Economic Growth and Kidnapping in Colombia: A Focus on Gender

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Citación recomendada

Bernal-Bellón, J. R. (2022). Economic Growth and Kidnapping in Colombia: A Focus on Gender. Equidad y Desarrollo, (39),. https://doi.org/10.19052/eq.vol1.iss39.10

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José Reyes Bernal-Bellón*

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Abstract

Theoretical and empirical studies showing the relationship between economic growth and conflict have increased over time, but there are no studies considering the relationship between economic growth, conflict, and gender. There is even less research examining it from a gender perspective growth. This work focuses on analyzing and quantifying the impact of conflicts through the variable kidnapping in Colombia's economic growth from a gender perspective through panel data methodology and the ordinary least squares method. The overall conclusion is that the abduction of men and women negatively affects economic growth in each of the regions and the country at the aggregate level.

Crecimiento económico y secuestro en Colombia: un foco en el género

Resumen

Los estudios teóricos y empíricos que muestran la relación entre crecimiento económico y conflicto han aumentado con el tiempo, pero no existen estudios que consideren la relación entre crecimiento económico, conflicto y género. Hay aún menos investigaciones que lo examinen desde una perspectiva de género. Este trabajo se enfoca en analizar y cuantificar el impacto de los conflictos por la variable secuestro en el crecimiento económico

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de Colombia desde una perspectiva de género a través de la metodología de datos de panel y el método de mínimos cuadrados ordinarios. La conclusión general es que el secuestro de hombres y mujeres afecta negativamente el crecimiento económico de cada una de las regiones y del país a nivel agregado.

Introduction

There are some theoretical and empirical studies showing the relationship between economic growth and conflict but little linking economic growth with gender. There are no studies relating aspects of the conflict from a gender perspective on growth. This work aimed to analyze and quantify the impact of conflict on Colombia's economic growth, considering kidnapping as a variable from a gender perspective through the panel data methodology and through the ordinary least squares method. The work is divided into 5 sections. The first section is this introduction. The second part relates conflict to economic growth from a gender perspective and presents some background. The third part highlights the facts of kidnapping and economic growth in Colombia for the period 1970-2010. In the fourth part, the respective estimates between economic growth and kidnapping through panel data and the methodology by OLS, and the Granger causality test are presented. Finally, in the fifth section, the main conclusions are stated.

Economic Growth, Conflict, and Gender

Conflict and Economic Growth

Among the studies between conflict and economic growth are those by Romer (1990), who identified social conflict and political instability originate low rates of economic growth, as well as the prevalence of this reality in all economies where there are conflicts. From a macroeconomic point of view, it is assumed that the channels through which the conflict affects negatively the level of economic activity are the following:

■ Incidence of conflict on savings. If the conflict is strong, there will be dissaving and vice versa.

■ Impact on the capital stock. Conflict can cause damage to the country's infrastructure, target resources to illegal activities, and not allow the accumulation of physical and human capital, leading to low levels of technology. Additionally, continuous kidnapping—as a result of the conflict—has a negative impact on the production and productivity of men and women, who, directly or indirectly, suffer from this scourge.

■ The negative impact on investment results in a tax for entrepreneurs because the opportunity cost increases. In this context, expectations of a kidnapped businessman, who is asked for ransom money or affected by armed groups, should be impacted negatively; thus, investment levels should drop as a consequence.

■ Negative impact on public spending and fiscal deficit. There is a diversion of resources from social spending to finance war and, thus, an increase in inequality and poverty.

■ Negative impact on the labor market. There is a deviation of human capital into the armed forces or migration of skilled labor to other countries. In addition, the conflict by kidnapping reduces the amount of male and female workers, affecting production, labor productivity, and total factor productivity.

■ Impact of kidnapping on economic activity. Brakes production capacity of labor and impacts inventions and innovations; *i. e.*, a drop in the generation of patents.

At a macro level, it also suggests that there may be an inverse correlation between the number of kidnappings and the share of profits in income. As expressed by classic economists Smith and Ricardo, distributive disputes and poor income distribution are the cause of conflict among classes. Poverty and inequality are central elements of human confrontation and social conflict that have been the subject of debate among theorists of social sciences. For example, for classical economists, there was a direct relationship between inequality, wealth, and social confrontation. Smith argued that inequality was the main cause of poverty, but this inequity was justified as an inherent foundation of the economic structure that guaranteed the stability of the social order. By analyzing the process of the accumulation of capital, Smith concluded that the division of labor drives the growth of wages, but it does not guarantee the reduction of inequity. For Ricardo, the

accumulation of capital is a part of the distribution process, which fuels endless conflicts among social classes. The main conflict is between wages and profits, but the landlords collide against capitalists and workers.

