



НАЦИОНАЛЬНЫЙ ИССЛЕДОВАТЕЛЬСКИЙ
УНИВЕРСИТЕТ

The Activity of International Women Rights NGOs as a Moderator Between Gender Inequality and FDI Inflow

Term paper presentation

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Foreign direct investments (FDI):

- long-term investments based on strong and lasting interest and direct control of a resident in one economy in a company resident in another economy;
- “cold type” of investments, a more durable and stable source of an external source of financing compared with “hot” portfolio investments flows;
- grown significantly as a major form of international capital transfer over the past decades.

So, policymakers all over the world are trying to create an “FDI-friendly” environment.

FDI studies are generally **gender blind**, however:

- “Pink-collar” industries;
- "Race to the bottom" in women's rights in order to create an FDI-friendly environment;
- Women's rights as a factor of economic development (e.g. Ferrant and Kolev, 2016; Kazandjian et al., 2019);
- Human rights and minority rights as FDI drivers (e.g. Vadlamannati et al., 2018, Clark and Kwon, 2018).

How does gender inequality influence FDI inflow?

Understanding this connection is important both theoretically and practically:

- it will help to examine FDI drivers, which can be used to predict future FDI flows;
- it will help to implement the necessary policy-making strategies to create a favourable investment climate.

The goal of this study is to examine the relationship between gender inequality and FDI.

Research tasks:

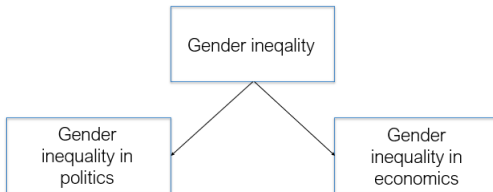
- to examine the mechanisms that are already described in the recent literature;
- to choose a theoretical framework that explains relations between gender equality and FDI, as well as the conditions of the character of this connection;
- test the relationship between gender equality and FDI on the available data.



The main approach to studying FDI is an OLI paradigm, which emphasizes the role of country-specific advantages, namely ownership, location and internalization.

FDI drivers:

- **economic factors:** regulations on labour market and labour rights; trade openness; macroeconomic stability; geographical and cultural proximity;
- **political factors:** political regime; the security of property rights, transparency, predictability of government policy; the guarantee of civil and human rights;



- the right to vote;
- the right to run for political office;
- the right to hold elected and appointed government positions;
- the right to petition government officials.

- equal pay;
- freedom to choose a profession and occupation;
- the right to paid work without the consent of a male relative;
- the right to equality in admission and promotion;
- the right to a safe working environment.



Existing empirical studies regarding the connection between gender inequality in economics and FDI demonstrate confusing results:

- Neoclassical hypothesis: gender inequality in economics is **negatively connected** with attracting foreign investment, since the vulnerability of certain groups increases the political risks and, as a result, should be associated with higher costs of investments (Becker, 2010);
- Several studies suggest a **positive connection**:
 1. the more gender discrimination in the labour market, the more competitive the market is, and, hence, firms can reduce wages (Braunstein, 2006);
 2. women are often seen as a “secondary” workforce, and it is less prone to strikes and demanding more labour rights, more suitable for monotonous work (Birdsall and Sabot, 1991)



Existing empirical studies regarding the connection between gender inequality in politics and FDI demonstrate confusing results:

- Some scholars argue that there is a **negative connection**: gender equality signifies a country's attitudes towards its citizens in general and different social groups and minorities in particular (Blanton and Blanton, 2015);
- Some scholars also argue that there is a **positive connection**:
 1. women participation in politics will narrow the gender gap in education, earnings and social rights due to various social reforms, therefore, the country will lose its competitive advantages (Brzozowski, 2013);
 2. Bui T. et al (2018), analyzing FDI in Asia-Pacific countries, showed that an increase in women's political rights reduces FDI inflow

1. Focus on specific groups of countries: members of intergovernmental economic organisations, developing countries, specific regions;
2. Focus on specific time periods;
3. Aggregate measure of gender inequality;
4. Focus on country-specific advantages, while lack of inclusion of reputational costs;



Human rights abuse alone is not sufficient to affect FDI flows => reputational costs.

Studies of HROs and FDI: "**boomerang pattern**" of transnational advocacy => organizations, working **within** the country sends a "boomerang" to members of international community, further, these third-party actors assist in pressuring the repressive regime => influence the connection between FDI and human rights.



