

Determinants of gendered poverty differentials in Latin America: a dynamic panel and recursive local projections approach

Luis Eduardo Mella Gómez

lumella@hacienda.gov.do

Ministry of Finance and Economy

Research Article

Keywords: Poverty, Gender, Institutions, Institutional Volatility, Local projections

Posted Date: September 8th, 2026

DOI: <https://doi.org/10.21203/rs.3.rs-10712975/v1>

License: © ⓘ This work is licensed under a Creative Commons Attribution 4.0 International License.

[Read Full License](#)

Additional Declarations: No competing interests reported.

Determinants of gendered poverty differentials in Latin America: a dynamic panel and recursive local projections approach

Luis Eduardo Mella¹

Abstract

Previous research highlights the existence and determinants of gendered poverty differentials, especially in Latin America, yet considerably less is known about how macroeconomic, institutional, and labor-market shocks shape these differentials and whether their effects are homogeneous across countries. Also, the region is characterized by an institutional dynamic (institutional volatility) that differs from the standard models of institutional change and persistence that are more well suited for industrialized economies. By elaborating a country year panel data of 14 countries Latin America from 2001-2021. We employ dynamic panel regressions robust to dynamic panel bias and a recursive based shock identification local projection robust to cross-sectional dependence, Nickell Bias and slope heterogeneity. The reduced form estimates further indicates that aggregate economic development does not necessarily translates into narrower gendered poverty differentials. For instance, GDP per capita is positively associated with the feminization of poverty index but labor productivity measures such as GDP per worker reduced gendered poverty differentials at national, rural and urban levels. On the other hand, structural estimates show substantial cross-country and urban-rural heterogeneity in the transmission of institutional, fiscal and labor market shocks to gendered poverty differentials. Findings suggests that the distributional effects of aggregate shocks are strongly condition by country-specific institutional and socio-economic structures.

Keywords: Poverty, Gender, Institutions, Institutional Volatility, Local projections

JEL-codes: I32, J16, C23, E24, O54

¹ Ministry of Finance and Economy, Dominican Republic. Email: lumella@hacienda.gov.do

1. Introduction

Poverty continues to pose a significant challenge across Latin America, disproportionately affecting women and minority groups. The notion of the "feminization of poverty" has gained prominence, highlighting that women are more vulnerable to poverty than men, largely due to structural inequalities and gender-based discrimination. The body of literature addressing macro-level evidence on the feminization of poverty in the global south remains limited.

Among the possible causes is gender wage disparities and the unequal distribution of unpaid labor between men and women are commonly cited explanations. Additionally, several studies indicate that the arrival of a first child significantly reduces labor force participation among women in Latin America. For instance, there is evidence suggesting that this demographic shift leads to a noticeable decline in women's participation in the labor market. Furthermore, evidence on how institutional volatility and economic fluctuations uniquely affect gendered poverty experiences is sparse. Institutional volatility and economic instability are common characteristics in the region, with scholars noting their diverse impacts on economic performance and social outcomes (Levitsky & Murillo, 2005a, 2005b, 2010, 2012; Mella Gómez & Prestol Flaquer, 2023). This paper seeks to address these gaps in the literature by presenting comparative institutional, economic, and social evidence to elucidate the mechanisms underpinning the feminization of poverty. It specifically explores the critical determinants of this phenomenon in Latin America, concentrating on the influences of human capital, institutional factors, and economic as well as institutional volatility.

The article is organized as follows: the second section makes a literature review of several determinants of gendered poverty, like gender inequality, access to health and education, institutions and economic outcomes. The third section describes the data, methods and empirical strategy used, fourth section describes the results and lastly concluding remarks and recommendations for future research.

2. Literature review

2.1. Poverty and gender inequality

Recent research on the feminization of poverty in Latin America has highlighted several potential drivers. One important factor is the gendered division of labor, where women's labor is often concentrated in low-paid, insecure and informal sectors (Owusu-Afriyie & Nketiah-Amponsah, 2014; Schmink, 1977). This can be exacerbated by cultural norms and gender discrimination that limit women's economic opportunities and access to resources like education and assets (Bradshaw et al., 2019; Branisa et al., 2013; Paek et al., 2011; Pispira et al., 2022; Zimmermann, 2022).

The literature has documented the substantial negative impact of childbearing on women's participation in the labor force in Latin American countries (Berniell et al., 2020, 2021, 2022, 2023, 2024; Viollaz, 2023). Several studies have found that the arrival of a first child leads to a significant decline in women's labor market engagement, thereby exacerbating gender gaps in the region. For instance, Berniell and De la Mata provide evidence of this "child penalty" effect across Latin American countries, highlighting one of the key mechanisms underlying the widening gender disparities observed.

Also, other labor market issues such as monopsony power (Sharma, 2023; Stelzner & Bahn, 2022), incomplete labor markets have different gendered outcomes (Berniell et al., 2021; Loayza et al., 2009) that exacerbate poverty in women.

In addition, broader institutional and economic factors may also shape gendered poverty outcomes. Poverty and inequality are closely linked in Latin America, a region characterized by high levels of inequality and economic volatility (Gasparini et al., 2010). Studies have suggested that macroeconomic conditions and policy changes can have asymmetric impacts on women and men, with recessions and policy shocks often disproportionately harming women (Kugler, 2019).

2.2. Access to Health and Education

Access to health and education services are also important factors shaping poverty outcomes for women in Latin America. Evidence suggests that women often face barriers in accessing quality healthcare, due to factors like affordability, distance, and gender norms. Women's educational attainment has improved in the region, but

significant gaps remain, especially at higher levels of education (Cruz & Sierra, 2023; Evens et al., 2019; Lanham et al., 2019; Maternowska et al., 2010; Pan American Health Organization, 2011, 2022; University of Minnesota, 2023).

The literature has documented how lack of access to health and education services can limit women's human capital, economic opportunities, and overall wellbeing, all of which are critical for breaking poverty cycles (De Janvry & Sadoulet, 2000; Pearce, 1978; Polloni-Silva et al., 2021; Sikandar et al., 2021).

The role of labor market institutions and informality is also a key aspect in understanding the feminization of poverty in Latin America. Studies have found that labor market regulations, such as minimum wages and employment protection, can have gendered impacts, with women more likely to be employed in informal and precarious jobs that fall outside the reach of such policies. The high levels of informality prevalent in the region may disproportionately disadvantage women, limiting their access to social protection and formal employment opportunities.

2.3. Institutions

Institutions are the rules of the game that constraint and shape individual behavior and incentives (North, 1990). Formal institutions include legal and regulatory frameworks, while informal institutions are social norms, values, and cultural practices (Dryzek, 1996). Institutional quality and stability can have important implications for economic and social outcomes, including the gendered experience of poverty. Institutions shaped different social and economic outcomes such as economic growth (see Acemoglu 2010; Acemoglu et al. 2003, 2005, 2015, 2016, 2018; Acemoglu, Gallego, et al. 2014; Acemoglu, Robinson, et al 2014; Acemoglu & Dell 2010; Acemoglu & Robinson 2010; Acemoglu & Verdier 2000; Ferrant & Kolev 2016; Ogbuador et al. (2020); Samarasinghe 2019), inequality (Birdsall et al., 2013; Branisa et al., 2013; Cárdenas & Tuzemen, 2011; Chong & Gradstein, 2007; Dobson & Ramlogan-Dobson, 2010; Dutta & Mishra, 2005; Fehder et al., 2019; Gasparini & Lustig, 2011; Gupta et al., 2002; Mo, 2000), human development (Badgett et al., 2019; Branisa et al., 2013; Jakšić & Jakšić, 2018; Khosim, 2021; Odeh, 2010; Paldam & Gundlach, 2008; Próchniak, 2014).

2.3.1. Institutional Volatility

Finally, the region's history of economic and political instability is another crucial factor that may shape the feminization of poverty. Macroeconomic shocks (Pierri et al., 2023), policy changes, and institutional volatility (Brinks et al., 2019; Levitsky & Murillo, 2005a, 2010; Murillo et al., 2021) can have asymmetric effects on different groups, potentially exacerbating gender inequalities.

For instance, economic crises and periods of austerity may force households to adopt coping strategies that disproportionately burden women, such as reduced investment in girls' education or increased unpaid care work.

Similarly, changes in social policies and the welfare state can have gendered implications, with women often bearing the brunt of reduced access to public services and social protection. Examining how institutional and economic volatility intersects with gender dynamics is essential for understanding and addressing the feminization of poverty in Latin America.

3. Data and Methodology

To empirically investigate the determinants of the feminization of poverty in Latin America, this study will employ panel data techniques to assess how determinants impact the feminization of poverty in Latin America.

The key dependent variable will be a measure of the feminization of poverty, measured by the Femininity Index for poverty by different areas, which is the ratio of the incidence of poverty among women to the incidence of poverty among men. The way to estimate the indicator is:

$$P = \frac{\frac{wp_i}{wt_i}}{\frac{mp_i}{mt_i}} \times 100 = \frac{\% \text{ Poor women}_i}{\% \text{ Poor Men}_i} \quad (1)$$

Where: wp_i is the number of women in poor household aged 20-59 years old in area i , wt_i is the number of women in total households aged 20-59 years in area i , mp_i is the number of men in poor households aged 20-59 years old in area i , and mt_i is the number of men in total households aged from 20-59 years in area i .

The range of potential explanatory variables will include measures of:

1. Health and education access and outcomes (e.g., Adjusted Savings on education, Government Health Expenditure per capita PPP, fertility rates), taken from the World Bank's World Development Indicators (WDI).
2. Economic and labor market performance indicators: GDP Per capita and GDP per workers (as a proxy for labor productivity), Female Unemployment rate. Which are from the World Banks World Development Indicators and ILO Stat Database respectively.
3. Institutional and gender equality measures, such as Electoral Democracy Index from the Varieties of democracy as a proxy of political institutions. Gender Equality indicators from the Women Business and the Law version 1.0 database from the World Bank. We construct several gender equality institutions using Multiple Correspondence Analysis with the binary indicators.
4. Other macroeconomic indicators from the Global Macrodatabse such as GDP deflators (2015=100) are used (Müller et al., 2025).

The study will employ a panel data regression framework, with country and time fixed effects to account for unobserved heterogeneity.

$$Y_{it} = \sum_{k=0}^n Y_{it-k} + \alpha_i + \log(HC_{it}) + GEN_{it} + \log(EC_{it}) + \log(INST_{it}) + \eta_t + \varepsilon_{it} \quad (2)$$

Where Y_{it} is the dependent variable (the Feminization of poverty index at national, rural and urban areas) taken from the Economic Commission for Latin America (ELAC) database, Y_{it-k} is the lagged dependent variable, α_i is the unobserved heterogeneity, $\log(HC_{it})$ is a vector of variables that contain human capital indicators (adjusted savings on education (PPP) (2015=100) and General Government Health Expenditure per capita PPP² (2015=100)), GEN_{it} is a vector containing a variable that measures the formal gender equality in legal and economic dimensions from the Gender Equality database from World Bank, $\log(EC_{it})$ is a vector containing variables that controls for economic and labor market performance such as female unemployment rate, GDP per capita and GDP per worker, all in logs. $\log(INST_{it})$ is the electoral democracy index (or polyarchy index) from the Varieties of Democracy, η_t is a vector of temporal shocks and ε_{it} is the idiosyncratic error term.

The data consist of a panel data from 14 countries from 2001 to 2021, since some countries has missing values in the dependent variables, a linear interpolation technique was used, specially from Mexico and Chile who poverty statistics come from a biannual household microdata survey. To construct measures of adjusted savings with constant prices we used the annualized GDP deflator (2015=100) from the Global Macro Database (Müller et al., 2025) and PPP GDP conversion ratio from World Bank Database.

3.1. Multiple Correspondence Analysis

This study applies multiple correspondence analysis (MCA) to explore gender equality using a set of dichotomous indicators provided by the World Bank Gender Equality Database. These indicators reflect different aspects of legal, economic, and social dimensions of gender-related policies and rights and some of the will be used in the present study as explanatory or control variables.

Dimension 1 captures formal legal rights that enable women's independent economic and household decision-making: ability to own immovable property (gr7_27 prtyeqownmrdbth), spousal administrative authority over assets (gr7_30 prtylegadmin), lead a household (gr4_14 hhmrdr), register a business (gr6_24 regbusmrdr) and choose place of residence (gr1_4 whlivemrdr). The strong co-loadings indicate a coherent construct of legal/economic autonomy (property, business registration, household authority and personal residence rights).

On the other hand dimension 2 groups variables related to equal access to employment and workplace safeguards: ability to obtain jobs under the same conditions (gr2_5 profhmmrdr), laws prohibiting employment discrimination (gr2_6 nondiscempl), sexual-harassment legislation and remedies in employment (gr2_7 sexhrssemp, gr2_8 sexcomb), and permissions to work in hazardous or non-standard hours (gr3_11 jobshazard, gr3_10 nprgeqnight). Together these reflect inclusivity in labour markets and legal protection at work.

Dimension 3 focuses on civil-family rights and lifecycle equality: equal rights to remarry (gr4_17 equalremarr), ability to obtain a divorce judgment (gr4_16 dvrcjdgmnt), household leadership (gr4_14 hhmrdr) and parity in mandatory retirement age (gr8_34 mandagequal). This dimension reflects legal status within family law and rights tied to marriage, divorce and retirement.

² PPP conversion to GDP are also extracted from the WDI

Also, dimension 4 includes social-protection measures linking caregiving to pension/leave policy: accounting childcare periods in pension benefits (gr8_35 carecredit), equal ages for partial pension benefits (gr8_33 penagequal), and availability of paid maternity leave of at least 14 weeks (gr5_18 wpdleave14). These indicators capture how family-care policies and pension rules support women's long-term economic security..