As for kidnapping, it can lead to reducing the rate of savings in an economy. This means that it is preferable for the agents to consume and spend their income on goods and services they have to deliver in exchange for freedom. It will be recalled that this behavior is one of the stylised facts of the conflict and growth, only that in this context, a lower savings rate generates more growth induced consumption on economic activity in general effects. However, taking the guerrilla or paramilitary groups in Colombia as examples, they kidnaped civilians rather than members of the armed forces. It happended because these illegal armed groups had a trace of their wealth and banking transactions. And if it was not the guerrilla or paramilitary groups who kidnaped, common criminals had the information of the wealth of those kidnaped. There may also be impacts of conflict on economic and political outcomes. These effects can determine the election results of representatives at any level—i. e., Presidents, governors, etc.

At the micro level, the relationship between conflict and economics dates from many years, but it is not explicit. Among other things, it requires an understanding of the concept of conflict. For example, Vilfredo Pareto (1945) understands it as a distribution struggle in production and productive activities. If it is defined as a class struggle, then Marxism has much to say about the behavior of the economy and the class struggle among landowners, capitalists, and workers.

Gary Becker (1960-1980) explicitly involved conflict within the economic analysis. His theoretical proposal on the economics of crime earned him the Nobel Prize in 1992. In general, there are many studies on economics and conflict, but very few on economic growth, conflict, and gender.

Economic Growth and Gender

The study of the relationship between economic growth and gender has increased in recent times. The consensus is that the conflict generates lower growth, which destroys essential human capital—men and women with physical and intellectual characteristics to perform any work—for developing. In this sense, the loss of human capital does not differentiate gender because, in fact, it adversely affects the economic dynamics of a country or specific region. The question that must be

asked is to what extent does differentiating by gender human capital loss contribute to the decline of economic growth? In this specific work, the question would be to what extent does the kidnapping of men and women in Colombia contribute to the decline of economic growth?

There are approaches that have been raised to establish the links between economic growth and gender. One approach suggests that women are not represented in the economic discipline and, therefore, it is necessary to begin to involve them in empirical and theoretical studies. This type of approach has been called *Participatory Action*.

Another approach suggests that the tools used by the economic discipline are not the problem, but the disadvantage is basically their application. This type of approach has been called *Feminist Empiricism*. Likewise, feminism differences focus on strictly the one between men and women in the theory and practice of discipline. Examples of this approach are the studies on the wage gap between men and women for the same positions in both the public and the private sectors.

Another approach to the inclusion of gender in economic discipline is called *Feminist Postmodernism*, which seeks to investigate whether this concept of gender is useful or not for economic analysis. To that effect, it is indispensable to progress on empirical studies to validate the usefulness of the concept of gender. Finally, the focus on feminist constructionism states that it is necessary to consider new factors, including gender evaluating at the same time these inclusions, as well as those which are left out of the analysis to pinpoint the enrichment of economic theoretical and empirical grounds (Nelson, 1995).

One approach raises the distinction between *single mothers* against other traders in a growth model called Ramsey-Kass-Koopmans. This model implies that single mothers obtain lower levels of consumption in the long term than men and women without children; therefore, a reduction would be seen in the growth rate of the economy. Similarly, this model implies that *single mothers* face a structural poverty problem because they have lower levels of consumption than other agents since they must share part of their consumption or income with their children; this poverty can only be resolved with a substantial increase in their salaries (Villegas, 2012).

At the macro level, economic feminism focuses on the non-neutrality of macro policies. Macro policies to be added unknown gender classification and dealing with issues such as the stability of the price level, the growth of the economy, the balance of payments, unemployment rate, trade, finance, etc. Both theoretical

and empirical grounds and the creation of macro policies gender classification are completely ignored. The focus of economic feminism tries to overcome these shortcomings.