Two possible explanations for the connection between FDI and HROs activity:

- **Spotlight phenomenon**: firms do not want to associate themselves with abusive regimes;
- **Outcast effect**: a state could not protect itself for being publicly shamed.



Previous studies account for "spotlight phenomenon" of media => **did not account for WROs.**

WROs are the main actors of women's rights movement, as due to their organizational structure, they are able to effectively accumulate resources.

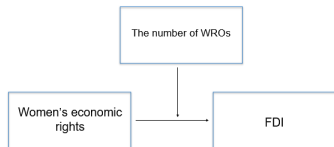
WROs strategies:

- Naming and shaming;
- "Shock tactics".

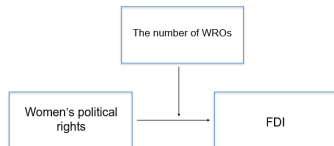
I suppose that the theoretical framework of the spotlight effect of HROs can be implemented in this study.

H1: the higher the respect towards women's economic rights, the lower is an FDI inflow to a country.

H2: the higher the respect towards women's political rights, the lower is an FDI inflow to a country.



H3: the number of Women's Rights Organizations moderates the relationship between the government's respect toward women's rights and FDI.



H3.1: the higher number of WRO weakens the negative relationship between the government's respect towards women's economic rights and FDI.

H3.2: the higher number of WRO weakens the negative relationship between the government's respect towards women's political rights and FDI.

- Time-Series Cross-Section data;
- 154 countries;
- 1980-2006 period, 26 years.

There are several possible measures of FDI: FDI flow and FDI stock.

- FDI stock measure the total level of investments in a given point of time, usually the end of a year, and inward FDI stocks refer to the value of foreign investors' equity in the given economy.
- I used FDI inward stock to measure FDI, as *"panel estimators transform flow into twice-differenced stock for that portion of the model examining longitudinal variation"* (Clark and Kwon, 2018).
- Transformation: $\ln(x + \sqrt{x^2 + 1})$

Variable name	Variable description	Definition	Source of data
Economic rights	Women's economic rights index	Ordinal variable ranging from 0 to 3	CIRI Human Rights Data Project
Political rights	Women's political rights index	Ordinal variable ranging from 0 to 3	CIRI Human Rights Data Project
WRO Presence	The number of WROs in a country in a given year	Continuous variable	Amanda Murdie & Dur-sun Peksen (2014)

Variable name	Variable description	Definition	Source of data
CEDAW	The ratification of the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW)	Binary variable	Amanda Murdie & Dur-sun Peksen (2014)
Human rights	Human rights	Ordinal variable ranging from 0 to 8	CIRI Human Rights Data Project
Labour rights	Labour rights	Ordinal variable ranging from 0 to 2	CIRI Human Rights Data Project
Political regime	The regime type	Ordinal variable	Polity IV index
Inflation	GDP deflator	Continuous variable	The World Bank
Economic Development	The logarithm of country's GDP	Continuous variable	The World Bank
Market size	The logarithm of the country's population	Continuous variable	The World Bank
Trade openness	Country's exports plus imports over GDP	Continuous variable	The World Bank

Lagged dependent variable models:

- location theory underlines the role of agglomeration effects in the formation of spatial clusters of investment funds, which are also connected with the choice of the location of FDI;
- some of the determinants of FDI are hard to identify or data are not always available, so using past values of FDI can help to overcome these problems;
- adding lagged dependent variables allows simulating the gradual attenuation of the effect.

Model 1: $FDI_{i,t} = \beta_0 + \Theta FDI_{i,t-1} + \gamma_1 * D_{1,i} + \dots + \gamma_{n-1} * D_{n-1,i} + \beta_1 * ec_rights1_{i,t} + \beta_2 * ec_rights2_2 + \beta_3 * ec_rights3_{i,t} + \begin{bmatrix} \beta_4 \\ \dots \\ \beta_{12} \end{bmatrix} * \overrightarrow{controls} + \epsilon_{i,t}$

Model 2: $FDI_{i,t} = \beta_0 + \Theta FDI_{i,t-1} + \gamma_1 * D_{1,i} + \dots + \gamma_{n-1} * D_{n-1,i} + \beta_1 * pol_rights1_{i,t} + \beta_2 * pol_rights2_2 + \beta_3 * pol_rights3_{i,t} + \begin{bmatrix} \beta_4 \\ \dots \\ \beta_{12} \end{bmatrix} * \overrightarrow{controls} + \epsilon_{i,t}$