Dimension 5 brings together personal/family autonomy and anti-discrimination measures: freedom to choose residence (gr1_4 whlivemrd), prohibitions on gender discrimination in access to credit (gr6_26 disgend), equal remuneration for work of equal value (gr3_9 eqremunval), equality in mandatory retirement rules (gr8_34 mandagequal) and domestic-violence/divorce protections (gr4_15 domleg; gr4_16 dvrcjdg~t). This mix highlights household autonomy, economic inclusion and protection against gendered harms.

Dimension 6 loads on protections against gendered harms and pregnancy/workplace safeguards: legislation on domestic violence (gr4_15 domleg), prohibitions on dismissal of pregnant workers (gr5_22 pregdism), and employment anti-discrimination provisions. This dimension captures the bundle of legal protections that safeguard women's status at work and within the household.

Lastly, dimension 7 reflects barriers and enablers for women's participation in formal economic activity: ability to register a business (gr6_24 regbusmrd), equal access to credit (gr6_26 disgend) and other measures of formal economic inclusion and entrepreneurship. This dimension highlights institutional facilitators of women's economic participation.")

Figure 1 shows the Eta² of every dimension with their respective Gender Equality indicator from Worldbank.

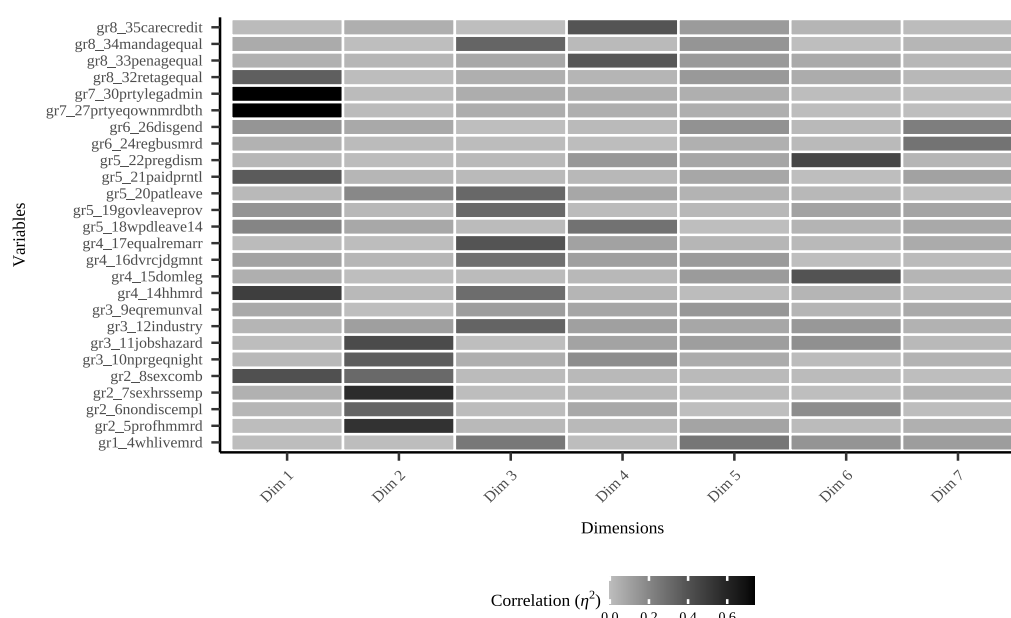


Fig 1. Heatplot of Gender Indicators and Dimensions extracted from the Multiple Correspondence Analysis.

4. Results

4.1. Descriptive results

Results in figure 2 shows a positive relationship between Femininity poverty index at national levels and General Government expenditures per capita (PPP) in logs. Although some values from Central America and the Caribbean shows a lower score in Equality in pensions and maternity leave legislation and are in the range between 110 to 130 women in poverty per every 100 men, it shows innovations in equality in pensions and maternal care rights are not driving the positive relationship, it means that other factors are driving the differentials.

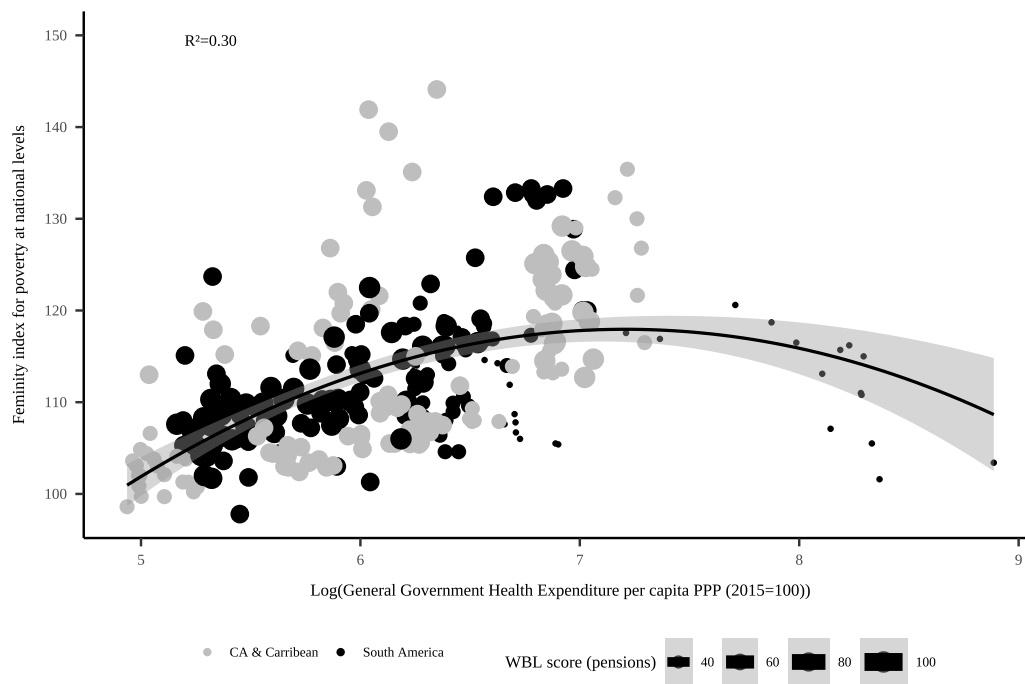


Fig 2. Scatterplot of Femininity index for poverty at national level by General Government Health Expenditure per capita weighted by Equality in pensions & maternity score from WBL ver. 1.0.

On the other hand, in figure 3 shows the relationship between femininity poverty index at national levels and the log of female unemployment weighted by the score of equality in pensions and maternity leave. The graph shows a significant heterogeneity between regions. If we split the heterogeneity by weighing by distribution of power by social groups index of the VDEM institute and using urban and rural Femininity poverty indexes, we see that partially a greater distribution of power could be driving the non-linear relationship, as well as idiosyncratic differences between rural and urban areas. This means that family, informal and formal political institutions could be (see figure 4) possible factors to consider. Data points from Central America & the Caribbean (gray) and South America (black) show some overlapping patterns, but Central America and Caribbean countries appear to have more concentrated and higher femininity index values, especially in the mid-range of female unemployment. Additionally, variations in the distribution of power among social groups (represented by different shades) indicate that social power dynamics may also contribute to differences in the femininity index across regions. Despite the overall quadratic trend, the dispersion of data points implies that regional and social factors introduce considerable variability in the observed patterns.

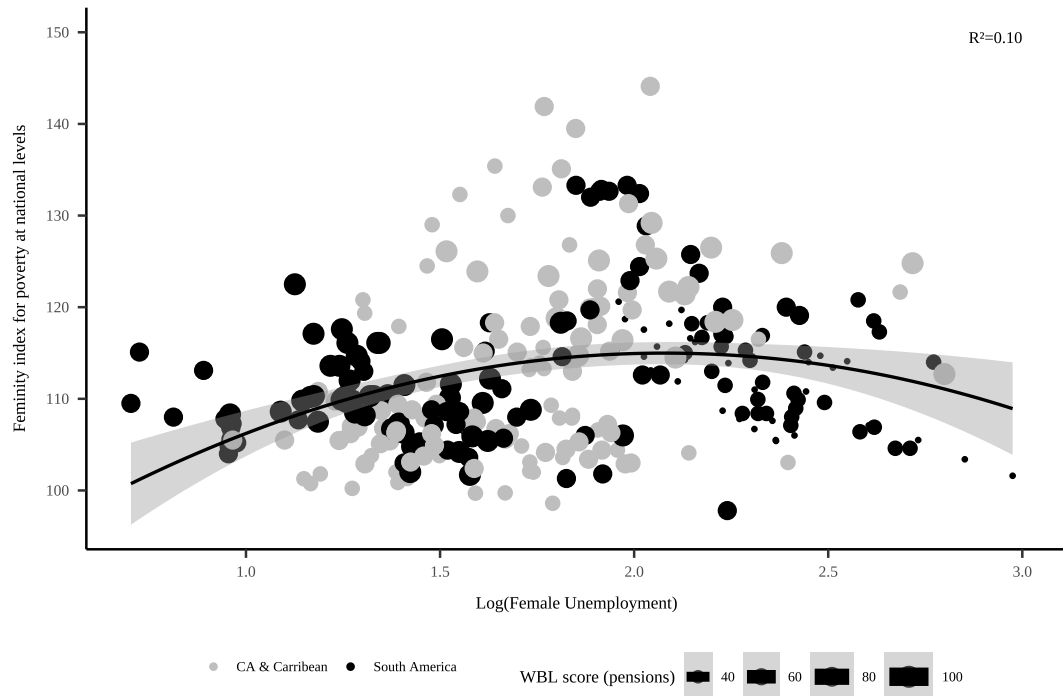


Fig 3. Scatterplot of Femininity index for poverty at national level by Female Unemployment rate weighted by Equality in pensions & maternity leave measure.

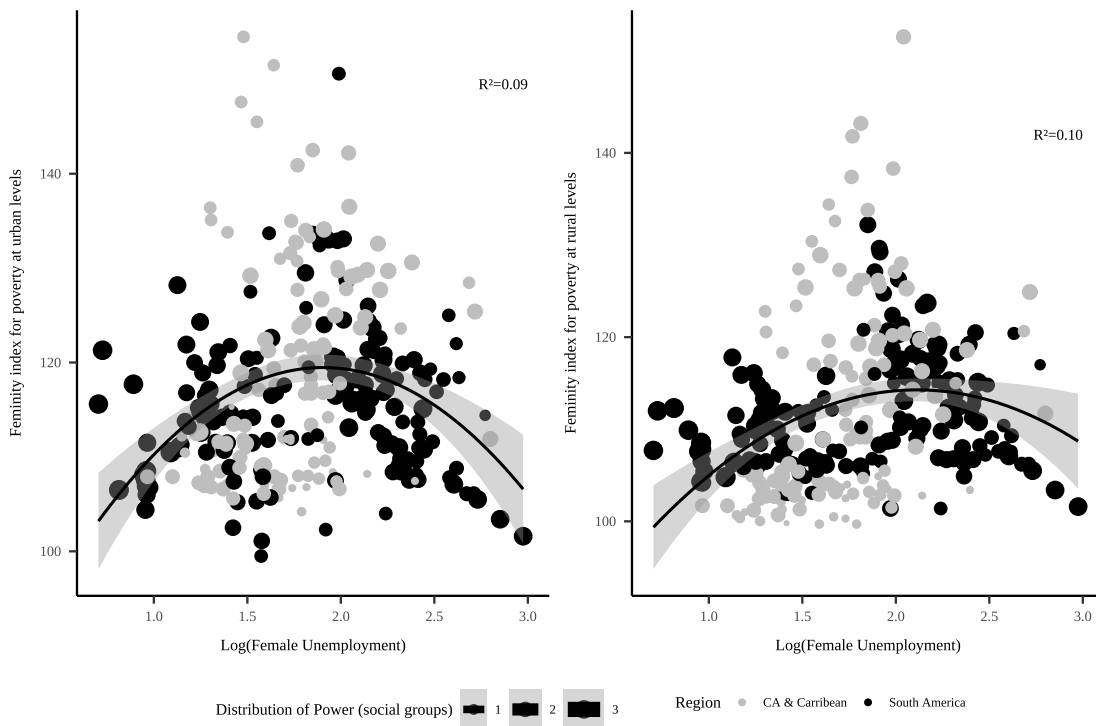


Fig 4. Scatterplot of Femininity index for poverty at urban and rural levels by Female Unemployment rate weighted by Distribution of power by social groups index.

On the other hand, in figure 5 Central American and Caribbean countries tend to have higher GDP per worker and femininity index values compared to their South American counterparts. The variation in marker sizes suggests

that higher educational savings per capita are associated with higher femininity index values, highlighting potential disparities in how economic growth translates into gendered poverty outcomes.