At the micro-level, the inclusion of gender has been embodied in different theoretical and empirical studies. Gender mainstreaming in the theoretical and empirical analysis of the labor market, as well as the analysis of labor remuneration or salary and their distribution within the home, have generated a large literature. Also, work on wage differentials between men and women worldwide has been widely accepted and oriented policies to reduce these gaps.

Complementing the above, economic feminism has also focused on involving the economy of care in economic analysis. This approach analyzes unpaid domestic work, which is invisible in the formal economy. This activity was contemplated to be included, even within national accounting, as an activity that affects the behavior of the gross domestic product in the economies. Thus, the economy of care, dealing with daily activities, seeks to engage in economic analyses search to examine the generation of wealth within societies.

Some Background

There is extensive literature on conflict and economic growth around the world. Cook (2014) performed a study of Africa that relates the behavior of ethnic violence and massive policy between 1870 and 1940 to economic activity, specifically to the generation of patents. The main conclusion reached by this study is that the generation of patents responds positively to the reduction of violence. The result implies that the conflict affects the direction and quality of production, as well as the growth rate of the economy over time.

Valencia-Agudelo (2006) provides a synthesis of the literature between 1990 and 2006. The document highlights the work carried out in this period in which conflict is related to the economic analysis; the economic and social costs of conflict are presented, as well as the different actors, behaviors and resources spent on it. The report concludes that there has been a development of a theoretical proposal to understand the misconduct of agents; these approaches are addressed from microeconomic theory. However, it is emphasised that this analysis should involve social, political, and economic aspects for a better understanding of the conflict and its implications at national and international levels.

Hodler and Raschky (2014) carried out a study in which they examined the relationship between economic shocks and their impact on social conflicts in some African countries between 1992 and 2010. Overall, the authors found that adverse shocks in the economy or significant drops in the growth rate of the economy raise the probability of generating major social conflicts. This relationship can be explained by the fall in the rate of employment, loss of income, increase in poverty, etc. Although the text does not make it explicit.

Rodríguez (2008) makes a reflection on neutral macroeconomic policies and concludes that they affect gender status, a hypothesis that was already pointed out by economic feminism. The focus of economic feminism, for example, argues that neoliberal policies, such as trade liberalisation, generate greater gender inequality, which was evident throughout Latin America. The central argument is that, as a result of trade, liberalisation was installed in the countries that used different industries and fundamentally precarious female labor to meet the maquilas. Likewise, privatisation led to the displacement of labor, which forced women to extend their working days for twice as long. In general, the article argues that economic growth given by trade liberalisation affects and worsens gender inequalities; it is in this context that macroeconomic policies are not neutral. While the article does not refer to conflict and growth, these linkages can be explained through the conflict that arises in most unequal accumulation and gendered inequality.

Ali (2011) conducted research on the economic costs of the armed conflict in Darfur. He included in his analysis the costs of the destruction of infrastructure and of the sector of exports and capital formation, the loss of lives and the efforts of the military war spending. Without going into a gender study, the author quantifies the income lost by the loss equivalent to 2.6 billion human lives, 10 billion spent by the government in the war and 7.2 billion in losses productivity by displaced within Darfur. In summary, Darfur's war has cost nearly twice its GDP, equivalent to 162%, only government spending for war annually allocates 24% of the GDP.

Many papers, similar to Ali's (2011) on the economic costs of the armed conflcit have been generated in the last two decades (Abadie & Gardeazabal, 2003; Bilmes & Stiglitz, 2006; Bozzoli et al., 2008; Bozzoli et al., 2010; de Groot, 2010; Fitzgerald, 1987; Grobar & Gnanaselvam, 1993; Lopez & Wodon, 2005; Pradhan, 2001; Roux, 1996). All these works show enormous costs of social conflicts and a negative impact on the level of economic activity; precisely, due to those resources for war or the destruction of physical and human capital and the loss of productivity in the country. However, none of them considers gender as a variable,

perhaps, because war or social conflict does not discriminate deaths of children, youth, women and men, or the same violations of human rights or the violation of international humanitarian law. In fact, there are few studies on economic growth and gender.

Riveros (2013), in a study developed for Colombia, relates the behavior of the economy to the Colombian armed conflict. He proposes an index of the Colombian armed conflict through the principal components analysis methodology and found that conflict negatively affects economic growth because it distroys infrastructure and productivity falls. However, the article does not develop a gender perspective to show the quantification of the conflict, especially kidnapping, in the dynamics of Colombia's economy.