Model 3: $FDI_{i,t} = \beta_0 + \Theta FDI_{i,t-1} + \gamma_1 * D_{1,i} + \dots + \gamma_{n-1} * D_{n-1,i} + \beta_1 * ec_rights1_{i,t} + \beta_2 * ec_rights2_{i,t} + \beta_3 * ec_rights3_{i,t} + \beta_4 * WRO_{i,t} + \beta_5 ec_rights1 * WRO + \beta_6 ec_rights2 * WRO + \beta_7 ec_rights3 * WRO + \begin{bmatrix} \beta_8 \\ \dots \\ \beta_{16} \end{bmatrix} * \overrightarrow{controls} + \epsilon_{i,t}$

Model 4: $FDI_{i,t} = \beta_0 + \Theta FDI_{i,t-1} + \gamma_1 * D_{1,i} + \dots + \gamma_{n-1} * D_{n-1,i} + \beta_1 * pol_rights1_{i,t} + \beta_2 * pol_rights2_{i,t} + \beta_3 * pol_rights3_{i,t} + \beta_4 * WRO_{i,t} + \beta_5 pol_rights1 * WRO + \beta_6 pol_rights2 * WRO + \beta_7 pol_rights3 * WRO + \begin{bmatrix} \beta_8 \\ \dots \\ \beta_{16} \end{bmatrix} * \overrightarrow{controls} + \epsilon_{i,t}$

Table 7: LDV: lagged 1 FDI stock and women's economic rights

	Dependent variable:					
	log_fdi2					
	Model 9	Model 10	Model 11	Model 12	Model 13	Model 14
LAG1stock	0.933*** (0.005)	0.924*** (0.005)	0.923*** (0.005)	0.915*** (0.005)	0.838*** (0.007)	0.828*** (0.008)
ec_rights1	0.070** (0.028)	0.065** (0.028)	0.066** (0.028)	0.064** (0.028)	0.063** (0.027)	0.076*** (0.027)
ec_rights2	0.075** (0.032)	0.068** (0.032)	0.070** (0.033)	0.073** (0.032)	0.076** (0.031)	0.090*** (0.031)
ec_rights3	0.125** (0.051)	0.139*** (0.052)	0.141*** (0.052)	0.145*** (0.052)	0.140*** (0.049)	0.134*** (0.046)
cedaw1		-0.041** (0.020)	-0.040** (0.020)	-0.039* (0.020)	-0.014 (0.019)	-0.015 (0.019)
hum_rights		0.003 (0.004)	0.003 (0.004)	-0.001 (0.004)	-0.0002 (0.004)	-0.006 (0.004)
lab_rights1			0.022 (0.016)	0.008 (0.016)	0.001 (0.016)	0.011 (0.016)
lab_rights2			-0.011 (0.021)	-0.025 (0.021)	-0.002 (0.020)	0.004 (0.020)
polity2				0.007*** (0.002)	0.0001 (0.002)	-0.001 (0.002)
log_gdp					0.215*** (0.018)	0.245*** (0.019)
log_population					0.243*** (0.052)	0.161*** (0.052)
trade_op						0.002*** (0.0004)
inflation						-0.00003* (0.00002)
Observations	3,226	3,048	3,046	3,024	2,907	2,479
R ²	0.929	0.926	0.926	0.927	0.929	0.934
Adjusted R ²	0.925	0.922	0.923	0.923	0.925	0.930
F Statistic	10,045.560*** (df = 4; 3070)	10,064.509*** (df = 6; 2897)	10,549.944*** (df = 8; 2893)	10,041.556*** (df = 9; 2871)	13,269.607*** (df = 11; 2756)	2,553.156*** (df = 13; 2339)

Note:

* p<0.1; ** p<0.05; *** p<0.01

Table 8: LDV: lagged 1 FDI stock and women's political rights

	Dependent variable:					
	log_fdi2					
	Model 15	Model 16	Model 17	Model 18	Model 19	Model 20
LAG1stock	0.930*** (0.005)	0.920*** (0.005)	0.919*** (0.005)	0.913*** (0.005)	0.838*** (0.007)	0.827*** (0.008)
pol_rights1	0.017 (0.036)	-0.030 (0.038)	-0.031 (0.038)	-0.043 (0.039)	0.017 (0.040)	0.100** (0.045)
pol_rights2	0.068* (0.037)	0.026 (0.039)	0.024 (0.039)	0.002 (0.040)	0.039 (0.041)	0.129*** (0.046)
pol_rights3	0.167*** (0.050)	0.139*** (0.052)	0.134** (0.052)	0.115** (0.053)	0.136** (0.053)	0.214*** (0.056)
cedaw1		-0.034* (0.020)	-0.033 (0.020)	-0.032 (0.020)	-0.012 (0.019)	-0.016 (0.019)
hum_rights		0.001 (0.004)	0.001 (0.004)	-0.002 (0.004)	-0.001 (0.004)	-0.007* (0.004)
lab_rights1			0.021 (0.016)	0.009 (0.016)	0.002 (0.015)	0.008 (0.015)
lab_rights2			-0.005 (0.021)	-0.017 (0.021)	0.003 (0.020)	0.002 (0.020)
polity2				0.006*** (0.002)	-0.0002 (0.002)	-0.002 (0.002)
log_gdp					0.208*** (0.018)	0.241*** (0.019)
log_population					0.235*** (0.053)	0.130** (0.053)
trade_op						0.002*** (0.0004)
inflation						-0.00003* (0.00002)
Observations	3,264	3,083	3,081	3,059	2,934	2,497
R ²	0.931	0.928	0.928	0.929	0.930	0.934
Adjusted R ²	0.928	0.925	0.925	0.925	0.926	0.930
F Statistic	10,553.630*** (df = 4; 3108)	5,333.591*** (df = 6; 2932)	4,749.575*** (df = 8; 2928)	4,214.550*** (df = 9; 2906)	3,345.076*** (df = 11; 2783)	2,577.242*** (df = 13; 2357)

Note:

*p<0.1; **p<0.05; ***p<0.01

Thus, we can see that there is a positive connection between both women's political and economic rights and FDI stock.

Table 9: LDV: lagged 1 FDI stock and interaction between women's economic rights and the number of WROs

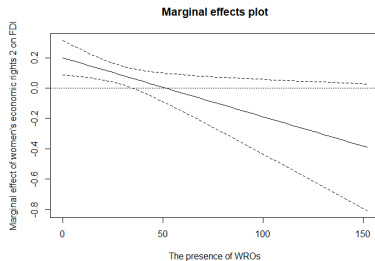
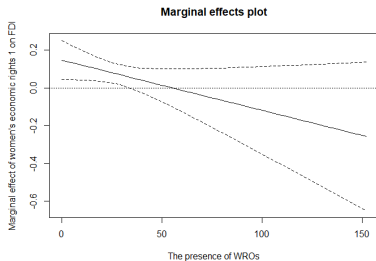
	Dependent variable:					
	log_fdi2					
	Model 21	Model 22	Model 23	Model 24	Model 25	Model 26
LAG1stock	0.868*** (0.006)	0.867*** (0.006)	0.869*** (0.006)	0.869*** (0.007)	0.826*** (0.007)	0.808*** (0.009)
ec_rights1	0.156*** (0.048)	0.156*** (0.048)	0.158*** (0.048)	0.158*** (0.048)	0.129*** (0.047)	0.147*** (0.053)
ec_rights2	0.214*** (0.054)	0.216*** (0.054)	0.223*** (0.053)	0.224*** (0.053)	0.200*** (0.053)	0.200*** (0.058)
ec_rights3	0.307*** (0.105)	0.309*** (0.105)	0.296*** (0.104)	0.297*** (0.104)	0.243** (0.101)	0.081 (0.103)
wro_presence	0.013*** (0.002)	0.013*** (0.002)	0.014*** (0.002)	0.014*** (0.002)	0.016*** (0.002)	0.008*** (0.002)
cedaw1		-0.022 (0.020)	-0.025 (0.020)	-0.025 (0.019)	-0.018 (0.019)	-0.017 (0.019)
hum_rights			0.007* (0.004)	0.007* (0.004)	0.004 (0.004)	-0.004 (0.004)
lab_rights1				0.0003 (0.015)	-0.0004 (0.015)	0.008 (0.015)
lab_rights2				-0.011 (0.020)	-0.004 (0.020)	-0.001 (0.020)
polity2					-0.001 (0.002)	-0.002 (0.002)
log_gdp					0.148*** (0.018)	0.202*** (0.020)
log_population						0.049 (0.056)
trade_op						0.002*** (0.0004)
inflation						-0.00003* (0.00002)
ec_rights1:wro_presence	-0.004** (0.002)	-0.004** (0.002)	-0.004** (0.002)	-0.004** (0.002)	-0.003* (0.002)	-0.003* (0.002)
ec_rights2:wro_presence	-0.005*** (0.002)	-0.005*** (0.002)	-0.006*** (0.002)	-0.006*** (0.002)	-0.004*** (0.002)	-0.004** (0.002)
ec_rights3:wro_presence	-0.006*** (0.002)	-0.006*** (0.002)	-0.006*** (0.002)	-0.006*** (0.002)	-0.004* (0.002)	-0.001 (0.002)
Observations	3,063	3,063	3,048	3,046	2,933	2,479
R ²	0.932	0.932	0.931	0.931	0.932	0.935
Adjusted R ²	0.928	0.928	0.928	0.928	0.928	0.932
F Statistic	4,954.311*** (df = 8; 2910)	4,944.364*** (df = 9; 2909)	5,928.408*** (df = 10; 2893)	5,269.746*** (df = 12; 2889)	7,717.516*** (df = 14; 2778)	9,991.131*** (df = 17; 2335)