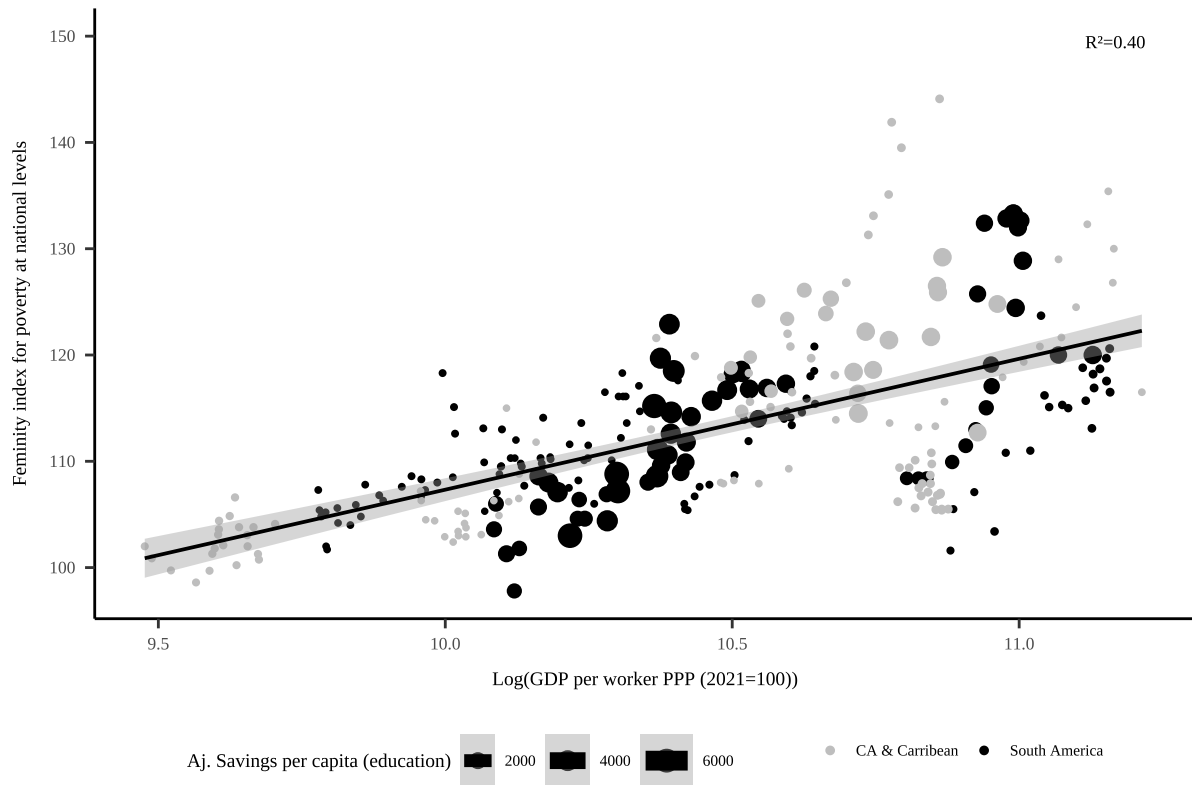


Fig 5. Scatterplot of Femininity index for poverty at national level by GDP per worker and weighted by Adjusted savings on education per capita PPP (2015=100).

Lastly figure 6 illustrates a weak positive relationship between adjusted savings on education per capita (log-transformed) and the femininity index for poverty at the national level, with an R^2 value of 0.09, indicating a low explanatory power. Data points represent countries in Central America & the Caribbean (gray) and South America (black), with marker sizes reflecting GDP per capita in purchasing power parity (PPP). Despite the positive trend, the low R^2 suggests that educational savings have a limited direct impact on reducing the femininity index of poverty. Regional heterogeneity is apparent, with South American countries displaying a wider range of values in both educational savings and femininity index levels compared to Central America & the Caribbean. The variation in GDP per capita suggests that economic factors may play a more significant role in shaping gendered poverty outcomes than education investment alone.

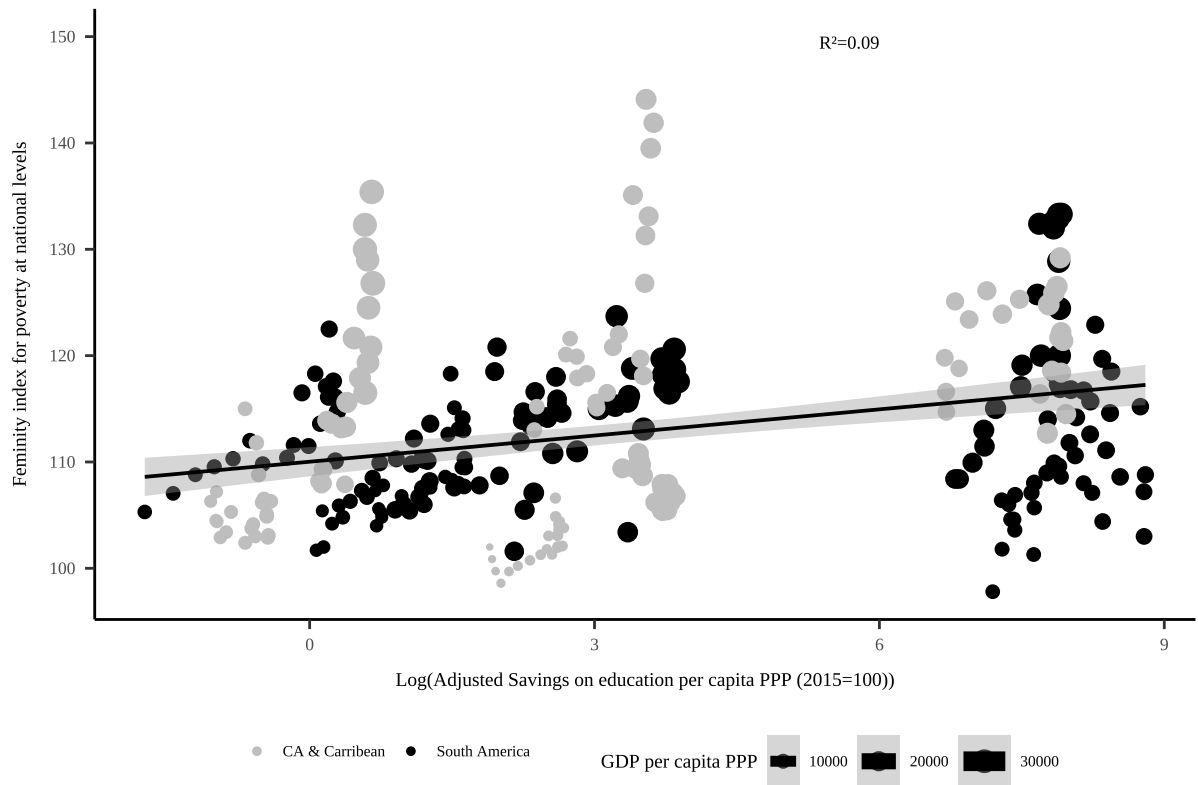


Fig 6. Scatterplot of Femininity index for poverty at national level by Adjusted savings on education per capita PPP (2015=100) and weighted by GDP per capita PPP (2021=100).

4.2. Econometric results

Before conducting any econometric modeling, we did previous diagnostics of panel stationary robust to cross-sectional dependence and other error structures problems commonly found in panel data. FPI at urban and rural areas, and the log of INST are stationary at levels according to the Pesaran CIPS* unit root test. Applying first differencing to the variables shows all the variables are stationary (see table 1 below).

Table 1. CIPS* stationarity tests.

	CIPS*	10%	5%	1%
FPI(n)	-1.99	-2.14	-2.25	-2.45
Δ FPI(n)	-4.09***	-2.14	-2.26	-2.47
FPI(ur)	-2.34***	-2.14	-2.25	-2.45
Δ FPI(ur)	-4.37***	-2.14	-2.26	-2.47
FPI(ru)	-2.52***	-2.14	-2.25	-2.45
Δ FPI(ru)	-4.91***	-2.14	-2.26	-2.47
DIM4	-1.72	-2.14	-2.25	-2.45
Δ DIM4	-4.42***	-2.14	-2.26	-2.47
LHEALTH	-1.69	-2.14	-2.25	-2.45
Δ LHEALTH	-4.11***	-2.14	-2.25	-2.45
UNEMFM	-2.14	-2.14	-2.25	-2.44
Δ UNEMFM	-5.12***	-2.14	-2.25	-2.45
LPIBpc	-1.84	-2.14	-2.25	-2.44
Δ LPIBpc	-3.93***	-2.14	-2.25	-2.44
LPIBw	-1.96	-2.14	-2.25	-2.44
Δ LPIBw	-4.44***	-2.14	-2.25	-2.45
LINST	-2.37***	-2.14	-2.25	-2.44
Δ LINST	-4.16***	-2.14	-2.25	-2.44

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

After that, we conduct a Pedroni test for cointegration (see table 2, below), considering slope heterogeneity since tests confirmed (see table 3) that there's evidence of slope heterogeneity. For all the specifications shows that there's evidence of cointegration.

Table 2. Panel cointegration results.

	Modified Phillips-Perron t	Phillips-Perron t	Augmented Dickey-Fuller t
FPI (N) (1)	3.3***	-7.14***	-7.19***
FPI (N) (2)	2.45**	-7.13***	-7.09***
FPI (N) (3)	2.55**	-6.57***	-6.58***
FPI (UR) (1)	3.29***	-7.98***	-7.9***
FPI (UR) (2)	2.37**	-8.48***	-7.92***
FPI (UR) (3)	2.39**	-7.38***	-7.54***
FPI (RU) (1)	3.29***	-9.44***	-10.8***
FPI (RU) (2)	2.41**	-8.54***	-10.2***
FPI (RU) (3)	2.58**	-7.49***	-8.16***

Note. For specification, 1 4 and 7 correspond to the full model with Femininity poverty index at national, urban and rural areas respectively. Specification 2, 5 and 8 refers to the model with the same order of dependent variables but without log Adjusted Savings in Education per capita PPP, the other cointegration tests are excluding the log (General Government Health Expenditure PPP in US Constant dollars (2015=100)). + p<.1, * p<.05, ** p<.01, *** p<.001

Table 3. Slope Heterogeneity tests.

	Delta Statistic	Delta p-value	Delta Adjusted Statistic	Delta Adjusted p-value
FPI (N) (1)	164.074	0.000	246.110	0.000
FPI (N) (2)	204.764	0.000	289.581	0.000
FPI (N) (3)	82.863	0.000	117.186	0.000
FPI (UR) (1)	240.604	0.000	360.906	0.000
FPI (UR) (2)	60.766	0.000	85.936	0.000
FPI (UR) (3)	138.877	0.000	196.402	0.000
FPI (RU) (1)	35.087	0.000	52.631	0.000
FPI (RU) (2)	160.901	0.000	227.548	0.000
FPI (RU) (3)	195.631	0.000	276.665	0.000

Note: Bandwidth for the kernel is 5. HAC standard errors are used and cross-sectional averages to control for unobserved common factors. Kernel= Quadratic Spectral.

Table 4 shows the regressions results from the femininity poverty index at national levels. After controlling for country fixed effects diminish the persistence of femininity of poverty compared to the random effects estimator on all specifications. Equality in pensions and maternity leave, Government Health expenditures, GDP per capita and electoral democracy (POLY) are statistically significant and have expected signs.

Table 4. Dynamic panel regressions results. Dependent variable: Femininity Poverty Index at national levels

	(1) FE-FPI(n)	(2) RE-FPI(n)	(3) FE-FPI(n)	(4) RE-FPI(n)	(5) FE-FPI(n)	(6) RE-FPI(n)
L.FPI(n)	0.55*** (0.06)	0.87*** (0.03)	0.54*** (0.06)	0.88*** (0.03)	0.56*** (0.06)	0.88*** (0.03)
DIM 4	-2.77 (1.54)	-0.82 (0.71)	-3.02 (1.45)	-0.63 (0.64)	-3.05* (1.39)	-0.63 (0.77)
Log(EDUC)	-0.39 (0.89)	0.05 (0.06)			-0.28 (0.97)	0.06 (0.06)
Log(GHE)	-1.24* (0.56)	-0.57 (0.41)	-1.23* (0.55)	-0.59 (0.40)		
Log(UNEMFM)	-1.46 (1.07)	0.34 (0.50)	-1.43 (1.06)	0.52 (0.49)	-1.69 (1.06)	0.08 (0.38)
Log(PIBpc)	34.78*** (8.87)	4.15* (1.76)	34.60*** (8.71)	4.29* (1.78)	28.72*** (6.45)	3.33 (1.60)
Log(PIBw)	-21.90* (7.90)	-1.51 (1.54)	-22.07* (7.88)	-1.68 (1.54)	-18.93* (7.11)	-1.48 (1.43)
Log(POLY)	-3.51 (1.90)	-1.59 (1.66)	-3.43 (1.87)	-1.47 (1.68)	-2.92 (2.10)	-1.40 (1.73)
N	280	280	280	280	280	280
Countries	14	14	14	14	14	14

Country FE.	Yes	No	Yes	No	Yes	No
Time FE	Yes	Yes	Yes	Yes	Yes	Yes

Standard Errors using Driscoll & Kray (1998) correction under parenthesis * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

On the other hand, table 5 shows the results of femininity poverty index at urban levels. In all specifications the log of electoral democracy index is statistically significant, meaning that in urban areas the quality of political institutions (in liberal, participatory and in deliberative sense) can help reduce poverty feminization by put women more in charge of public policy that helps reduces disparities. Also the log of GDP per capita is positive and statistically significant in all regression's specifications. GDP per worker shows an expected sign but none of the results are statistically significant.

Table 5. Dynamic panel regressions results. Dependent variable: Femininity poverty Index at urban levels.

