

Does International Convention on Gender Equality

Increase Economic Growth?

– A Panel Analysis on the Effects of CEDAW

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Summaries:

This paper analyzes empirically whether the membership of the international convention on gender equality affects economic growth in a country. Despite suggested positive linkage between gender equality and economic growth, gender policy may be arguably costly to implement in domestic politics, particularly if a society is conservative. A possible way to pursue the socially optimal goal of gender equality while avoiding possible domestic resistance is international delegation. We test (i) whether and to what extent the international delegation of gender policy increases economic growth; and (ii) whether effects of international delegation on economic growth are greater in more conservative societies. Using panel data for 138 countries, we do not find statistically significant effects of CEDAW on GDP per capita growth, but find positive effects in 37 Muslim-majority countries, with being Muslim majority our proxy for 'more conservative society'. These findings are robust to the choice of control variables and the method of estimation. In particular, taking account for potential endogeneity of CEDAW membership does not alter our main conclusions.

Key words: Gender Equality; Economic Growth; and International Delegation

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1. Introduction

There exists plenty of literature suggesting positive correlation between gender equality and economic growth (Klasen and Lamanna 2008), or negative correlation between gender inequality and growth (Dollar and Gatti 1999, Knowles et al. 2002).

It is reasonable to assume that economic growth is a long-term goal of governments and politicians, regardless of types of political regimes. As gender equality is positively correlated to economic growth—as suggested by many influential studies above, politicians should be also concerned about improving gender equality in their country. However, pursuing gender equality could be costly in domestic politics because of potential resistance in traditionally male-dominant society and possible budgetary concerns regarding gender equality programs (e.g. expenses for building more schools for girls).

Seeking (potentially) unpopular policy, even if fundamentally important to the long term development of a country, may be risky for politicians' career. Vaubel (1986) suggests in the principle of public choice theory that the objective of politicians be to maximize their personal utility. As Frey and Lau (1968) argue, the preservation of power is at the core of the maximization of utility. Thus, politicians facing an election may not pursue potentially unpopular long-term goals but rather populist, short-term goals in order to be re-elected. As a possible way to avoid this time-inconsistency problem in the pursuit of political goals, Voigt and Salzberger (2002) propose the delegation of certain responsibilities to a third body beyond governments' control.

Gender-related policies could be subject to the time-inconsistency problem. Politicians who want to pursue gender equality as part of the long-term economic development strategy may find it difficult to remain in office while implementing unpopular policies. Thus, they delegate responsibilities for gender policies to the international level by joining an international convention on gender equality. Incentives to delegate gender policy at the international level are arguably greater in more conservative societies as domestic resistance towards such policies is expected to be larger.

In this paper, we use the membership of the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) as a proxy to the international delegation of gender policies.

We test (i) whether and to what extent the international delegation of gender policy increases economic growth; and (ii) whether effects of international delegation on economic growth are greater in more conservative societies.

Through our econometric testing by employing panel data of 138 countries, we found that there are positive effects of commitments to the CEDAW on economic growth in conservative countries, proxied as 'Muslim majority countries, while there is no statistically significant evidence on impact of the CEDAW in other countries.

In the followings, Section 2 discusses linkages between economic growth and gender equality and gender equality and international delegation. In Section 3, we present our estimation approaches including the hypotheses for testing and measurement of international delegation of gender policy. Section 4 presents the results of econometric testing on the hypotheses including robustness check. Finally, Section 5 addresses further issues and conclusions.

2. Literature Review

2.1. Gender Equality and Economic Growth

Gender discrimination takes various forms in the economic and social spheres all over the world, though the degrees of discrimination differ from country to country. Beyond its obvious negative impact on the lives and well-being of women, such discrimination arguably has a number of “instrumental impacts [...] on other development outcomes” (Klasen and Lamanna 2008). The importance of gender equality – in particular in education and employment – for economic growth has recently received increasing attention in the political-economy literature, among other things bringing about a reversion of Barro and Lee’s (1994) early finding of a positive effect of gender inequality on economic growth.