López (2011) evaluated the impact of defense spending in Colombia's economic growth at the regional level between 1990 and 2006 and concluded that there is no strong evidence that this expenditure has generated positive effects on growth.

Some Facts on the Relationship between Kidnapping and Economic Growth

The impact of Colombia's conflict on its economy can be studied from one of its edges, such as kidnapping and specifically in terms of gender kidnapping. Between 1970 and 2010, the average growth rate was 3.9%, and the total number of kidnappings were 39,010, a statistic that exceeds the total population of most Colombian municipalities. The dynamics of kidnapping increased substantially in the early 1970s and late 1980s, as shown in Figure 1. In the first ten years, the total number of kidnappings rose to 244, and for the next decade, this phenomenon was multiplied by 13, ascending to 3,125 kidnappings. This reflects the State's inability to cope with this phenomenon, which has considerable economic implications.

From the early years of the 1990s, the scourge of kidnapping dynamics peaked. It went from 3,125 in the 1980s to a total of 17,891 in the 1990s, with an increase of 573%. It is incomprehensible how the violation of international humanitarian law by that act is not a priority of the State. In a single year (2000), the figure scandalously increased by 3,546 kidnappings, more than the total kidnappings of the previous two decades. The consequences of this fact correlate with the average behavior of the growth rate of the economy. In the 1970s, the average growth rate was 5.7% for 244 kidnappings, but by the 1980s, the average growth rate was 3.1%,

with an increase of 1,180% in the kidnapping rate; in the the 1990s, economic growth was about 2.5% consistent with an important role in the increase kidnapping rate of 573%. This behavior of kidnapping took their cumulative effects on Colombia's economic growth.

Figure 1.

Total kidnappings 1970-2010

Source: CNMH (2013).

Figure 2.

Growth Rate of Colombia´s Economy (GY) 1970-2010
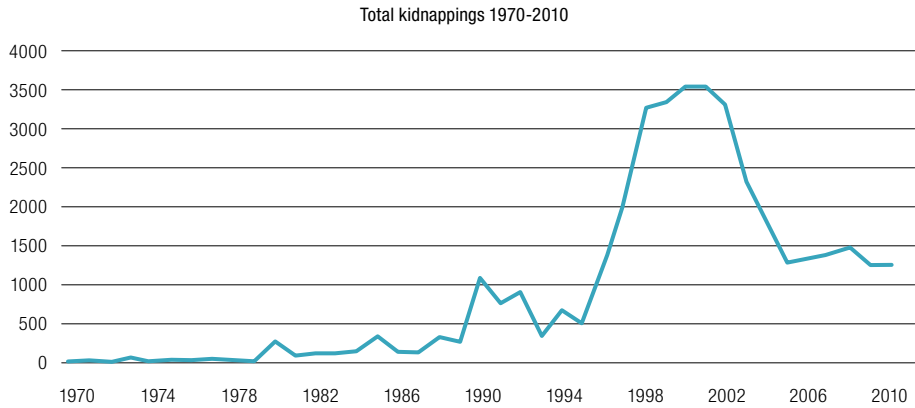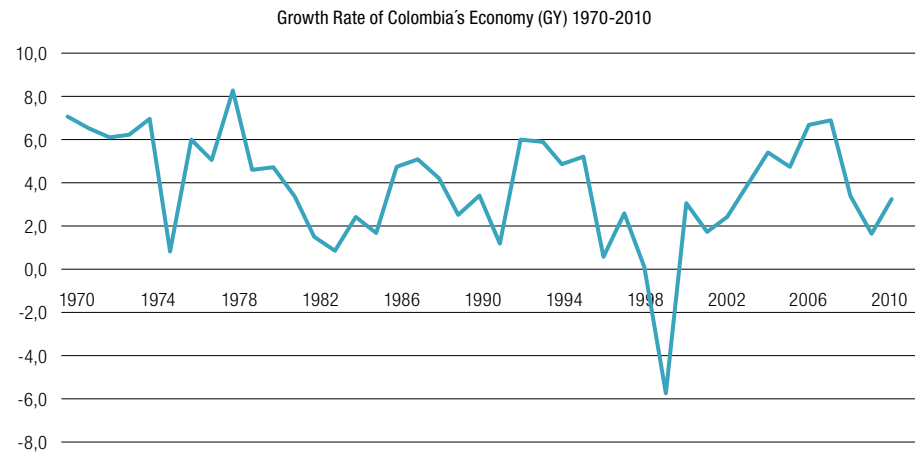
Source: DANE —Departamento Administrativo Nacional de Estadística—.