Note:

*p<0.1; **p<0.05; ***p<0.01

Thus, we can see that:

- the coefficient of wro presence is statistically significant;
- the direct effect of women's economic rights on FDI when there is no WROs is positive;
- interaction between the first level of women's economic rights and FDI, and interaction between the second level of women's economic rights and FDI are statistically significant and negative => **consistent with OLI?**



Thus, the marginal effects of the presence of women's rights organizations are statistically significant only in cases where there are less than 40 WROs.

Table 10: LDV: lagged 1 FDI stock and interaction between women's political rights and the number of WROs

	Dependent variable:					
	log_fdi2					
	Model 27	Model 28	Model 29	Model 30	Model 31	Model 32
LAG1stock	0.872*** (0.006)	0.872*** (0.006)	0.865*** (0.006)	0.865*** (0.007)	0.828*** (0.007)	0.809*** (0.008)
pol_rights1	-0.089 (0.067)	-0.088 (0.067)	-0.092 (0.066)	-0.092 (0.066)	-0.046 (0.073)	0.046 (0.088)
pol_rights2	-0.027 (0.068)	-0.027 (0.068)	-0.014 (0.068)	-0.014 (0.068)	0.031 (0.074)	0.162* (0.091)
pol_rights3	0.013 (0.103)	0.013 (0.103)	0.029 (0.102)	0.028 (0.102)	0.037 (0.105)	0.063 (0.119)
wro_presence	0.008* (0.004)	0.008* (0.004)	0.009** (0.004)	0.009*** (0.004)	0.004 (0.004)	0.005 (0.005)
cedaw1		-0.016 (0.020)	-0.019 (0.020)	-0.019 (0.020)	-0.014 (0.019)	-0.015 (0.019)
hum_rights			0.007 (0.004)	0.007 (0.004)	0.003 (0.004)	-0.004 (0.004)
lab_rights1				0.002 (0.015)	-0.001 (0.015)	0.001 (0.015)
lab_rights2				-0.003 (0.020)	0.0004 (0.020)	-0.008 (0.020)
polity2					-0.0004 (0.002)	-0.002 (0.002)
log_gdp					0.152*** (0.018)	0.208*** (0.020)
log_population						0.031 (0.056)
trade_op						0.001*** (0.0004)
inflation						-0.00003* (0.00002)
pol_rights1:wro_presence	0.002 (0.004)	0.002 (0.004)	0.002 (0.004)	0.002 (0.004)	0.004 (0.004)	0.002 (0.005)
pol_rights2:wro_presence	0.001 (0.004)	0.001 (0.004)	-0.001 (0.004)	-0.001 (0.004)	0.002 (0.004)	-0.001 (0.005)
pol_rights3:wro_presence	0.0004 (0.004)	0.0004 (0.004)	-0.001 (0.004)	-0.001 (0.004)	0.003 (0.004)	0.001 (0.005)
Observations	3,098	3,098	3,083	3,081	2,960	2,497
R ²	0.933	0.933	0.933	0.933	0.932	0.936
Adjusted R ²	0.929	0.929	0.929	0.929	0.929	0.932
F Statistic	5,108.522*** (df = 8; 2945)	5,440.512*** (df = 9; 2944)	4,052.207*** (df = 10; 2928)	3,372.560*** (df = 12; 2924)	7,696.726*** (df = 14; 2805)	7,012.465*** (df = 17; 2353)