Dollar and Gatti (1999) regard unequal access to educational opportunities for girls as an inefficient choice for a society and argue that returns to education for girls are often found to be substantially higher than those for boys in middle-income countries. In other words, neglecting girls’ education means the abandonment of highly profitable investments in human capital and therefore impedes economic growth. Furthermore, Knowles et al. (2002) devise a gender-specific neo-classical growth model with positive but diminishing marginal returns to education for both boys and girls. In this framework it is obvious that a biased distribution of educational investment in favor of boys would

causes additional inefficiencies, lowering economic growth (Blackden et al. 2006). More precisely, Yamarik and Ghosh (2004) find that one additional year of female schooling is typically associated with an increase of GDP per capita growth by 0.2-0.7% per year.

Furthermore, gender equality in education and employment is positively related to economic growth through demographic channels. Lagerlöf (2003) suggests that women's advancement in terms of educational achievements increases the opportunity costs of their time spent on child rearing, encouraging women to substitute quality for quantity in children. As a result, declining fertility rates give rise to higher rates of human capital accumulation and increasing income per capita. The negative impact of female education on fertility and mortality rates has also been found in an earlier study by Subbarao and Raney (1992). Galor and Weil (1996) on the other hand explain the same pattern of fertility choices with reference to increases in women's wages.

In addition, there are negative effects of gender discrimination in labor markets on economic growth suggested in the literature. Esteve-Volart (2004) for example points out the problem of the resulting underutilization of women's "talent". Discriminatory practices in labor markets result in a lower average ability of managers, stimulating fewer innovations, as well as a reduced average productivity of workers³. Moreover, Klasen and Lamanna (2008) note that increased contributions of women to household income through employment and wages improve their bargaining position in the family, with women's empowerment in the family leading to increased savings, more investment in children's health and education as well as a more efficient use of credits.

Another aspect concerning the link between gender discrimination and economic growth comes from the literature on corruption. Swamy et al. (2001) find that women appear to have a more adverse attitude towards corruption and that female managers are less likely to engage in this sort of illegal activities. Taking into account that corruption is generally understood as an obstacle to a country's development (see Mauro 1995; Gyimah-Brempong 2002), having more women in decision-making positions would generate positive effects on economic growth.

³ On the other hand, there exists evidence of a positive linkage between gender-based discrimination in labor markets and growth. Seguino (2000) finds that the concentration of women in certain export-oriented industries leads to low wage levels in these industries, thereby promoting exports, which should theoretically lead to increasing economic growth. However, this theoretical conclusion is not confirmed by empirical studies.

2.2. Time-inconsistency and Credibility Issues in Gender Policy

Despite the positive linkage between gender equality and economic growth suggested by many studies, the growth effects to be expected do not always appear to motivate politicians to take more decisive measures promoting gender equality, which is supported by the fact that gender inequality and discrimination are still prevalent in many countries. One possible explanation for this phenomenon is offered by public choice theory.

Vaubel (1986) outlines one of the basic principles of public choice theory, namely the objective of politicians to maximize their personal utility. According to Frey and Lau (1968), one of the main factors positively affecting politicians' utility is the preservation of their political power, which is even likely to become their overriding concern when elections approach. Consequently, politicians facing an election are inclined to devise popular policies that maximize their expected vote share. However, Frey and Lau also attribute to politicians the intention to pursue ideologically motivated long-term goals. Assuming that popular policies directed at increasing vote shares in the next election concern short-term goals and that ideological policies aim at long-term goals, politicians are subject to time-inconsistent preferences (Majone 2001). Consequently, if those two types of goals contradict each other, politicians have strong incentives to focus on short-term policy measures that keep them in office instead of pursuing long-term goals.

In order to overcome the socially sub-optimal short-term focus, certain responsibilities could be delegated to a third body beyond national governments' immediate control such as an international organization (Voigt and Salzberger 2002). From the perspective of game theory, the delegation to an independent body would amount to changing the payoffs of the game, because interfering with actions of an independent body is deemed to be more costly for politicians than a policy change within national government's discretion. Once costs of interference have risen to a level above the potential gains, politicians no longer have incentives to deviate from their preannounced (long-term) policies in favor of more populist ones and therefore these policies gain credibility (Dreher and Voigt 2008).

Given not only the postulate of equality of men and women enshrined in fundamental human rights, but also the role of gender equality in promoting economic growth as discussed in chapter 2.1, it is reasonable to assume that combating discrimination against women is in a country's long-term interest.