In the 2000s, kidnapping was reduced but not significantly, either because there was significant State intervention through the democratic security policy or because society was tired and made possible a closer alliance between the armed forces and itself to expose and prosecute those responsible. In the latter period, the total kidnappings fell from 17,891 to 15,328, its reduction was relatively low (14.3%) as it is well known that defense spending was one of the largest in the country's history, justified by the national democratic security policy. Finally, in the 2000s, the average growth rate of Colombia's economy was 3.9%, also consistent with an incipient decline in the kidnapping rates (-14.3%). Thus, kidnapping has had disastrous consequences on economic growth. In the first twenty years of analysis (between the 1970s and the 1990s), the average rate of economic growth was 4.4%, with a total of 3,369 kidnappings, while for the rest of the period analyzed (1990-2010), the rate of economic growth only reached 3.2% with a total of 35,641 kidnappings and a growth of over 900%. Undoubtedly there is a strong negative correlation between kidnappings and economic growth. Figure 3 shows the behavior of women kidnapped in Colombia.

Figure 3.

Female Kidnapping 1970-2010
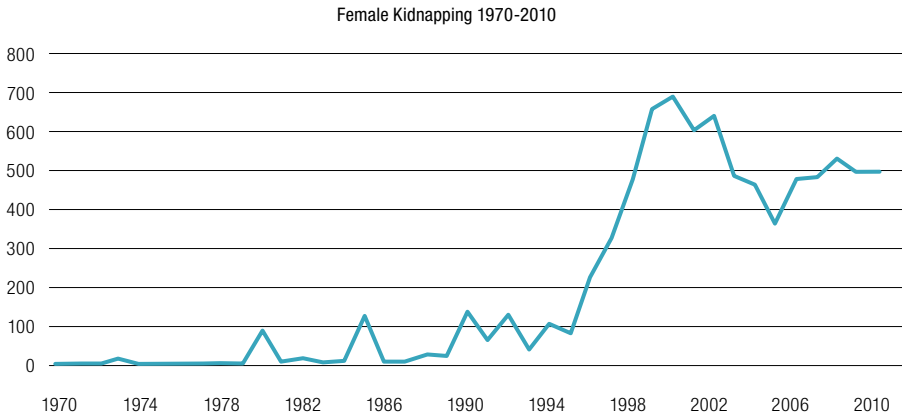
Source: CNMH (2013).

As with all kidnappings in Colombia, the dynamics of female abduction seem to follow the same behavior. In the 1970s, they reached a value of 5 abductions per year and a total of 50 throughout the decade. In the 1980s, kidnappings per female increased an average of 36 per year to 355; i. e., female kidnappings multiplied by seven.

For the 1990s, this kidnapping went from 355 to 2,268; *i. e.*, in this decade, women's abduction growing rate was 538%. The abduction of women by groups outside the law, guerrilla or paramilitaries, grew substantially. A question araises: What causes this significant increase in women abduction? However, solving it exceeds the dimensions of the research.

Female or women kidnaping was not reduced as expected in the 2000s; instead, it increased from 2,268 to 5,738; i. e., it grew by 252%, reflecting an average of more than 500 kidnappings per year or more than one (1) kidnapping a day.

Looking at figures 2 and 3, it is evident that the largest number of kidnappings in one year happened in 1989 (3,351), of which 658 were female, which corresponds with the biggest drop in the growth rate of the economy (-5.6%). Likewise, the second highest number of abductions of men also corresponds to the same year (2,693 kidnappings), the equivalent of the entire population of any of the small towns in Boyacá, such as Corrales (2,437 inhabitants). Is this, or is not, an aberrant act for Colombian society?

Based on figures 1, 3 and 4, the same behavior of kidnappings can be set, i. e., 1989 and 1990 have the highest points of the kidnapping curve. Figure 2 shows the behavior of economic growth.

Figure 4.