Note:

*p<0.1; **p<0.05; ***p<0.01

Thus, we can see that moderator terms and the number of WROs are statistically insignificant.



I implemented several robustness checks:

- Treatment of women's rights predictors as a set of dummies: both in Model 14 and in Model 20 effects of women's rights remains the same when moving to next category.
- Using shaming activity instead the number of WROs, following Murdie and Peksen (2015): different results;

Table 11: Robustness checks: shaming events as moderation variable

	Dependent variable	
	log_fdi2	
	(1)	(2)
ec_rights1	0.458*** (0.122)	
ec_rights2	0.450*** (0.136)	
ec_rights3	0.657*** (0.185)	
pol_rights1		0.006 (0.280)
pol_rights2		0.317 (0.286)
pol_rights3		0.838** (0.312)
shaming_total	0.001 (0.007)	-0.073*** (0.022)
cedaw	-0.312*** (0.074)	-0.304*** (0.073)
hum_rights	-0.029* (0.017)	-0.033** (0.016)
lab_rights	-0.044 (0.037)	-0.053 (0.037)
polity2	-0.002 (0.007)	-0.001 (0.007)
log_gdp	1.505*** (0.069)	1.506*** (0.068)
log_population	0.483* (0.291)	0.138 (0.295)
trade_op	0.013*** (0.001)	0.011*** (0.001)
inflation	-0.0004*** (0.0001)	-0.0003*** (0.0001)
shaming_total:ec_rights1	0.005 (0.008)	
shaming_total:ec_rights2	0.003 (0.008)	
shaming_total:ec_rights3	-0.004 (0.013)	
shaming_total:pol_rights1		0.090*** (0.022)
shaming_total:pol_rights2		0.075*** (0.022)
shaming_total:pol_rights3		0.081*** (0.022)
Observations	1,177	1,177
R ²	0.574	0.586
Adjusted R ²	0.527	0.540
F Statistic (df = 15; 1058)	95.238***	99.891***

Note: *p<0.1; **p<0.05; ***p<0.01



Proposed hypotheses 1-2 were not confirmed.

- **both women's economic and political rights are positively connected with FDI** \Rightarrow the higher respect towards women's rights, the higher is an FDI inflow to a country;
- These results contradict with OLI paradigm and confirm neoclassical hypothesis;
- These results also show that the "race to the bottom" in gender inequality is not effective.



Proposed hypotheses 3.1-3.2 were not confirmed.

- The interaction terms between women's political rights and the number of WROs in the country were not statistically significant => however, after estimating models using the different measurement of the moderator, interaction terms are positive and statistically significant;
- Differences between the number of WROs and number of shaming events should be discussed in further studies.



Proposed hypotheses 3.1-3.2 were not confirmed.

- Regarding the interaction between women's economic rights and the number of WROs, it was found statistically significant for the first and second levels of economic rights;
- The marginal effects of the presence of women's rights organizations are statistically significant only in cases where there are less than 40 WROs => this threshold represents a relatively large network of organizations, which cover different spheres of activities, and the increase of the number of organizations after it will not affect reputation costs



Proposed hypotheses 3.1-3.2 were not confirmed.

These findings contradict the "spotlight theory", and open further discussion about the implementation of "boomerang pattern" to the activity of women's rights organizations.