	(1) FE-FPI(ur)	(2) RE-FPI(ur)	(3) FE-FPI(ur)	(4) RE-FPI(ur)	(5) FE-FPI(ur)	(6) RE-FPI(ur)
L.FPI(ur)	0.28** (0.08)	0.67** (0.03)	0.28*** (0.08)	0.71*** (0.03)	0.28*** (0.07)	0.67*** (0.03)
DIM 4	-6.62** (3.04)	-5.44*** (1.08)	-5.90** (2.32)	-3.92*** (1.17)	-6.79** (2.92)	-5.25*** (1.05)
LEDUC	1.13 (1.58)	0.29*** (0.10)			1.19 (1.58)	0.30*** (0.10)
Log(GHE)	-0.59 (0.57)	-0.56 (0.37)	-0.63 (0.51)	-0.71* (0.39)		
Log(UNEMFM)	-4.47** (1.92)	-0.92 (0.57)	-4.56** (1.81)	0.21 (0.64)	-4.60** (1.95)	-1.17** (0.54)
Log(PIBpc)	42.51*** (9.38)	8.63** (4.01)	43.13*** (9.07)	9.14** (4.26)	39.84*** (7.65)	7.82** (3.68)
Log(PIBw)	-27.40** (10.51)	-2.88 (3.48)	-26.95** (10.55)	-3.75 (3.81)	-26.12** (10.09)	-2.80 (3.32)
Log(POLY)	-5.47* (2.79)	-6.46*** (2.26)	-5.73** (2.53)	-5.31** (2.26)	-5.21* (2.76)	-6.25** (2.23)
N	280	280	280	280	280	280
Countries	14	14	14	14	14	14
Country FE.	Yes	No	Yes	No	Yes	No
Time FE	Yes	Yes	Yes	Yes	Yes	Yes

Standard Errors using Driscoll & Kray (1998) correction under parenthesis * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Lastly, table 6 shows the dynamic panel regressions from the femininity poverty index at rural levels. It shows that, compared to a random effects estimator that controls for time shocks, controlling for time and country unobserved heterogeneity reduce the persistence of the gap in poverty in women compared to men in rural areas. Adjusted savings on education per capita is shown to be significant in all specifications. The log of female unemployment shows a negative and statistically significant after controlling for time and country unobserved factors. A possible explanation of this result is that in rural areas there isn't developed labor markets that in rural areas and most of the welfare productions is carried by the families and informal structures of cooperation, so women unemployed can access the benefits of these informal cooperation structures.

On the other hand, Log of GDP per capita and log of GDP per worker are statistically significant and have a bigger effect on outcome. Higher income per capita means that more men exit out of poverty relative to women in rural areas but higher productivity and earnings from the labor market (measured by GDP per worker) reduce the gap after controlling for time and country idiosyncratic characteristics.

Table 6. Dynamic panel regressions results. Dependent variable: Femininity poverty index at rural levels.

	(1) FE-FPI(ru)	(2) RE-FPI(ru)	(3) FE-FPI(ru)	(4) RE-FPI(ru)	(5) FE-FPI(ru)	(6) RE-FPI(ru)
L.FPI(ru)	0.51*** (0.08)	0.89*** (0.05)	0.53*** (0.08)	0.92*** (0.04)	0.51*** (0.08)	0.89*** (0.05)
DIM 4	-0.48 (2.23)	-0.02 (0.96)	-1.33 (2.21)	-0.02 (0.95)	-0.41 (2.32)	-0.03 (1.00)
LEDUC	-1.50* (0.72)	-1.11** (0.45)			-1.64* (0.79)	-1.11** (0.49)
Log(GHE)	-0.37	0.02	-1.40	-0.73		

	(0.82)	(0.57)	(1.03)	(0.71)		
Log(UNEMFM)	-2.45*	0.67	-2.21	0.70*	-2.56**	0.68*
	(1.38)	(0.42)	(1.34)	(0.36)	(1.17)	(0.38)
Log(PIBpc)	36.79***	2.67	36.15***	2.15	35.95***	2.69
	(10.60)	(3.25)	(10.63)	(3.15)	(9.38)	(3.22)
Log(PIBw)	-23.09**	-0.44	-24.30**	-0.69	-22.62**	-0.44
	(8.59)	(2.21)	(9.00)	(2.35)	(7.96)	(2.21)
Log(POLY)	-4.43	-0.33	-4.32	-1.23	-4.27	-0.35
	(2.74)	(2.50)	(2.68)	(2.78)	(2.93)	(2.52)
<i>N</i>	240	240	240	240	240	240
Countries	12	12	12	12	12	12
Country FE.	Yes	No	Yes	No	Yes	No
Time FE	Yes	Yes	Yes	Yes	Yes	Yes
RMSE	3.084	3.534	3.104	3.560	3.077	3.526

Standard Errors using Driscoll & Kray (1998) correction under parenthesis * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

4.3. Robustness checks

4.3.1. Nickell bias

Under the presence of unobservable group characteristics or group-specific heterogeneity, dynamic panel data models (fixed effects and random effects alike) for lineal panel data models with lagged dependent variable suffer from bias when the time horizon is short (Nickell, 1981). Even though the time horizon is larger than the cross-sectional units in this research and Nickell bias diminishes as $T \rightarrow \infty$, those asymptotic properties are not guaranteed to show in finite samples. It means that to make estimates that are robust to dynamic panel bias we re-estimate the model accounting for it. For that we estimate a dynamic fixed effect correction made by Breitung et al. (2022). A main advantage is, as well as the one proposed by Everaert & Pozzi (2007) —which is a bootstrap based procedure—, is that it can deal with dynamic panel bias, has better finite sample properties and less standard deviation than the common approaches using GMM estimator (Arellano & Bond, 1991; Arellano & Bover, 1995; Blundell & Bond, 1998). The only difference is that our bias-corrected approach adopted is a method of moments estimator like the Dhaene & Jochmans (2016) adjusted profile likelihood estimator. Other bootstrap approaches based on bias-correction procedures like Kiviet have better finite sample properties than GMM estimators, but the bias-correction of the fixed effect estimator is derived under a strict set of assumptions (i.e homoscedasticity) (J. Kiviet et al., 2017; J. F. Kiviet, 1995). And since the analytical form of the bias is known, the Breitung, Kripfganz & Hayakawa estimator can compute standard errors that can be robust to cross-sectional dependence.

On table 7 we show the results of dynamic panel regressions with fixed effects (FE) and two-way fixed effects (TW). We show that even though there is difference in the persistence in the variables compared with the TWFE without accounting for Nickell bias, the results are qualitatively similar.

Table. 7. Bias corrected panel regression results.

	(1)	(2)	(3)	(4)	(5)	(6)
	TW-FPI(n)	FE-FPI(n)	TW-FPI(ur)	FE-FPI(ur)	TW-FPI(ru)	FE-FPI(ru)
L.FPI	0.63*** (0.09)	0.60*** (0.09)	0.36*** (0.11)	0.35** (0.12)	0.61*** (0.07)	0.63*** (0.09)
DIM 4	-2.15 (1.63)	-1.19 (1.72)	-5.93 (4.18)	-4.72 (3.53)	-0.27 (1.04)	-2.15 (1.63)
Log(EDUC)	-0.53 (0.59)	-1.49* (0.75)	0.96 (1.43)	-0.38 (0.80)	-1.86* (0.94)	-0.53 (0.59)
Log(GHE)	-1.15*** (0.35)	-0.85** (0.28)	-0.57 (0.81)	-0.32 (0.90)	-1.54*** (0.39)	-1.15*** (0.35)
Log(UNEMFM)	-1.13 (1.25)	-0.98 (1.00)	-3.91* (1.95)	-3.06 (1.83)	-1.67 (1.01)	-1.13 (1.25)
Log(PIBpc)	30.71** (10.36)	26.21*** (7.92)	38.69** (13.76)	34.18** (11.15)	34.91*** (9.54)	30.71** (10.36)
Log(PIBw)	-19.55* (9.27)	-16.04* (7.81)	-25.30 (13.52)	-20.48 (12.51)	-21.54** (6.57)	-19.55* (9.27)
Log(POLY)	-3.20 (1.81)	-2.14 (2.23)	-5.05 (3.41)	-4.32 (3.67)	-3.15 (2.01)	-3.20 (1.81)
Const	-37.43	-27.12	-24.70	-30.22	-46.63	-37.43

	(25.55)	(26.39)	(34.67)	(38.86)	(28.90)	(25.55)
<i>N</i>	280	280	280	280	280	280
Countries	14	14	14	14	14	14
Country FE.	Yes	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	No	Yes	No	Yes	Yes
A&B Test of order 1	-2.764	-2.565	-2.414	-2.414	-2.448	-2.764
A&B Test of order 2	0.832	0.807	1.479	1.517	1.294	0.832
pvalue (order 1)	0.006	0.010	0.016	0.016	0.014	0.006
pvalue (order 2)	0.405	0.420	0.139	0.129	0.196	0.405

Robust standard errors clustered at the country level * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

4.3.2. Potential endogeneity due to common factors and reverse causality

While the baseline analysis relies on reduced form regressions including a set of controls highlighted by the literature, the potentially simultaneous relationship among institutional conditions, institutional volatility, government expenditure, labor-market conditions and gendered poverty differentials make it difficult to assign a structural interpretation of the estimated coefficients. Therefore, the initial strategy is complemented with a system-based identification strategy that explicitly accounts for the contemporaneous relationship between the variables of interest. This approach imposes a recursive short-run structure like a structural VAR analysis while estimating the propagation of the identified shocks through mean-group local projections (Jordà, 2005).

The recursive ordering is given by:

$$INST_{it} \rightarrow VOL_{it} \rightarrow GOV_{it} \rightarrow LAB_{it} \rightarrow FPI_{it} \quad (4)$$

Here *INST* is the electoral democracy index, *VOL* is a proxy of downside institutional volatility³, *GOV* denotes the government expenditure per capita in real US dollars (2015=100), *LAB* is the female-to-male unemployment ratio, and *FPI* is the poverty feminization index, all variables are in logs (except for the *FPI*) and first differenced. Under this ordering, the institutional conditions are assumed to not respond contemporaneously in relation to the other variables. Institutional volatility may respond to contemporaneous institutional conditions but not to innovations in government expenditure, labor market conditions or gendered poverty differentials; labor market conditions may additionally respond to government expenditure per capita; and Feminization of Poverty Index is allowed to respond contemporaneously to all preceding variables. Operationally, these restrictions are imposed through a sequential Gram-Schmidt orthogonalization of the reduced-form innovations, which are equivalent to imposing a lower-triangular contemporaneous impact matrix under a recursive Cholesky identification.

A further concern is cross-sectional dependence. Considering that Latin American economies may be exposed to common institutional, macroeconomic and political shocks (Bértola & Ocampo, 2010; Bulmer-Thomas, 2017; Engerman & Sokoloff, 1994; Mazzuca, 2021; Mazzuca & Munck, 2020). If these shocks affect countries heterogeneously and are correlated with the regressors, ignoring the resulting interactive effects may bias the estimated impulse responses. To address this issue, the Norkuté et al. (2021) instrumental variable approach is implemented. This approach accommodates dynamic panel regressions with multifactor error structure and heterogenous factor loadings.

For each projection horizon (*h*), the empirical specification is:

$$Y_{it+h} = \alpha_{i,h} + \rho_{i,h}Y_{i,t-1} + \gamma_{i,h}\hat{\varepsilon}_{it} + x'_{i,h}\beta_{i,h} + \lambda'_{i,h}f_{t,h} + v_{i,t+h}, \quad h = 0, \dots, H = 4 \quad (4)$$

Where Y_{it+h} is the dependent variable, $\rho_{i,t-1}$ represents an autoregressive term, x' is a vector of observable exogenous variables for *i* countries and *t* periods at horizon *h*, $\hat{\varepsilon}$ represents the recursive identified structural shock, $\lambda'_{i,h}f_{t,h}$ represents the multifactor error structure with common factors $f_{t,h}$ and individual-specific factor loadings $\lambda'_{i,h}$, and v_{it} is the idiosyncratic error term.

Following Norkuté et al (2021), the estimation proceeds in two stages. First, principal components are used to remove the common factors from the covariates and their respective lags, generating defactored covariates that serves as instruments. Later, common factors are extracted from the first-stage residuals and used to defactored

³ The variable is constructed from the residuals of an autoregressive dynamic fixed-effects panel model estimated over 1990–2021 and robust to Nickell bias and cross-sectional dependence. To capture downside institutional innovations, positive residuals are set to zero. Institutional volatility is then measured as the five-year rolling standard deviation of these negative innovations, computed over the preceding five years ((*t*-5) to (*t*-1)). Then the variable is standardized. For more information see appendix.

the entire model, after which the IV regression is re-estimated using the same instruments (see Kripfganz & Sarafidis (2021) and Norkutė et al. (2021) for more details). This strategy is also robust for recent developments in the panel local projections regarding Nickell bias (Mei et al., 2026; Ugarte-Ruiz, 2026). The instruments set is specified as the first lag of INST, VOL, GOV and LAB. Thus, two additional lags of the defactored instruments are included. At each horizon, the Hansen J test fails to reject the restrictions, providing no evidence against the validity of the instrument set.

Figure 7 presents the local projection estimates of the response of the annual change in the Feminization of Poverty Index (FPI) at the national level to the identified structural shocks. An institutional volatility shock has no discernible contemporaneous effect on the FPI. However, the dynamic response becomes negative in the second year, indicating a temporary decline in the FPI following the shock, although the effect subsequently dissipates. In contrast, a shock to real government expenditure per capita does not produce a clear or persistent response in the FPI over the projection horizon. Finally, a shock to the female-to-male unemployment gap has a positive contemporaneous effect on the FPI at the national level. The response remains positive in the first year following the shock but subsequently dissipates, suggesting that the effect is transitory rather than persistent.