Male Kidnapping 1970-2010
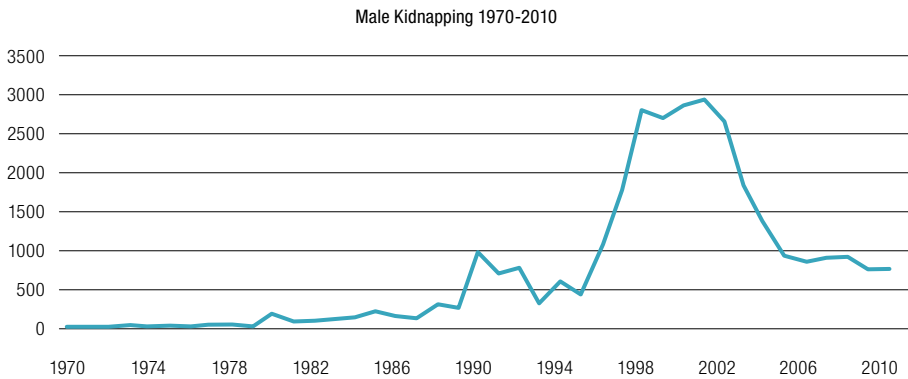
Source: CNMH (2013).

Figure 4 shows the dynamics of male kidnapping in the past 40 years. The low relative constancy of kidnapping of men by armed groups in the 1970s reached an

average of 20 kidnappings a year, for a total of nearly 200 in the entire decade. In the 1980s, this average multiplied by 8 and reached an outrageous number of kidnappings throughout the period, with 1,650 abducted men; that is, the percentage growth of men between the two decades was 800%. This kidnapping intensified in the decade of the 1990s. From 1,650 kidnappings in the 1980s to 12,078 kidnappings in the 1990s, the percentage increase by 632%; the number of kidnappings is equivalent to the entire population of Jericó in Antioquia, Colombia. In fact, there are many municipalities with about 12 thousand inhabitants. In the 2000s, the number of kidnappings also increased exorbitantly. It went from 12,078 to 16,678, an increase of 39%, which meant 4,600 kidnappings over the previous decade.

Estimates

Methodology

This work is based on estimates of the growth rate of the provincial economy and kidnapping in Colombia's departments through the method with fixed effects panel data for the period 1980-2010. Additionally, estimates are made by the method of least ordinary least squares between economic growth and the number of kidnappings nationwide; i. e., consolidating all the information, at the country level, for both economic growth rate and total kidnappings of men and women. The variables used were the percentage change in the GDP at national and regional levels, as well as the total percentage growth of abduction or kidnapping per year or the logarithm of kidnapping.

Model Proposed

The model proposed for each estimation was linear and can be represented in the following equations:

$$GY = \beta 0 + \beta 1 * DLST + \text{\euro} \tag{1}$$
$$GY = \mu 0 + \mu 1 + \mu 2 ** DLGm\ DLGF + \text{\euro} \tag{2}$$

GY represents the growth rate of the regional economy if the estimates are through the panel data approach. If the methodology is based on the method of ordinary least squares, it represents the growth rate of the economy at the aggregate level. $\beta 0$ and $\mu 0$ are constants estimates and may be lower, higher, or equal to nought.

$\beta 1 = \mu 1 = \mu 2 < 0$, that increases the growth rate of total kidnappings DLST, or increases in the growth rate of male kidnappings DLGm and the Female DLGF lead to decreases in the rate is then expected growth of the economy either at the departmental level or aggregate level.

Results

Table 1 shows the estimates of the growth rate of the regional economy of the method presented through panel data for the period 1980-2010.

Table 1. Panel Data Estimates

Dependent Variable: GY			
Method: Panel Least Squares			
Date: 09/18/14 Time: 08:49			
Sample (adjusted): 1981-2010			
Periods included: 30			
Cross-sections included: 25			
Total panel (unbalanced) observations: 655			
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.900869	0.193375	20.17258	0.0000
DLST	-0.418863	0.250412	-1.672699	0.0949
Effects Specification				
Period fixed (dummy variables)			
R-squared	0.161764	Mean dependent var	3.866855
Adjusted R-squared	0.121464	S.D. dependent var	5.250809
S.E. of regression	4.921596	Akaike info criterion	6.071314
Sum squared resid	15114.60	Schwarz criterion	6.283564
Log likelihood	-1957.355	Hannan-Quinn criter.	6.153612
F-statistic	4.014013	Durbin-Watson stat	1.907831
Prob(F-statistic)	0.000000		

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"The increase in 1% of total kidnapping (men and women) reduces the growth rate of the economy by 0.41%. The results also show that the growth rate of kidnappings explains 16% of changes in the growth rate of the economy".

