female participation in political and economic life (Mansha *et al*., 2022).

Research Methodology

To achieve the goals of this investigation, a GMM dynamic panel analysis was conducted using time series data spanning from 1985 to 2011. To investigate the influence of gender inequality on the rate of GDP growth in the Maghreb region, the following criteria are utilized:

$LY = c + \sigma LY + \beta 1LNVit + \beta 2LPOP + \beta 3INGit + \varepsilon$ (1)

With: $i=1……N$, $t=1……T$

Phipps *et al*. (2019) indicated that gender inequality is assessed using the indicator ING, while GDP per capita growth is represented by the variable LY. Investment growth is denoted by L INV, population growth by L POP, and the error term is symbolized as εit.

Results and Discussion

The GMM dynamic panel system approach was employed to estimate the parameters, enabling the resolution of heteroscedasticity-related issues. Based on the available data, it has been determined that the gender inequality index exhibits a statistically significant negative association at the 5% level. The findings of this research demonstrate that the presence of gender disparity has a detrimental effect on the accumulation and utilization of human capital, consequently impeding the pace of economic growth. This approach serves to strengthen economic theory. The magnitude of the negative impact on the investment rate, amounting to 10%, is considerable. Consequently, the promotion of gender equality across various contexts has the potential to serve as a viable strategy for enhancing economic growth (Huang et al., 2020). The reason why these findings support the position of the World Bank is due to the notable and encouraging population growth rate of 5%. This analysis showcases the manner in which gender inequality, as conceptualized by Bloom and Williamson, exerts a favourable influence on the growth of the population. Ultimately, under the assumption of a positive sign at a significance level of 5%, the lagged endogenous variable demonstrates statistical significance. The aforementioned analysis demonstrates the subpar comparison of annual economic growth to previous years, as evidenced in Table 1 (Altuzarra, Gálvez-Gálvez & González-Flores, 2021; Bivand, Millo & Piras, 2021).

There were 130 observations total.

Sargan test: Chi square (125) = 123.97, AR (1) test: N (0,1) = -5.31

[0.000], AR (2) test: N (0,1) =-1.26 [0.207]

Table 1: Outcomes of the GMM Valuation

	Coefficient	Standard	T-Stat	Sig
LYit-1	0.9382707	0.0199713	46.98	0.000
LPOP	0.303238	0.0132546	2.29	0.024
LINV	0.577998	0.0321051	-1.80	0.074
ING	-0.1861084	0.084255	-2.21	0.029
CONS	0.5560719	0.2438044	2.28	0.024

Source: Khayria & Feki (2015)

The research findings reveal that gender disparity has a significant and detrimental impact, leading to a reduction in economic growth of approximately 5%. This discovery emphasizes the importance of addressing gender inequalities to fully harness the region's human resources and foster long-term economic growth. The study highlights focused and fair investments as crucial catalysts for economic development and emphasizes the urgent need to tackle gender inequality as a strategy to achieve inclusive and robust GDP growth in the Great Maghreb nations (Criscuolo et al., 2022). Policymakers and stakeholders are recommended to consider these insights while formulating effective strategies that promote economic advancement and social development within the region.

Conclusion

The importance of this study can be analysed in two separate dimensions, as mentioned in the previous section. In the initial section of this article, a research endeavour is undertaken to ascertain the extent to which gender bias continues to be prevalent in contemporary society. Furthermore, the consideration of diverse perspectives becomes imperative when addressing the issue of the gender gap, as it poses a significant obstacle to the economic growth of a nation. The Gender Inequality Index (GII) is a metric that enables the assessment of the extent to which individuals of different genders in developing nations can be differentiated. The examination and discussion of gender disparities have garnered significant attention and discourse within academic circles and among individuals involved in shaping public policy. Despite its increased prominence as a result of inherent factors, economists have acknowledged gender as a significant macroeconomic element. This phenomenon persists, notwithstanding its significant notoriety as a subject matter, as elucidated in the preceding statement. This study presents empirical findings that demonstrate the presence of gender inequality in the Maghreb region, which in turn hinders economic progress. The region of the Maghreb encompasses several nations, namely Morocco, Algeria, and Tunisia. The elimination of gender disparity is imperative, not only for intrinsic reasons but also due to the potential economic advantages that could be realized upon its attainment. Hence, it is imperative to promptly address this issue.

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Conflict of Interest

The authors declare that they have no conflict of interest.

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