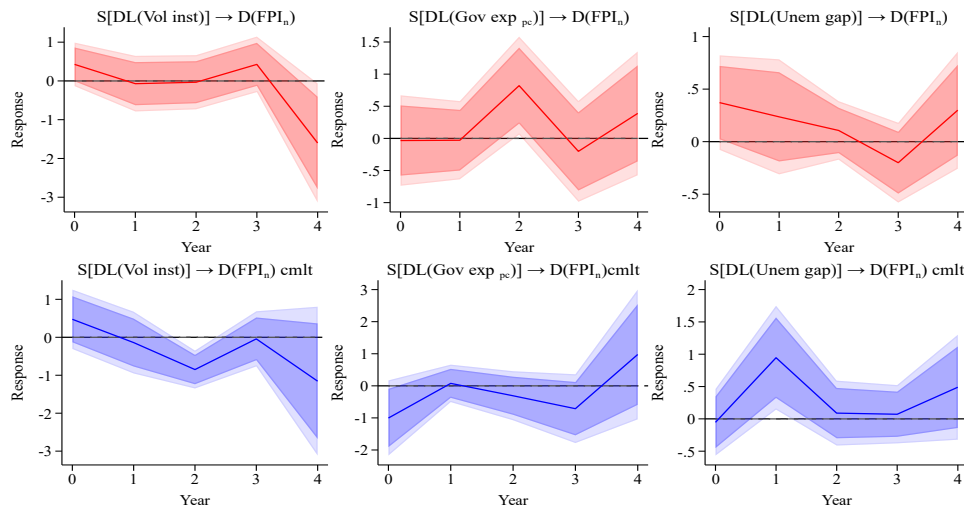


Fig 7. Impulse-response functions via Local projections. Note: Robust standard errors at 65% and 80 % confidence interval.

On the other hand, figure 8 shows that a shock of institutional volatility has a contemporaneous effect that is statistically indistinguishable from zero. However, its cumulative effect is negative and statistically significant during the first two years, before becoming statistically indistinguishable from zero from the third year onward. A shock of real government expenditure per capita has an almost negligible effect on gendered poverty differentials in urban areas. Finally, an unexpected increase in the female-to-male unemployment ratio raises the feminization of poverty index (FPI) at the urban level during the first year in cumulative terms, although the effect is transitory.

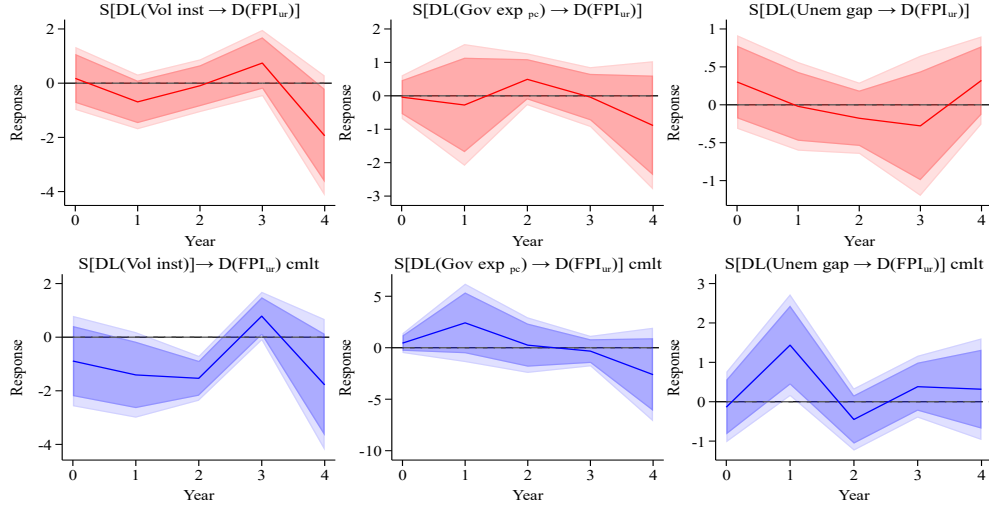


Fig 8. Impulse-response functions via Local projections. Note: Robust standard errors at 65% and 80 % confidence interval.

Figure 9 shows the impulse responses of the feminization of poverty index (FPI) at the rural level. A negative shock to institutional volatility has no statistically distinguishable effect, only at the third year (cumulative). In contrast, a shock to government expenditure per capita temporarily increases rural FPI in the second year, although the effect dissipates by the third year and by finally increasing the FPI at year four. Finally, a shock to the female-to-male unemployment ratio has an incremental contemporaneous effect on rural FPI. In cumulative terms, this effect persists through the second year before gradually converging toward zero thereafter.

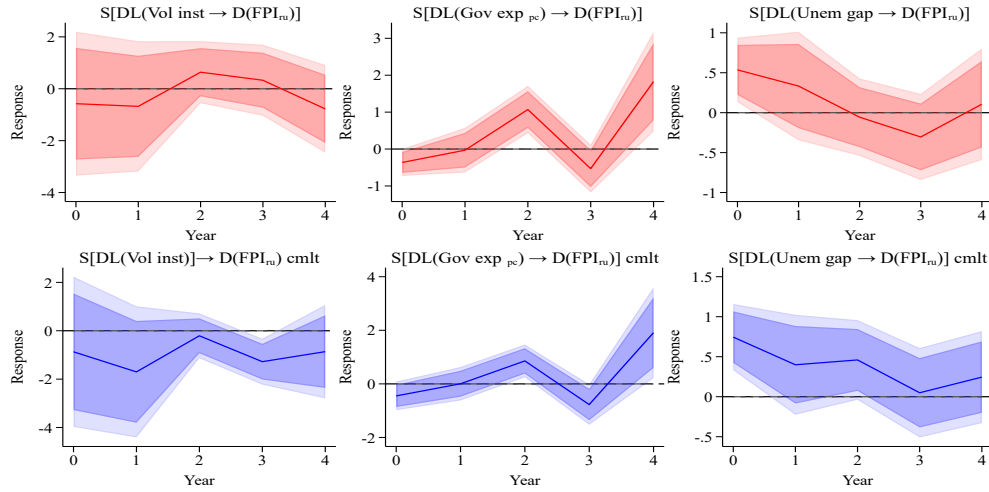


Fig 9. Impulse-response functions via Local projections. Note: Robust standard errors at 65% and 80 % confidence interval.

4.3.3. Modeling the country specific heterogeneity responses

By using the mean group estimator, it means that we can compute country-specific impulse responses. The figure 10 shows the effect of an institutional volatility shock on the feminization of poverty index at national levels. The negative contemporaneous effect in Argentina, Brazil, Chile and Costa Rica is particularly noteworthy because the institutional volatility. These results suggest that an unexpected increased in volatility of adverse institutional innovations does not uniformly translate into widening of gender poverty disparities. Instead, short run responses depend on country-specific and institutional conditions. Those after mentioned countries exhibits greater stability in their democratic institutions in the sample period. This raises the possibility that the transmission of adverse institutional volatility may be state-dependent.

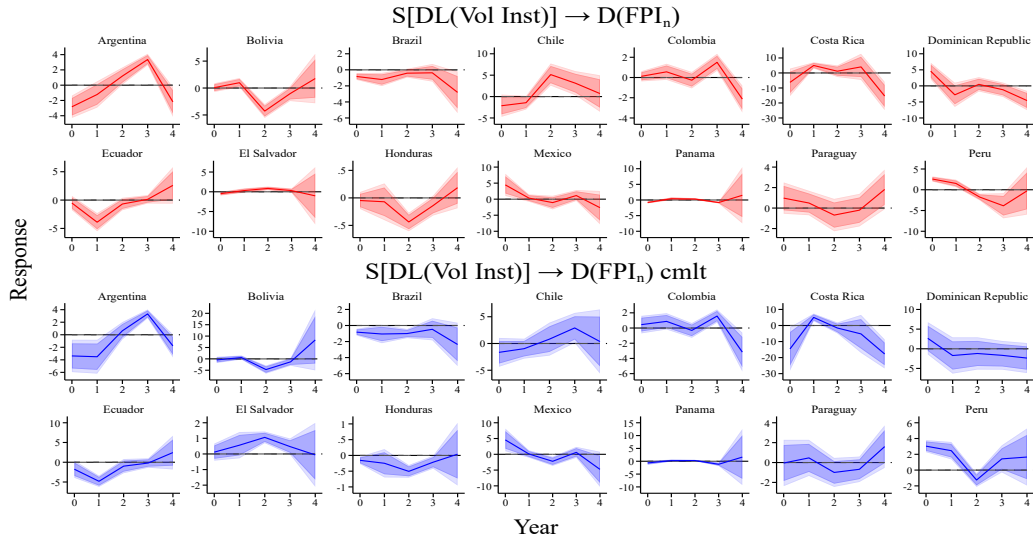


Fig 10. Impulse-response functions via Local projections by country. Note: Robust standard errors at 65% and 80 % confidence level.

In the figure 11 shows the impulse-response of an unexpected shock of Government expenditure per capita in the feminization of poverty by countries. The results show substantial heterogeneity in both signs and persistence. Differences between formal gender equality (measured by the Women's business and the law score of WB, now WBL score) and effective distribution of power (VDEM) provides context for this heterogeneity. For instance, Paraguay combines the highest average WBL score in the sample (93 between 2011-2021) with comparatively low gender and social power-distribution score (1.4 and 1.6, respectively), while the Dominican Republic and El Salvador show similar combination of relatively favorable legal frameworks with limited effective power distribution. These countries exhibit positive short-run feminization of poverty index responses to fiscal shocks. On the other hand, Costa Rica, (WBL mean score for 2011-2021= 80 and a 3.0 score in the gender distribution of power index of VDEM), Bolivia (distribution of power by social groups= 3.1), shows short-run declines in FPI. Although this pattern is not universal, it suggests that formal legal equality alone may be insufficient for fiscal expansions to reduced gendered poverty differentials.

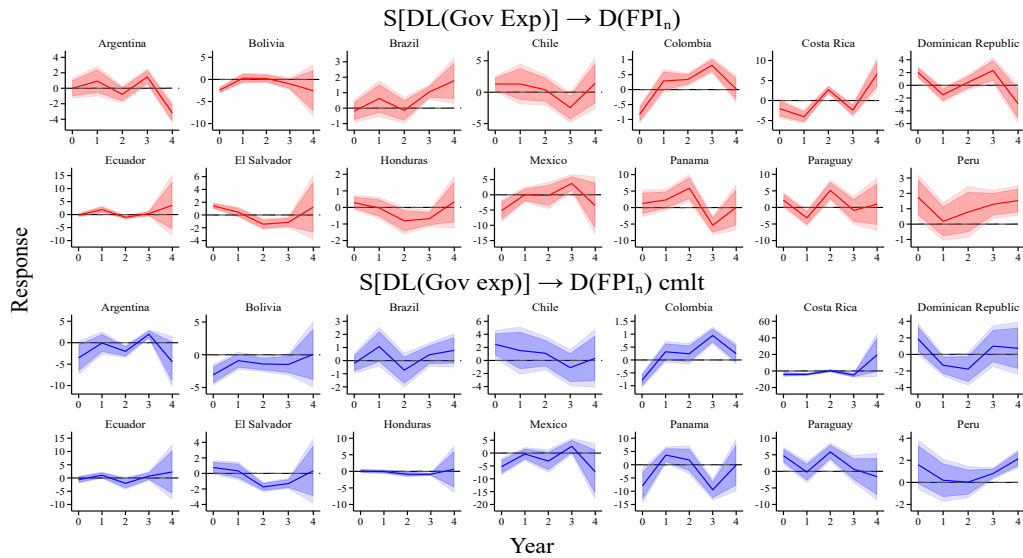


Fig 11. Impulse-response functions via Local projections by country. Note: Robust standard errors at 65% and 80 % confidence level.

Figure 12 shows the impulse-response function to shocks in the male-to-female unemployment ratio. Shocks reveal substantial heterogeneity as well in both sign and timing. Argentina, Brazil and Colombia display positive short run FPI at national levels, specially at the first year while El Salvador, Bolivia and Chile exhibit negative responses at selected horizons. The results suggests that changes in relative unemployment do not transfer

mechanically into gendered poverty differentials. The transmission could depend on labor market characteristics, such as informality, wage disparities, labor force participation, household income-sharing mechanism and depth and coverage of social protection institutions.

Differences in formal labor-market protections may also help contextualize this heterogeneity: the relevant Women Business and the Law sub-indices —particularly workplace, pay, parenthood and pension provisions— vary considerably across countries. Even so, the responses do not reveal a simple monotonic relationship between stronger legal protections and lower FPI responses. Sign reversals are frequent in the sample across the horizons; this could indicate that short-run effects of labor market shocks could differ from their medium-run distributional consequences.

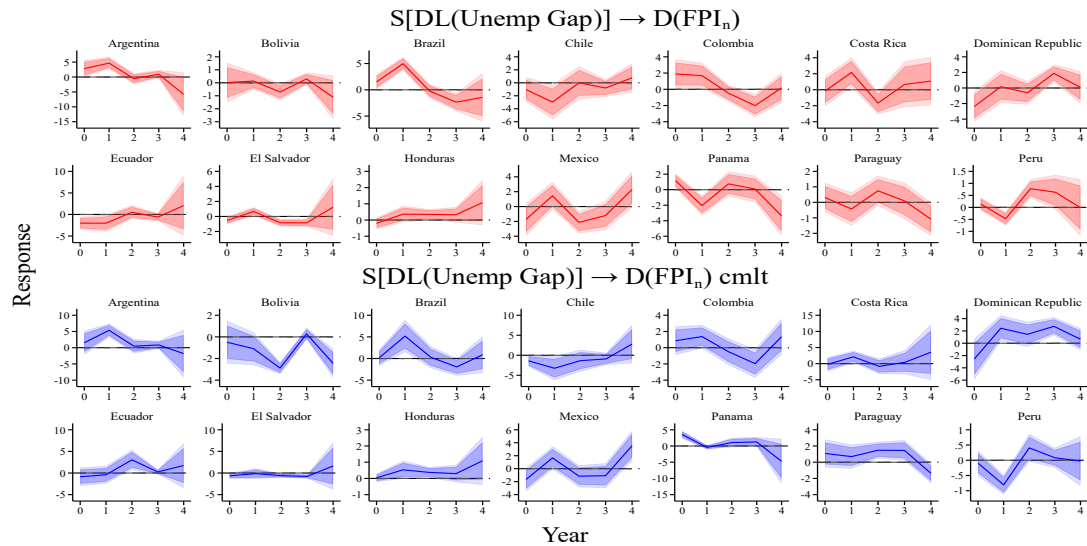


Fig 12. Impulse-response functions via Local projections by country. Note: Robust standard errors at 65% and 80 % confidence interval.