However, drawing on the results of public choice theory as outlined above, domestic politicians may be unable to credibly commit themselves to policies promoting gender-equality because such policies are likely to face resistance from certain conservative or traditionalist circles in many societies, who are unwilling to grant women a higher degree of empowerment. Dollar and Gatti (1999) basically draw the same conclusion from their econometric study. They note on the issue, that religion variables, which are often interpreted as being indicative of the prevalence of conservative attitudes in a society, are of high explanatory power with respect to gender-related discrimination, indicating social preferences for inequality. Dollar and Gatti further argue that more conservative societies are obviously willing to sacrifice economic growth in order to realize their (inefficient) preferences.

On the other hand, the high costs often associated with policies promoting gender equality may be another factor that could render such policies rather unpopular. For instance, according to estimations of the United Nations Millennium Project (2005), achieving universal primary enrollment for boys and girls would require an increase of the relevant budget in Sub-Saharan Africa of up to 30%. Another example from the same source shows that the costs for making reproductive health services globally available are estimated at around \$11 billion⁴ per year.

Taking societal preferences for inequality and budgetary concerns into account, gender-related policies are likely to be rather unpopular. They are therefore prone to be constrained by time-inconsistent, socially sub-optimal preferences because politicians have incentives to renege on policies promoting gender equality before an election, resulting in a lack of policy credibility that will hamper reductions in gender-based discrimination.

2.3. International Delegation of Gender Policy

A possible way to overcome the time-inconsistency problem and gain credibility concerning gender-related policies is the delegation of responsibilities to the international level, as suggested by public choice theory. Indeed, gender equality is of the utmost concern to the international community, representing an important part of the UN Millennium Development Goals. Also, the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), which aims at improving and establishing comprehensive rights for women including civil, political, economic, social and cultural

⁴ Denominated in 2003-dollar term.

rights, has become a nearly universal agreement on gender equality. Until today, it has been ratified by 185 countries after its adoption by the UN General Assembly in 1979.

The process of ratification makes a United Nations convention legally binding in a member country and requires it to create appropriate domestic legislation. Also, the Committee on the Elimination of Discrimination against Women has been implemented to monitor the compliance of member parties. Each member state is obliged to submit a report on its progress in reducing gender inequality in maximum intervals of four years to the Committee, which in turn reports annually to the UN General Assembly and makes recommendations based on the information received (OHCHR 2008a).

Through this mechanism, it will become public knowledge if individual nations fail to comply with the treaty provisions, which would lead to a negative impact on the respective nation's international reputation. Dreher and Voigt (2008) suggest that the disapproval of the public with respect to governments reneging on their promises is particularly strong in the international sphere due to possible damages to the respective country's international reputation. Dreher and Voigt furthermore explain that possible sanctions by other member states such as cuts in development aid can increase the costs faced by politicians for breaking promises and therefore improve the credibility of the preannounced policies.