The estimate of the rate of economic growth compared to the percentage change in the total number of kidnappings in the country through the method data panel (Table 1) shows an inverse relationship; i. e., the higher the growth of kidnappings in the country, the lower the growth of the economy in Colombia's departments. The estimate shows that the increase in 1% of total kidnapping (men and women) reduces the growth rate of the economy by 0.41%. The results also show that the growth rate of kidnappings explains 16% of changes in the growth rate of the economy.

To show if there is a two-way causality between kidnapping and economy's growth rate, the Granger causality test was performed. The results are as follows:

Table 2. Granger Causality Test for Growth of All Abductions and Growth of Colombia's Economy

Pairwise Granger Causality Tests			
Date: 09/18/14 Time: 08:52			
Sample: 1980 2010			
Lags: 2			
Null Hypothesis:	**Obs**	**F-Statistic**	**Prob.**
DLST does not Granger Cause GY	584	2.44734	0.0874
GY does not Granger Cause DLST		1.07554	0.3418

The Granger causality test in Table 2 shows the hypothesis that the kidnappings' growth rate does not cause the economy's growth rate; namely, the kidnappings growth rate if it causes rejecting behavior of a Colombian economy with a probability of 99%. In turn, the test shows that the growth rate of the economy does not cause the growth rate of kidnappings in the country.

The most relevant estimate concerning this work is the impact of kidnapping by gender on Colombia's economic growth (Table 3).

Table 3. Panel Data Estimates by Gender

Dependent Variable: GY				
Method: Panel Least Squares				
Date: 09/18/14 Time: 08:58				
Sample (adjusted): 1983 2010				
Periods included: 28				
Cross-sections included: 25				
Total panel (unbalanced) observations: 427				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.711131	0.247023	15.02343	0.0000
DLGM	-1.153469	0.342285	-3.369911	0.0008
DLGF(-2)	-0.432475	0.252228	-1.714619	0.0872
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0.133936	Mean dependent var		3.682117
Adjusted R-squared	0.077642	S.D. dependent var		5.294137
S.E. of regression	5.084461	Akaike info criterion		6.151399
Sum squared resid	10340.70	Schwarz criterion		6.407917
Log likelihood	-1286.324	Hannan-Quinn criter.		6.252719
F-statistic	2.379222	Durbin-Watson stat		1.624691
Prob(F-statistic)	0.000214			

The results of the panel data estimation of the economy's growth rate against kidnapping in Colombia by gender (Table 3) show an inverse relationship between the economic growth rate and the rate of kidnappings — male and female— and a greater impact of the growth of male kidnappings on the growth rate of the economy—i. e., an increase of 1% in the abductions of men reduces the economy's growth by 1.15%, whereas if gender kidnappings female increase the 1%, the economic growth is reduced by 0.443%. These results have a confidence level greater than 98%, while the model

"The results […] show an inverse relationship between the economic growth rate and the rate of kidnappings — male and female— and a greater impact of the growth of male kidnappings on the growth rate of the economy".

explains 14% of the relationship between the economy's growth rate and the number of kidnappings by gender.

Table 4 presents the causality between the economy's growth rate and the abduction of males. The result shows that the rate of male kidnappings causes the growth rate of the economy, while the result is not given in reverse; that is, the growth rate of the economy does not cause an increase in kidnappings of males.

Table 4. Causality between Economic Growth and Male Gender

Pairwise Granger Causality Tests			
Date: 09/18/14 Time: 08:59			
Sample: 1980 2010			
Lags: 2			
Null Hypothesis:	Obs	F-Statistic	Prob.
DLGM does not Granger Cause GY	578	3.17270	0.0426
GY does not Granger Cause DLGM		0.99380	0.3708

The Granger causality test for Colombia's economy growth rate in relation to the growth rate of female abduction (Table 5) also shows the relative increase in abductions of women because of the economy's growth rate; i. e., it rejects the null hypothesis that the rate of female kidnappings causes the growth of Colombia's economy. In this context, it can be concluded that any abduction, regardless of gender, has a negative impact on the economy's growth rate.