The urban responses of a shock of institutional volatility reinforces the substantial cross-country heterogeneity observed at the national levels (figure 13). Brazil, Chile, Costa Rica and Panama⁴ exhibit negative short-run responses of the urban FPI to downside institutional volatility shocks. Although, there's differences in persistence and the dynamic differs substantially across countries. For instance, the Dominican Republic, Mexico and Peru display positive initial responses. This could suggest that the transmission of adverse institutional instability may depend partly on country-specific labor market structures and social protection mechanisms.

⁴ Argentina is excluded from this national-urban-rural interpretation because its FPI series does not differ across the territorial classifications employed in the data.

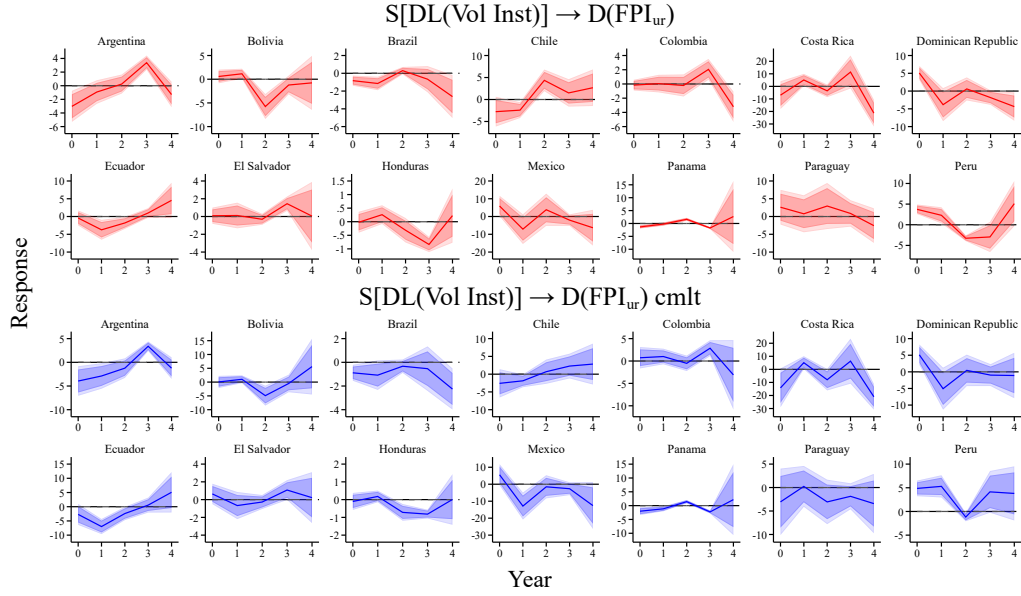


Fig 13. Impulse-response functions via Local projections by country. Note: Robust standard errors at 65% and 80 % confidence interval.

Figure 14 shows the estimated impulse-response by country to a shock of government expenditure per capita in real terms and gendered poverty differentials at the urban level. The results reinforce the substantial heterogeneity in the gendered transmission of fiscal shocks. Bolivia, Colombia and Costa Rica show contemporaneous negative FPI responses while Chile, the Dominican Republic, Paraguay and Peru display contemporaneous increases. These differences are consistent with the importance of pre-existent institutional conditions. Costa Rica, for instance, combines the highest gender power-distribution in the sample with negative FPI urban responses while Paraguay exhibits the highest WBL mean score with low gender and social power distribution, shows a positive response. This result suggests that legal equality is not driving the results but rather effective gender and social power, gender roles, labor market structures and the composition of expenditure may condition this transmission of fiscal policy in urban contexts.

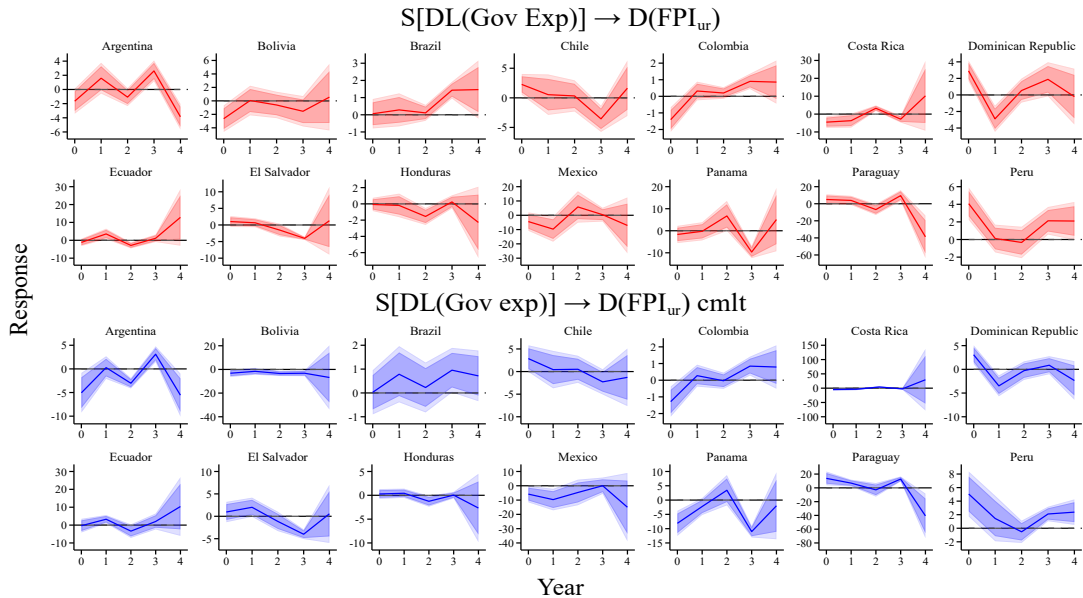


Fig 14. Impulse-response functions via Local projections by country. Note: Robust standard errors at 65% and 80 % confidence interval.

The country-specific FPI urban responses to shocks in the male-to-female unemployment ratio (figure 15) reveals considerable heterogeneity. Brazil and Colombia show positive short-run FPI at urban levels while Bolivia, Chile,

Ecuador and El Salvador display negative short-run responses at early selected horizons. Countries like the Dominican Republic, Panama and Peru shows significantly sign reversals over the last years over the projection horizon. The urban results highlight further the distinction between de jure labor market equality and its effective distributional transmission. For instance, Brazil provides strong average WBL scores in workplace, pay and parenthood with positive short-run FPI responses, while Ecuador, with similar high workplace, pay and pension score, exhibit negative responses at early horizons. It could mean that formal labor-market protections by itself is insufficient to account for the observed heterogeneity, suggestion an important role for differences in enforcement, informality, female labor force participation, household composition and access to social protection.

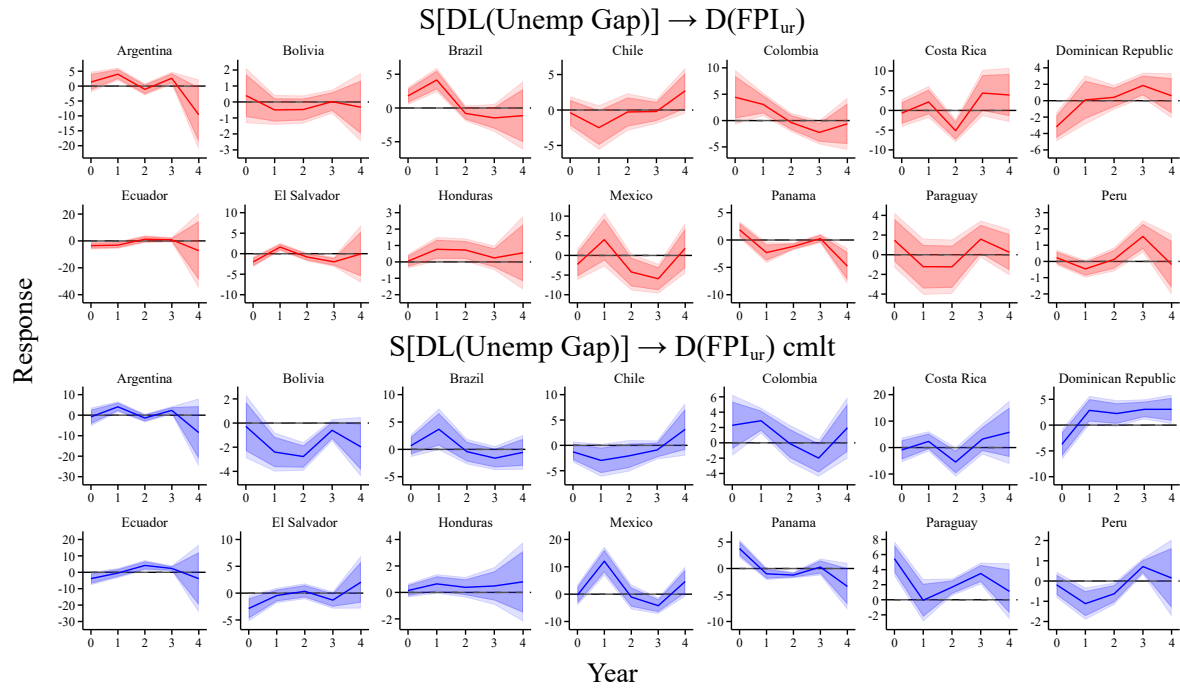


Fig 15. Impulse-response functions via Local projections by country. Note: Robust standard errors at 65% and 80 % confidence interval.

Figure 16 shows the rural FPI responses to adverse institutional volatility shocks. The figure shows substantial heterogeneity. Countries like Mexico, Paraguay, and Peru (and to a lesser extent, Colombia) shows positive contemporaneous short-run responses but with sign reversals in the medium run. These could suggest that the distributional transmission of adverse institutional instability in rural areas is strongly condition but country specific rural structures.

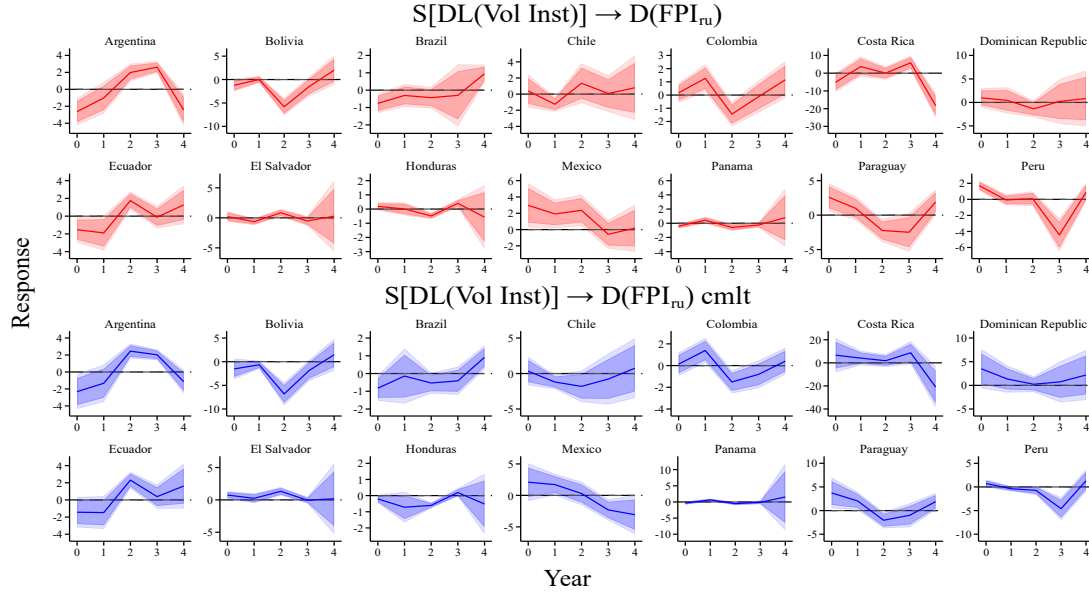


Fig 16. Impulse-response functions via Local projections by country. Note: Robust standard errors at 65% and 80 % confidence interval.

Figure 17 shows the impulse-response by country to a shock of government expenditure per capita to FPI at rural levels. Costa Rica and Honduras exhibit reductions at selected horizons, whereas Chile and Peru display positive medium-run responses. Several countries, including Bolivia, Ecuador, El Salvador, and Panama, show pronounced sign reversals over the projection horizon. These results reinforce the finding that higher government expenditure does not traduce mechanically into lower gendered poverty differentials. In rural areas, its distributional incidence is likely to depend not only on existing gender-related institutional frameworks, but the composition and territorial reach of public expenditure play an important role as well as rural labor market structures, access to social protection, and existing gender disparities in access to productive assets and employment opportunities.