3. Estimation Approach

3.1. Hypotheses

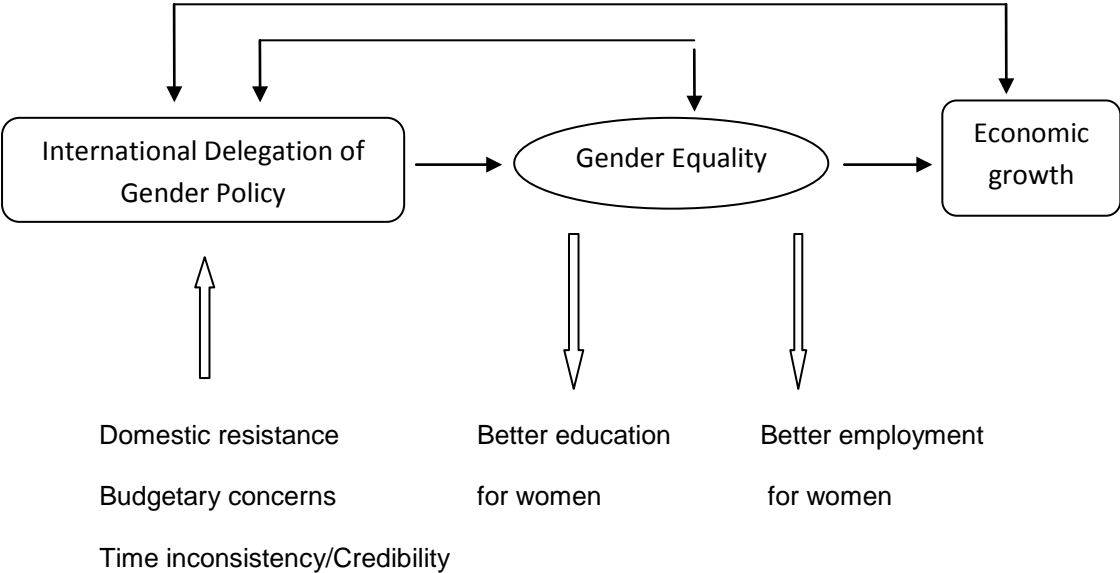
In this paper, we attempt to establish a linkage between two important discussions in the development and political economy literature: gender equality as a driver of economic growth; and the efficiency of international delegation of certain policy. As suggested by many influential studies, gender equality promotes economic growth in a country. But, in spite of this clear advantage, policies pursuing gender equality likely provoke domestic resistance due to conservatism, especially in more conservative societies. International delegation has been proposed as a possible solution to the resulting time-inconsistency problem.

Based on the discussions, we hypothesize that the international delegation of gender policy is positively correlated to economic growth. Furthermore, as resistance to gender policy in domestic settings is likely greater in conservative society, the international delegation of gender policy is likely

more effective in these countries. Thus, we assume that the positive effects of international delegation are stronger in more conservative countries.

Figure 1 below shows the hypothesized transmission mechanism linking the international delegation, gender equality and economic growth. The straight lines with double arrows indicate possible endogeneity problems that a country with higher economic growth and/or gender equality may be more likely to delegate gender policy at the international level (as risks of international sanctions for violating international agreements are smaller). We will check this endogeneity issue in our econometric testing in Section 4-3.

Figure 1: Hypothesized Transmission Mechanism



More precisely, we will empirically test the following two hypotheses in the following section.

Hypothesis 1). The international delegation of gender policy increases economic growth

Hypothesis 2). The effects of international delegation on economic growth are greater in more conservative societies.

3.2. CEDAW as a Proxy to International Delegation of Gender Policy

In this paper, we use the membership of the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) as a proxy to the international delegation of gender-related policies. There are several justifications for using this Convention as the proxy.

First, as mentioned in section 2.3, the CEDAW, adopted by the UN General Assembly in 1979 and effective since 1981, is arguably one of the most important international agreements on gender equality. Also, with 185 member parties it is nearly universally recognized.

Secondly, the CEDAW is an international agreement that has already been utilized effectively to improve the situation of women in several respects, for example in terms of life expectancy, illiteracy rates, employment share and proportion of seats in national parliaments. The effects of the CEDAW on women's status are mainly investigated in other disciplines in social sciences such as political science and law (Gray et al. 2004; Sweeney 2004) and their testing results – although possible endogeneity issues are mostly ignored – show positive impact of the CEDAW on gender equality.

Thirdly, the CEDAW focuses among other aspects on the enhancement of female education and employment, which have been shown to be closely correlated to economic growth (Klasen and Lamanna 2008; Dollar and Gatti 1999). In particular, article 10 of the Convention calls for the elimination of gender-based discrimination in education, and article 11 seeks equality in employment (including wages).

In addition, as discussed in Section 2.3, the CEDAW comprises a monitoring system which is supposed to increase the compliance of its member states. However, we assume that the process of international delegation in this case is unlikely to have any positive effect if the government of a member country is not seriously committed to promoting gender equality. For example politicians might just be interested in improving their own prestige by means of international cooperation or in gaining the recognition and approval of foreign governments (Vaubel 1986). Thus, in our paper we explicitly measure each member's degree of commitment by applying the method of coding reservations towards international conventions introduced by Landman (2005). In the following section, we will discuss the measurement of commitments in more detail.