There are several limitations of the research:

- the variable inflow of foreign direct investment accumulates all investments, regardless of the sector of the economy;
- the variable inflow of foreign direct investment does not account for structural differences (e.g. horizontal v. vertical);
- there is no diversification by type of activity of organizations and by the type of strategies they use;

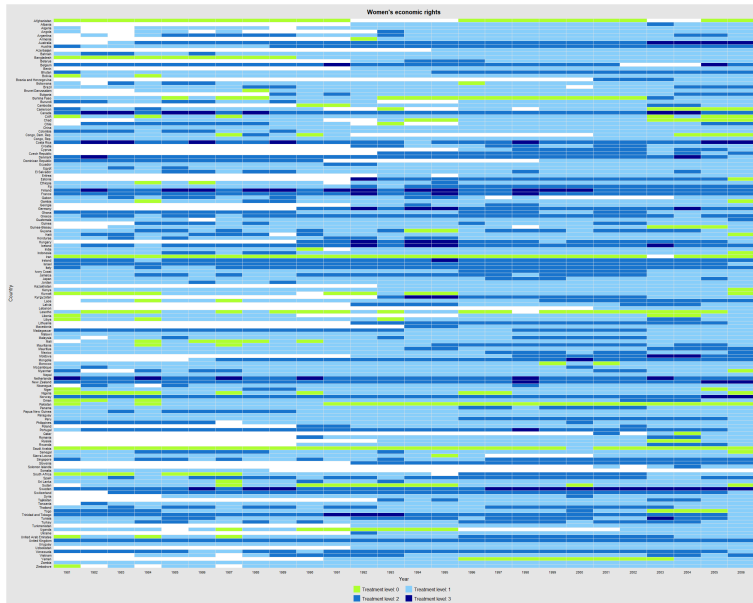
The Activity of International Women Rights NGOs as a Moderator Between Gender Inequality and FDI Inflow

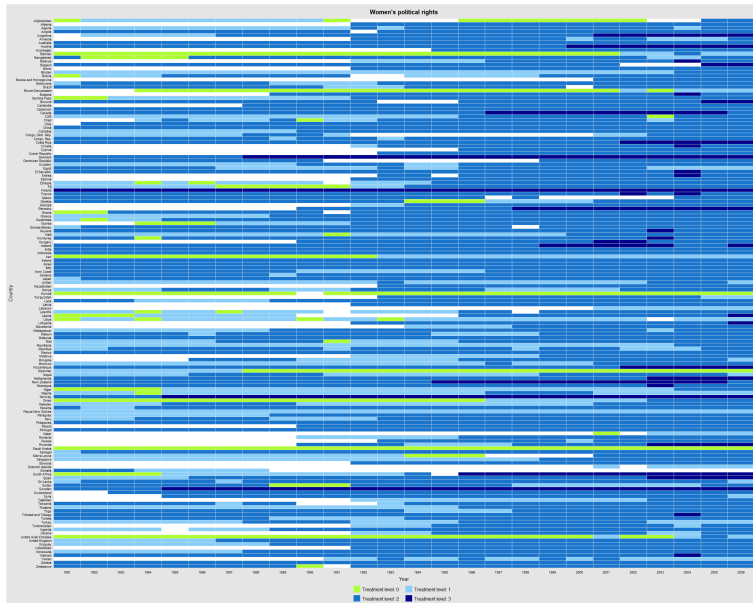
Polina Revina

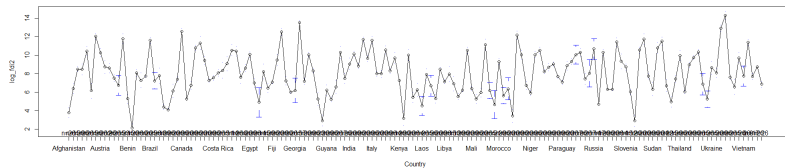
Research advisor: Daria Salnikova

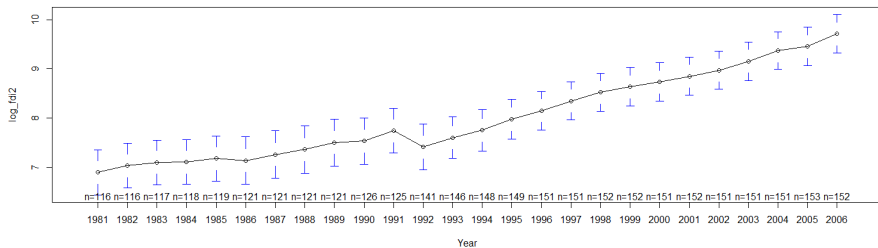
NRU HSE(Moscow)