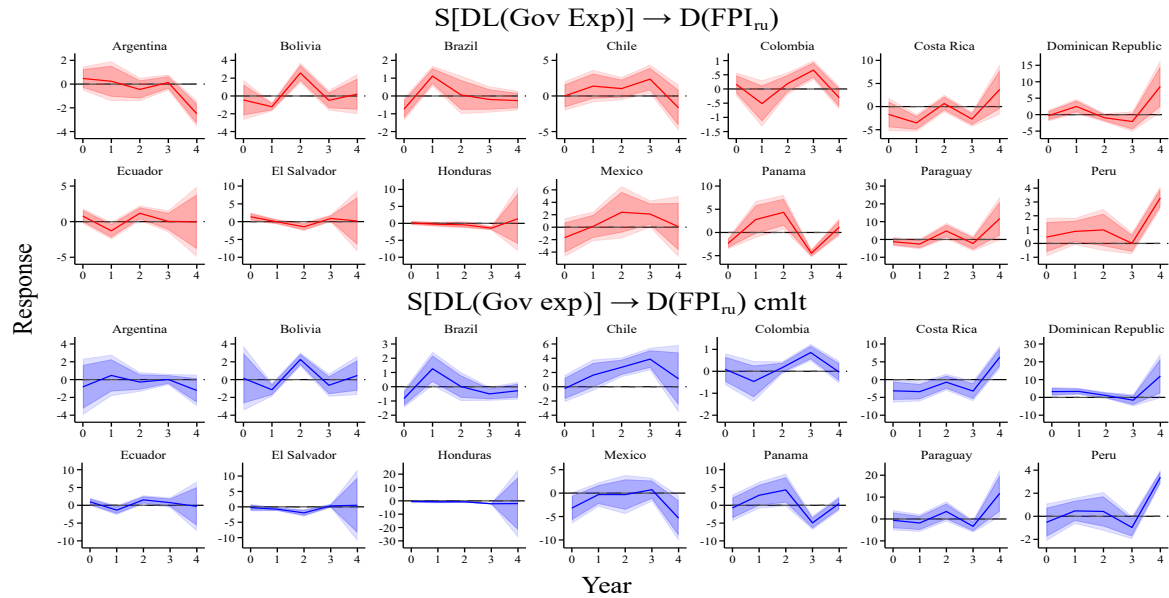


Fig 17. Impulse-response functions via Local projections by country. Note: Robust standard errors at 65% and 80 % confidence interval.

The rural responses to shocks in the male-to-female unemployment ratio (figure 18) shows substantial heterogeneity and frequent signs reversals as well. Countries like Brazil and Panama exhibit contemporaneous positive short-run responses and positive results persist until the second year (in Panama case there's a sign

reversal in the first year but then reverse to positive in year two). Colombia, Ecuador, Paraguay and Peru display pronounced reversals over the projection horizon, suggesting that unexpected relative changes in unemployment does not translate into persistent changes in gendered poverty differentials in rural areas.

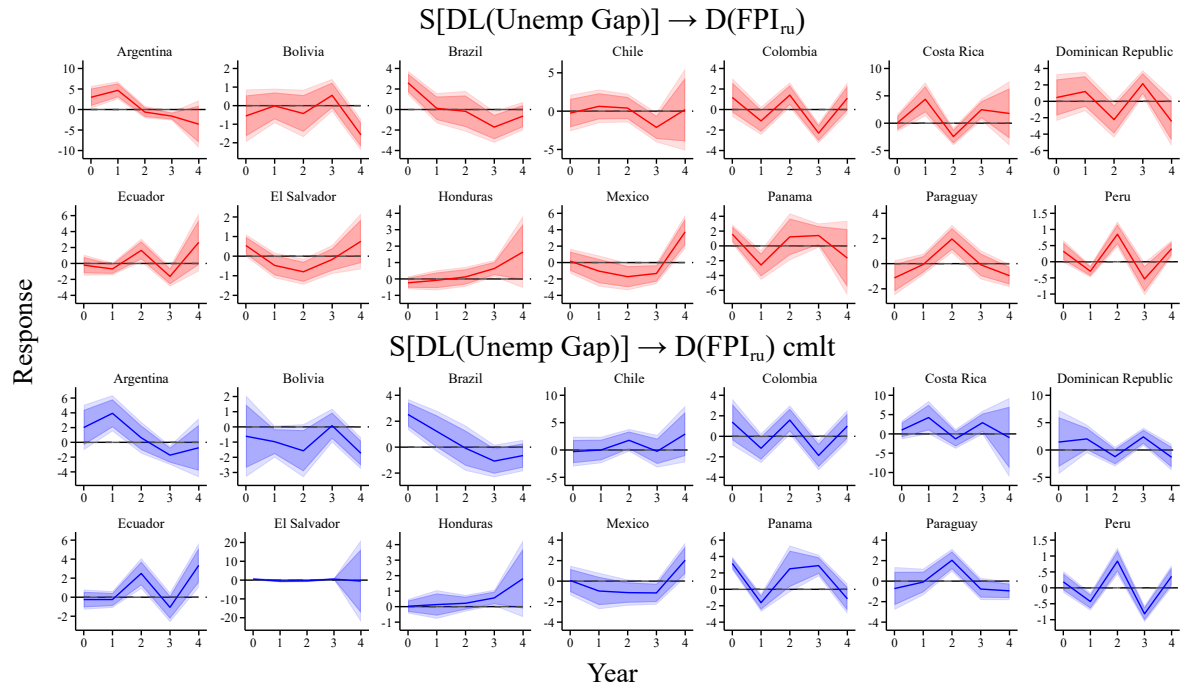


Fig 18. Impulse-response functions via Local projections by country. Note: Robust standard errors at 65% and 80 % confidence interval.

5. Concluding remarks

Over the last two decades, poverty has been declining rapidly in the region since market-oriented reforms, waves of democratization and less political instability and other external and internal factors that contributed to that decline. But at the same time, gendered poverty differentials in the region persists. First, gendered poverty differentials display considerable persistence, particularly at the national and rural levels, indicating that they reflect structural processes rather than transitory fluctuations. Second, reduced form estimated shows that aggregate economic expansion is a necessary but not a sufficient condition to narrow these gendered differentials. For instance, GDP per capita is positively associated with FPI across specifications while GDP per worker is consistently negative and statistically significant in the national and rural models. This suggests that the way economic growth is translated into productive employment may matter more for gendered poverty than aggregate income growth itself. Third, public health expenditure emerges as one of the most robust policy-related correlated of lower feminization of poverty at the national level, with additional evidence in rural areas when common time shocks are controlled for. This result is consistent with the literature that shows that the possibility of publicly provided health services reduces gender specific vulnerabilities that are associated with out-of-pocket health expenditures, care responsibilities and labor market interruptions. And lastly, the local projection shows evidence that institutional, fiscal and labor market shocks generate highly heterogeneous responses across countries and between urban and rural levels. This indicates that the effects of aggregate shocks are strongly state dependent: conditioned by pre-existing institutional, labor market and social structures.

Summing up, the results suggest that reducing feminization of poverty requires more than aggregate economic growth or higher public spending; it depends on whether economic and institutional changes are transmitted through channels that determine effective access to productive employment, social protection and public services for women.

Data availability

The data that support the findings of this study are:

- World Bank's World Development Indicators (WDI). Available at <https://databank.worldbank.org/source/world-development-indicators>

- The Global Macro Data (GMD) database (downloaded from the globalmacrodata R package). Available at <https://globalmacrodata.com>
- ECLAC (United Nations Economic Commission for Latin America and the Caribbean) (data/raw/export.xlsx). The data is available at <https://statistics.cepal.org/portal/cepalstat/index.html?lang=en>
- World Bank's Women, Business and the Law (WBL) database version 1.0. Downloaded at <https://wbl.worldbank.org/en/data/download-data>

Funding Authors declare no funding.

Compliance with ethical standards

Conflict of interest The author declare no competing interests.

References

- Acemoglu, D. (2010). Challenges for Social Sciences: Institutions and Economic Development. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.1888510>
- Acemoglu, D., Akcigit, U., Alp, H., Bloom, N., & Kerr, W. (2018). Innovation, Reallocation, and Growth. *American Economic Review*, 108(11), 3450–3491. <https://doi.org/10.1257/aer.20130470>
- Acemoglu, D., & Dell, M. (2010). Productivity Differences Between and Within Countries. *American Economic Journal: Macroeconomics*, 2(1), 169–188. <https://doi.org/10.1257/mac.2.1.169>
- Acemoglu, D., Gallego, F. A., & Robinson, J. A. (2014). Institutions, human capital, and development. *Annual Review of Economics*, 6, 875–912.
- Acemoglu, D., García-Jimeno, C., & Robinson, J. A. (2015). State Capacity and Economic Development: A Network Approach. *American Economic Review*, 105(8), 2364–2409. <https://doi.org/10.1257/aer.20140044>
- Acemoglu, D., Johnson, S., & Robinson, J. A. (2005). Chapter 6 Institutions as a Fundamental Cause of Long-Run Growth (pp. 385–472). [https://doi.org/10.1016/S1574-0684\(05\)01006-3](https://doi.org/10.1016/S1574-0684(05)01006-3)
- Acemoglu, D., Johnson, S., Robinson, J., & Thaicharoen, Y. (2003). Institutional causes, macroeconomic symptoms: volatility, crises and growth. *Journal of Monetary Economics*, 50(1), 49–123. [https://doi.org/10.1016/S0304-3932\(02\)00208-8](https://doi.org/10.1016/S0304-3932(02)00208-8)
- Acemoglu, D., Moscona, J., & Robinson, J. A. (2016). State Capacity and American Technology: Evidence from the Nineteenth Century. *American Economic Review*, 106(5), 61–67. <https://doi.org/10.1257/aer.p20161071>
- Acemoglu, D., & Robinson, J. (2010). The Role of Institutions in Growth and Development. *Review of Economics and Institutions*, 1(2). <https://doi.org/10.5202/rei.v1i2.14>
- Acemoglu, D., Robinson, J., & Gallego, F. (2014). Institutions, Human Capital, and Development. *Annual Reviews*, 6(1), 875–912. <https://doi.org/10.1146/annurev-economics-080213-041119>
- Acemoglu, D., & Verdier, T. (2000). The choice between market failures and corruption. *American Economic Review*, 90(1), 194–211. <https://doi.org/10.1257/aer.90.1.194>
- Arellano, M., & Bond, S. (1991). Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations. *The Review of Economic Studies*, 58(2), 277–297. <https://doi.org/10.2307/2297968>
- Arellano, M., & Bover, O. (1995). Another look at the instrumental variable estimation of error-components models. *Journal of Econometrics*, 68(1), 29–51. [https://doi.org/10.1016/0304-4076\(94\)01642-D](https://doi.org/10.1016/0304-4076(94)01642-D)
- Badgett, M. V. L., Waaldijk, K., & van der Meulen Rodgers, Y. (2019). The relationship between LGBT inclusion and economic development: Macro-level evidence. *World Development*, 120, 1–14. <https://doi.org/10.1016/j.worlddev.2019.03.011>
- Berniell, I., Berniell, L., de la Mata, D., Edo, maria, Fawaz, Y., Machado, M. P., & Marchionni, M. (2022). Motherhood and the Allocation of Talent. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.4063488>
- Berniell, I., Berniell, L., de la Mata, D., Edo, M., & Marchionni, M. (2023). Motherhood and flexible jobs: Evidence from Latin American countries. *World Development*, 167, 106225. <https://doi.org/10.1016/j.worlddev.2023.106225>

- Berniell, I., Berniell, L., Mata, D. de la, Edo, M., & Marchionni, M. (2021). Gender gaps in labor informality: The motherhood effect. *Journal of Development Economics*, 150, 102599. <https://doi.org/10.1016/j.jdeveco.2020.102599>
- Berniell, I., de la Mata, D., & Machado, M. P. (2020). The Impact of a Permanent Income Shock on the Situation of Women in the Household: The Case of a Pension Reform in Argentina. *Economic Development and Cultural Change*, 68(4), 1295–1343. <https://doi.org/10.1086/702792>
- Berniell, I., Fernández, R., & Krutikova, S. (2024). *Gender Inequality in Latin America and the Caribbean*. <https://doi.org/10.3386/w32104>
- Bértola, L., & Ocampo, J. A. (2010). Una historia económica de América Latina desde la independencia. Desarrollo, vaivenes y desigualdad. *España: SEGIB*.
- Birdsall, N., Lustig, N., & McLeod, D. (2013). Declining inequality in Latin America: some economics, some politics. In *Routledge handbook of Latin American politics* (pp. 158–180). Routledge.
- Blundell, R., & Bond, S. (1998). Initial conditions and moment restrictions in dynamic panel data models. *Journal of Econometrics*, 87(1), 115–143. [https://doi.org/10.1016/S0304-4076\(98\)00009-8](https://doi.org/10.1016/S0304-4076(98)00009-8)
- Bradshaw, S., Chant, S., & Linneker, B. (2019). Challenges and Changes in Gendered Poverty: The Feminization, De-Feminization, and Re-Feminization of Poverty in Latin America. *Feminist Economics*, 25(1), 119–144. <https://doi.org/10.1080/13545701.2018.1529417>
- Branisa, B., Klasen, S., & Ziegler, M. (2013). Gender Inequality in Social Institutions and Gendered Development Outcomes. *World Development*, 45, 252–268. <https://doi.org/10.1016/j.worlddev.2012.12.003>
- Breitung, J., Kripfganz, S., & Hayakawa, K. (2022). Bias-corrected method of moments estimators for dynamic panel data models. *Econometrics and Statistics*, 24, 116–132. <https://doi.org/10.1016/j.ecosta.2021.07.001>
- Brinks, D. M., Levitsky, S., & Murillo, M. V. (2019). *Understanding institutional weakness: power and design in Latin American Institutions*. Cambridge University Press.
- Bulmer-Thomas, V. (2017). *La historia económica de América Latina desde la independencia*. Fondo de cultura económica.
- Cárdenas, M., & Tuzemen, D. (2011). Under-investment in State Capacity: The Role of Inequality and Political Instability. *Research Working Paper RWP*, (11–07).
- Chong, A., & Gradstein, M. (2007). Inequality and institutions. *The Review of Economics and Statistics*, 89, 454–465. <https://doi.org/https://doi.org/10.1162/rest.89.3.454>
- Cruz, M., & Sierra, R. (2023). Intersections between gender approaches, migration, and health in Latin America and the Caribbean: A discussion based on a scoping review. *ScienceDirect*. <https://www.sciencedirect.com/science/article/pii/S2667193X23001126>
- De Janvry, A., & Sadoulet, E. (2000). Rural poverty in Latin America: Determinants and exit paths. *Food Policy*, 25(4), 389–409.
- Dhaene, G., & Jochmans, K. (2016). Likelihood inference in an autoregression with fixed effects. *Econometric Theory*, 32(5), 1178–1215. <https://doi.org/10.1017/S0266466615000146>
- Dobson, S., & Ramlogan-Dobson, C. (2010). Is there a trade-off between income inequality and corruption? Evidence from Latin America. *Economics Letters*, 107(2), 102–104. <https://doi.org/10.1016/j.econlet.2009.12.038>
- Dryzek, J. S. (1996). The informal logic of institutional design. In *The theory of institutional design* (pp. 103–125). Cambridge University Press. <https://doi.org/https://doi.org/10.1017/CBO9780511558320.005>
- Dutta, I., & Mishra, A. (2005). *Inequality, corruption, and competition in the presence of market imperfections* (Number 2005/46). WIDER Research Paper.
- Engerman, S. L., & Sokoloff, K. L. (1994). *Factor endowments: institutions, and differential paths of growth among new world economies: a view from economic historians of the United States*. National Bureau of economic research Cambridge, Mass., USA.
- Evens, E., Lanham, M., Santi, K., Cooke, J., Ridgeway, K., Morales, G., Parker, C., Brennan, C., de Bruin, M., Desrosiers, P. C., Diaz, X., Drago, M., McLean, R., Mendizabal, M., Davis, D., Hershow, R. B., & Dayton,