3.3. Measuring the Commitments to the CEDAW

As membership of the CEDAW may not automatically generate serious commitment and members are likely to be committed to varying degrees, it is necessary to measure the commitment of each individual member in order to correctly identify possible effects of the utilization of the Convention.

Landman (2005) suggests a coding method based on weighting reservations towards international conventions, which penalizes countries for reservations with respect to important articles. In this paper, we modify this method and include states which signed but did not ratify in our coding systems because signing the Convention already shows some degrees of good will to promote gender equality. Furthermore, most countries sign the Convention but wait for some time before ratifying it in order to prepare domestic settings in accordance to the standards suggested by the Convention.

The degrees of commitment to the CEDAW applied in this analysis are as follows:

0: No signature

1: Signed but not ratified

2: Ratified with reservations towards at least one of the two core articles

3: Ratified with reservations towards some articles other than the core articles

4: Fully ratified without any reservations

The Committee on the Elimination of Discrimination against Women defines articles 2 and 16 as the two core articles fundamental to the aims of the CEDAW, although it is still possible to be a member of the convention with reservations towards these articles in place.

Article 2 calls on all member countries to condemn gender-based discrimination and to immediately adopt the necessary policy measures to end it. Especially this article requires the introduction of the equality of men and women into national constitutions, the ban of discrimination towards women by means of creating appropriate domestic legislation⁵ as well as an improved legal protection of women's rights by public institutions.

Article 16 on the other hand particularly aims at the abolishment of inequalities relating to marriage and its dissolution and to family relations including rights and responsibilities with respect to parenthood. Also, this article aims at granting women comprehensive rights concerning ownership and acquisition of property independent of their marital status.

As Landman (2005) suggests, we double the scale of 0-4 in order to reward countries without reservations and therefore our final scale ranges from 0 to 8.

⁵ Provisions that include penalties are explicitly mentioned.

3.4. Estimation Strategies

We employ a panel analysis with 138 countries from 1984 to 2005. The basic equation we use for our estimation is given as below.

$$y_{it} = \alpha + \beta_1 \text{CEDAW}_{it} + \beta_2 \text{Policy}_{it} + \beta_3 \text{TradeOpen}_{it} + \beta_4 \text{LogInfl}_{it} + \beta_5 \text{GovCons}_{it} + \delta_j \text{country} + \gamma_l \text{time} + \epsilon_{it}$$

where y_{it} represents annual growth rates of GDP per capita in a country, standing for the economic growth of a country, and CEDAW_{it} , our strategic variable, represents the scaled commitments to the Convention (scale: 0-8).

Control variables are policy quality, trade openness, inflation rates (log) and general government consumption⁶, as suggested in many influential studies on economic growth (Collier and Dollar 2002; Hansen and Tarp 2001; Burnside and Dollar 2000). We control for policy quality employing the index of political risk provided by the International Country Risk Guide (ICRG) published by the PRS group. The index of political risks consists of 13 variables measuring institutional quality related to the development of a country. Some other studies on international delegation – for instance, Dreher and Voigt 2008 – include the interaction term between policy quality and the strategic variable – e.g. membership of international organizations – in their estimation. However, we exclude this interaction component between the commitments to the CEDAW and policy quality because our hypothesized mechanism proposes the linkage the CEDAW and economic growth through gender equality instead of general policy quality such as law and order and bureaucracy.

Trade openness is measured as the sum of exports and imports normalized by GDP. For inflation rates, we use the conventionally suggested GDP deflator (log). General government consumption is measured as percentage the government consumption takes part in GDP. Country and time (periods: 1984-1990; 1991-2000; 2001-2005) effects are also controlled.

The commitments to the CEDAW are first measured in the present term, t . The justification for using the present term is that many countries already implement preparatory measures such as legal adjustments several years before ratifying the Convention in order to meet its standards. Thus, we expect the effects of the commitments to arise when a country actually ratifies the Convention. In order

⁶ Descriptions of the variables used throughout the estimations are provided in Appendix 1.

to double-check for the effects of commitment to the CEDAW, a one-year lag variable (time t-1) is also used for testing:

$$y_{it} = \alpha + \beta_1 \text{CEDAW}_{it-1} + \beta_2 \text{Policy}_{it} + \beta_3 \text{TradeOpen}_{it} + \beta_4 \text{LogInfl}_{it} + \beta_5 \text{GovCons}_{it} + \delta_j \text{country} + \gamma_l \text{time} + \varepsilon_{it}$$

4. Results

4.1. Testing Hypothesis 1: Does International Delegation of Gender Policy Increase Economic Growth?

Table 1 summarizes the testing results on the first hypothesis. We employed OLS method with fixed effects given the results of Hausman test. The results of testing 138 countries show that the effects of commitments to the CEDAW at present are statistically insignificant. This result is identical when we apply the one year-lag variable, CEDAW_{it-1} . The lag effects of commitments to the CEDAW are not significant even at 50% level⁷.