Table 5. Causality between Economic Growth versus Female Gender

Pairwise Granger Causality Tests			
Date: 09/18/14 Time: 09:01			
Sample: 1980 2010			
Lags: 2			
Null Hypothesis:	Obs	F-Statistic	Prob.
DLGF does not Granger Cause GY	397	3.08633	0.0468
GY does not Granger Cause DLGF		0.26279	0.7690

The estimate by ordinary least squares method for Colombia at the aggregate level presented the following results:

Table 6. Nationwide Estimate

Dependent Variable: GY				
Method: Least Squares				
Date: 09/18/14 Time: 10:28				
Sample (adjusted): 1972 2010				
Included observations: 39 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.750665	0.348127	10.77383	0.0000
DTOTAL(-1)	-0.003546	0.000897	-3.953295	0.0003
R-squared	0.296959	Mean dependent var		3.637472
Adjusted R-squared	0.277958	S.D. dependent var		2.549856
S.E. of regression	2.166690	Akaike info criterion		4.434199
Sum squared resid	173.6981	Schwarz criterion		4.519509
Log likelihood	-84.46687	Hannan-Quinn criter.		4.464807
F-statistic	15.62854	Durbin-Watson stat		1.733656
Prob(F-statistic)	0.000334			

Table 6 shows that the 29% growth rate of Colombia's economy is explained by the changes in the total kidnappings by armed outlaw groups. Similarly, it is observed that to an increase in kidnapping, whether male or female, the growth rate of the economy is reduced by 0.003%, with a significance level of 99.9%. These results highlight the inverse relationship between the economy's growth and kidnapping in Colombia by illegal armed groups and even by common criminals. In this sense, gender does not weigh at all on economic growth.

Notwithstanding the above results, the estimation type of genre shows that the impact of male kidnapping on the economy's growth rate is greater than the impact of the abduction of females. Nontheless, this result is because male kidnappings are three times greater than female kidnappings (Table 7).

Table 7. National Estimates by Gender

Dependent Variable: GY				
Method: Least Squares				
Date: 09/18/14 Time: 11:42				
Sample: 1970 2010				
Included observations: 41				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.754899	0.473417	10.04378	0.0000
FEMALE	0.002716	0.003043	0.892573	0.3777
MALE	-0.002041	0.000800	-2.552492	0.0148
R-squared	0.264300	Mean dependent var		3.788975
Adjusted R-squared	0.225579	S.D. dependent var		2.576596
S.E. of regression	2.267435	Akaike info criterion		4.545531
Sum squared resid	195.3679	Schwarz criterion		4.670914
Log likelihood	-90.18338	Hannan-Quinn criter.		4.591188
F-statistic	6.825759	Durbin-Watson stat		1.612996
Prob(F-statistic)	0.002933			

Table 7 shows that an increase in male kidnappings reduces the economy's growth rate by 0.002%, with a significance level of 99%, while female kidnappings seem to have no significance and, in turn, the sign expected is positive. However, as seen in the estimates data panel and through the Granger causality test, the rate of female kidnappings negatively impacts Colombia's economy when it happens.

Conclusions

One of the first conclusions that can be drawn from this work is that the kidnapping in Colombia of men and women had a great increase after the 1970's decade until today for a total of kidnappings of 39,010, of which 78% were men and 28% were female gender.

Also, the growth rate of the economy and its relation to the abduction of men and women. Estimates through the fixed effects panel data show that there is a negative relationship between economic growth and kidnapping. In this respect,

an increase in male kidnapping rate by 1% leads to a decrease in the economy's growth rate by about 1.13%, while a 1% increase in female abduction leads to a decrease in the rate by 0.43%. Gender impact on the economy is different precisely because there are more male than female kidnappings.

On the other hand, based on the Granger causality test, the rate of economic growth is affected by the kidnapping phenomenon in Colombia, either men or women. In short, it is important to eradicate this scourge in Colombia not only because it is a blatant violation of international humanitarian law and human rights but because its impact on Colombia's economy is negative.

Finally, the production of both theoretical and empirical literature on the relationship between economic growth and conflict from a gender perspective is needed. Works on this front are not found in the literature.

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