- R. (2019). Experiences of gender-based violence among female sex workers, men who have sex with men, and transgender women in Latin America and the Caribbean: a qualitative study to inform HIV programming. *BMC International Health and Human Rights*, 19(1), 9. <https://doi.org/10.1186/s12914-019-0187-5>
- Everaert, G., & Pozzi, L. (2007). Bootstrap-based bias correction for dynamic panels. *Journal of Economic Dynamics and Control*, 31(4), 1160–1184. <https://doi.org/10.1016/j.jedc.2006.04.006>
- Fehder, D. C., Porter, M. E., & Stern, S. (2019). Economic Institutions and Social Progress. *AEA Papers and Proceedings*, 109, 350–356. <https://doi.org/10.1257/pandp.20191081>
- Ferrant, G., & Kolev, A. (2016). Does gender discrimination in social institutions matter for long-term growth? <https://doi.org/10.1787/5jm2hz8dgl6-en>
- Gasparini, L., Cruces, G., Bergolo, M., & Ham, A. (2010). Vulnerability to Poverty in Latin America - Empirical Evidence from Cross-Sectional Data and Robustness Analysis with Panel Data. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.1721003>
- Gasparini, L., & Lustig, N. (2011). The Rise and Fall of Income Inequality in Latin America. *Oxford University Press*. <https://doi.org/https://doi.org/10.1093/oxfordhb/9780199571048.013.0027>
- Gupta, S., Davoodi, H., & Alonso-Terme, R. (2002). Does corruption affect income inequality and poverty? *Economics of Governance*, 3(1), 23–45. <https://doi.org/10.1007/s101010100039>
- Jakšić, M., & Jakšić, M. (2018). Inclusive institutions for sustainable economic development. *Journal of Central Banking Theory and Practice*, 7(1), 5–16.
- Jordà, Ò. (2005). Estimation and Inference of Impulse Responses by Local Projections. *American Economic Review*, 95(1), 161–182. <https://doi.org/10.1257/0002828053828518>
- Khosim, N. (2021). Analysis of Islamic-Based Human Development: Concept and Significance. *Karadeniz Technical University*, 12(5), 10–15. <https://doi.org/10.17762/turcomat.v12i5.726>
- Kiviet, J. F. (1995). On bias, inconsistency, and efficiency of various estimators in dynamic panel data models. *Journal of Econometrics*, 68(1), 53–78. [https://doi.org/10.1016/0304-4076\(94\)01643-E](https://doi.org/10.1016/0304-4076(94)01643-E)
- Kiviet, J., Pleus, M., & Poldermans, R. (2017). Accuracy and Efficiency of Various GMM Inference Techniques in Dynamic Micro Panel Data Models. *Econometrics*, 5(1), 14. <https://doi.org/10.3390/econometrics5010014>
- Kripfganz, S., & Sarafidis, V. (2021). Instrumental-variable estimation of large-T panel-data models with common factors. *The Stata Journal: Promoting Communications on Statistics and Stata*, 21(3), 659–686. <https://doi.org/10.1177/1536867X211045558>
- Kugler, A. D. (2019). Impacts of Labor Market Institutions and Demographic Factors on Labor Markets in Latin America. *International Monetary Fund*, 19(155). <https://doi.org/10.5089/9781484393840.001>
- Lanham, M., Ridgeway, K., Dayton, R., Castillo, B. M., Brennan, C., Davis, D. A., Emmanuel, D., Morales, G. J., Cheririser, C., Rodriguez, B., Cooke, J., Santi, K., & Evens, E. (2019). “We’re Going to Leave You for Last, Because of How You Are”: Transgender Women’s Experiences of Gender-Based Violence in Healthcare, Education, and Police Encounters in Latin America and the Caribbean. *Violence and Gender*, 6(1), 37–46. <https://doi.org/10.1089/vio.2018.0015>
- Levitsky, S., & Murillo, M. V. (2005a). *Argentine democracy: The politics of institutional weakness*. Penn State Press.
- Levitsky, S., & Murillo, M. V. (2005b). *Argentine democracy: The politics of institutional weakness*. Penn State Press.
- Levitsky, S., & Murillo, M. V. (2010). Variación en la fortaleza institucional. *Revista de Sociología*, 24, 31–56. <https://doi.org/10.5354/0719-529X.2010.14399>
- Levitsky, S., & Murillo, M. V. (2012). Construyendo instituciones sobre cimientos débiles: lecciones desde América Latina. *Politai*, 3, 17–44. <https://revistas.pucp.edu.pe/index.php/politai/article/view/14124>
- Loayza, N. V., Servén, L., & Sugawara, N. (2009). *Informality In Latin America And The Caribbean*. The World Bank.

- Maternowska, C., Estrada, F., Campero, L., Herrera, C., Brindis, C. D., & Vostrejs, M. M. (2010). Gender, culture and reproductive decision-making among recent Mexican migrants in California. *Culture, Health & Sexuality*, 12(1), 29–43. <https://doi.org/10.1080/13691050903108688>
- Mazzuca, S. L. (2021). *Latecomer State formation: Political geography and capacity failure in Latin America*. Yale University Press.
- Mazzuca, S. L., & Munck, G. L. (2020). *A middle-quality institutional trap: Democracy and state capacity in Latin America*. Cambridge University Press.
- Mei, Z., Sheng, L., & Shi, Z. (2026). Nickell bias in panel local projection: Financial crises are worse than you think. *Journal of International Economics*, 160, 104210. <https://doi.org/10.1016/j.jinteco.2025.104210>
- Mella Gómez, L. E., & Prestol Flaquer, J. (2023). Corrupción, crecimiento e instituciones: ¿existe una tasa de sacrificio en América Latina? *Problemas Del Desarrollo. Revista Latinoamericana de Economía*, 55(216), 3–34. <https://doi.org/10.22201/iiec.20078951e.2024.216.70055>
- Mo, P. H. (2000). Income Inequality and Economic Growth. *Kyklos*, 53(3), 293–315. <https://doi.org/10.1111/1467-6435.00122>
- Müller, K., Xu, C., Lehib, M., & Chen, Z. (2025). *The Global Macro Database: A New International Macroeconomic Dataset*. <https://doi.org/10.2139/ssrn.5121271>
- Murillo, V., Levitsky, S., & Brinks, D. (2021). *La Ley y la trampa en América Latina: por qué optar por el debilitamiento institucional puede ser una estrategia política* (1st ed.). Siglo XXI Editores.
- Nickell, S. (1981). Biases in dynamic models with fixed effects. *Econometrica: Journal of the Econometric Society*, 1417–1426. <https://doi.org/10.2307/1911408>
- Norkutė, M., Sarafidis, V., Yamagata, T., & Cui, G. (2021). Instrumental variable estimation of dynamic linear panel data models with defactored regressors and a multifactor error structure. *Journal of Econometrics*, 220(2), 416–446. <https://doi.org/10.1016/j.jeconom.2020.04.008>
- North, D. C. (1990). *Institutions, institutional change and economic performance*. Cambridge university press.
- Odeh, L. E. (2010). A Comparative Analysis of Global North and Global South Economies. *Journal of Sustainable Development in Africa*, 12(3), 338–348. [http://www.jsd-africa.com/Jsda/V12No3_Summer2010_A/PDF/A%20Comparative%20Analysis%20of%20Global%20North%20and%20Global%20South%20Economies%20\(Odeh\).pdf](http://www.jsd-africa.com/Jsda/V12No3_Summer2010_A/PDF/A%20Comparative%20Analysis%20of%20Global%20North%20and%20Global%20South%20Economies%20(Odeh).pdf)
- Ogbuador, J. E., Onuigbo, F. N., Orji, A., & Anthony-Orji, A. I. (2020). Institutional Quality and Economic Performance in Nigeria: A New Evidence. *International Journal of Economics and Statistics*, 8. <https://doi.org/10.46300/9103.2020.8.7>
- Owusu-Afriyie, J., & Nketiah-Amponsah, E. (2014). An Individual Level Test of the “Feminization of Poverty” Hypothesis. *Journal of Developing Societies*, 30(1), 25–43. <https://doi.org/10.1177/0169796X13516351>
- Paek, H.-J., Nelson, M. R., & Vilela, A. M. (2011). Examination of Gender-role Portrayals in Television Advertising across Seven Countries. *Sex Roles*, 64(3–4), 192–207. <https://doi.org/10.1007/s11199-010-9850-y>
- Paldam, M., & Gundlach, E. (2008). Two Views on Institutions and Development: The Grand Transition vs the Primacy of Institutions. *Kyklos*, 61(1), 65–100. <https://doi.org/10.1111/j.1467-6435.2008.00393.x>
- Pan American Health Organization. (2011). *The UNGASS, gender, and women’s vulnerability to HIV/AIDS in the Americas*.
- Pan American Health Organization. (2022). *Health in the Americas: Dominican Republic*. <https://www.paho.org/en>
- Pearce, D. (1978). The Feminization of Poverty: Its Impact on Women’s and Children’s Health. *Institute for Women’s Policy Research*. <https://iwpr.org/wp-content/uploads/2021/01/D401.pdf>
- Pierri, D., Montes-Rojas, G., & Mira-Llambi, P. (2023). Persistent external deficits and balance of payments crises. *European Economic Review*, 159, 104568. <https://doi.org/10.1016/j.euroecorev.2023.104568>

- Pispira, J., Cevalco, J., & Silva, M. L. (2022). Gender-based violence in Latin America (Ecuador and Argentina): current state and challenges in the development of psychoeducational materials. *Discover Psychology*, 2(1), 48. <https://doi.org/10.1007/s44202-022-00060-4>
- Polloni-Silva, E., da Costa, N., Morales, H. F., & Sacomano Neto, M. (2021). Does Financial Inclusion Diminish Poverty and Inequality? A Panel Data Analysis for Latin American Countries. *Social Indicators Research*, 158(3), 889–925. <https://doi.org/10.1007/s11205-021-02730-7>
- Próchniak, M. (2014). An Attempt to Assess the Quantitative Impact of Institutions on Economic Growth and Economic Development. *International Journal of Management and Economics*, 38(1), 7–30. <https://doi.org/10.2478/ijme-2014-0012>
- Samarasinghe, T. (2019). *The relationship between institutions and economic development*. <https://ideas.repec.org/p/pramprapa/97755.html>
- Schmink, M. (1977). Dependent Development and the Division of Labor by Sex: Venezuela. *SAGE Publishing*, 4(1–2), 153–179. <https://doi.org/10.1177/0094582x7700400113>
- Sharma, G. (2023). Monopsony and gender. *Unpublished Manuscript*.
- Sikandar, F., Erokhin, V., Wang, H., Rehman, S., & Ivolga, A. (2021). The Impact of Foreign Capital Inflows on Agriculture Development and Poverty Reduction: Panel Data Analysis for Developing Countries. *Sustainability*, 13(6), 3242. <https://doi.org/10.3390/su13063242>
- Stelzner, M., & Bahn, K. (2022). Discrimination and Monopsony Power. *The Review of Black Political Economy*, 49(2), 152–174. <https://doi.org/10.1177/00346446211025646>
- Ugarte-Ruiz, A. (2026). *Panel Local Projections without Fixed-Effects: A Cumulative-Difference OLS Estimator* (BBVA; WP26/09).
- University of Minnesota. (2023). *Researching menstrual health in the Dominican Republic*. <https://twincities.umn.edu/news-events/researching-menstrual-health-dominican-republic>
- Viollaz, I. B. A. N. D. L. G. A. N. D. M. M. A. N. D. M. (2023). The role of children and work-from-home in gender labor market asymmetries: evidence from the COVID-19 pandemic in Latin America. *Springer Science+Business Media*, 21(4), 1191–1214. <https://doi.org/10.1007/s11150-023-09648-8>
- Zimmermann, F. (2022). Managing the Gender Wage Gap—How Female Managers Influence the Gender Wage Gap among Workers. *European Sociological Review*, 38(3), 355–370.