June 1, 2021

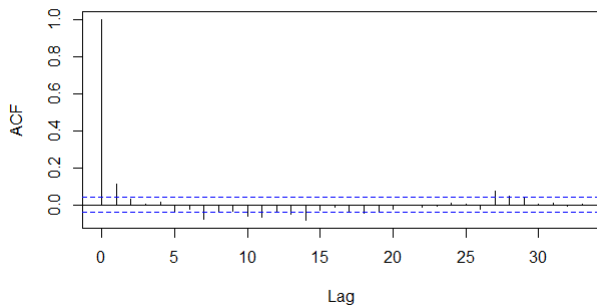




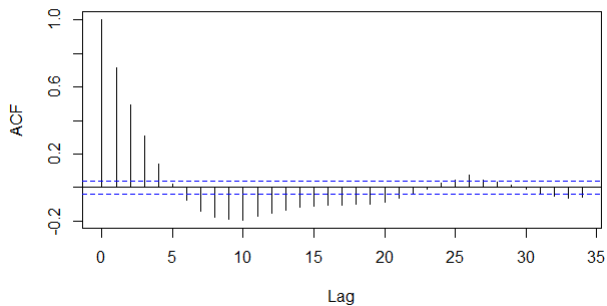




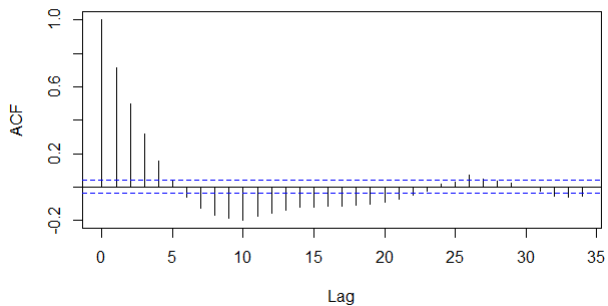
Series model0_lag\$residuals



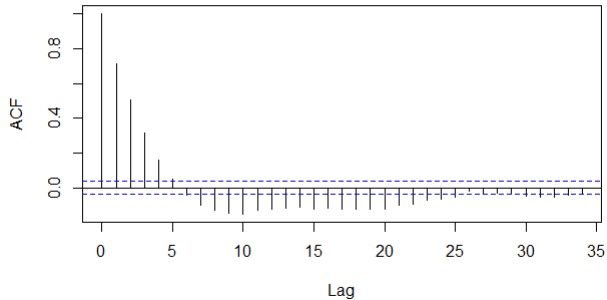
Series residuals



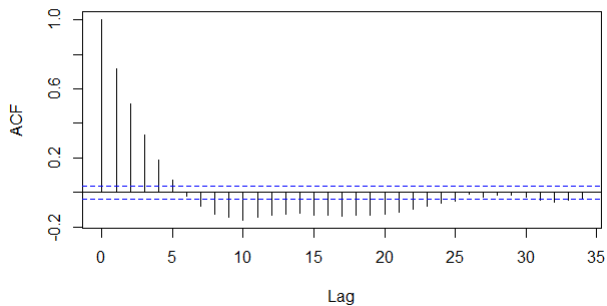
Series residuals1



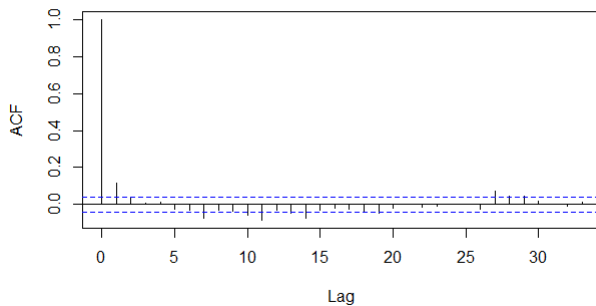
Series residuals2



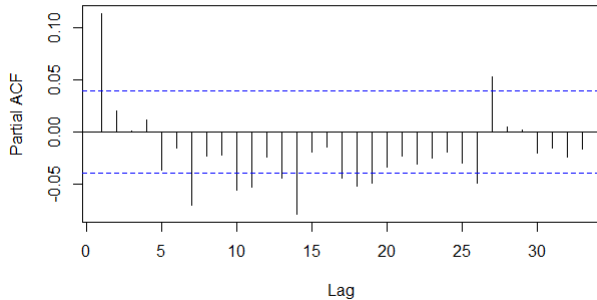
Series residuals3



Series model1_lag1\$residuals



Series model0_lag\$residuals



Series model1_lag1\$residuals