We further checked the validity of this result with the sub-group of 108 non-OECD countries because developed countries may have already established institutions favorable to women and therefore effects of commitments to the CEDAW could be trivial.

Table 2 shows the testing results with the non-OECD countries. Neither CEDAW_{it} nor CEDAW_{it-1} is statistically significant, the identical conclusion to the results with 138 countries.

As above, we do not find any statistically significant evidence supporting the hypothesis 1 of effects of commitments to the CEDAW on economic growth. There are a few possible explanations on this finding. First, there might be no real effects of such an international convention on either gender equality or economic growth, as international conventions may be merely a diplomatic instrument. Secondly, as women's status in many countries has been gradually improved and commitments to the CEDAW, a universally recognized convention for the last thirty years, may not create additional effects. Thirdly, as the effects of commitments to the CEDAW on economic growth are generated through its effects on gender equality, it may take a long time to seize any visible impact of the CEDAW on economic growth and thus it is not captured by our testing. Fourthly, it might be the case that gender equality does not necessarily generate economic growth at least in foreseeable future.

⁷ We also applied a two-year lag variable, CEDAW_{it-2} , to double-check the lagged effects, but did not find any statistical differences.

In this paper, we take the first three possibilities into account, as the last explanation requires another type of research beyond international delegation. Concerning the first and second points, we further check them by testing hypothesis 2. We argue that, although the CEDAW may not promote significant effects in general, certain countries where the pursuit of gender equality is particularly challenged and, in parallel, women's status is low, the international delegation of gender policy could have greater effects in improving gender equality. Regarding the third point that the effects of the CEDAW on economic growth may require longer time, we first reject this argument with caution, as we do not find any statistical differences in testing with the present value of commitments to the CEDAW and lag values. However, this argument may need to have further checked with higher lag variables and we will discuss this issue in Section 5.

4.2. Testing Hypothesis 2: Do the Effects of International Delegation on Economic Growth are Greater in More Conservative Societies

As discussed above, we test if commitments to the CEDAW have any significant effects on economic growth in more conservative society where gender inequality is severer and gender policy pursuing improvement of women confronts stronger resistance. We proxy Muslim majority countries – where more than 50% of the total populations are Muslims – as 'conservative society'. The reason for this proxy is that most Muslim countries are ranked low in existing measurement on gender equality such as the OECD Social Institution and Gender Index (SIGI)⁸ and the UNDP Gender Development Index.

In our datasets, 37 countries out of 138 countries are categorized as 'Muslim majority countries'. We use OLS with fixed effects as above. The testing results show positive effects of commitments to the CEDAW on economic growth. When we employ the current value of commitments to the CEDAW, $CEDAW_{it}$, one additional commitment increases economic growth by 0.334 and it is significant at 5% level. One year lag-value, $CEDAW_{it-1}$ is also moderately significant at 10% level with a higher coefficient 0.48.

The OLS testing results confirm that there exist statistically significant effects of commitments to the CEDAW on economic growth in Muslim majority countries, our proxy to 'more conservative society', in contrast to no effects in all other countries.

⁸ For instance, among the 12 lowest ranked countries in SIGI Index, 11 countries are Muslim-majority countries (except India).

However, the OLS test does not necessarily confirm causality between the independent variable, commitments to the CEDAW, and the dependent variable, annual growth rates of GDP per capita. In the following section, we address the possible endogeneity problem that countries with high economic growth may more likely commit to the CEDAW.

4.3. Robustness Check

To tackle the possible endogeneity problems, we employ the instrumental variable method. Our instruments for commitments to the CEDAW are commitments to other conventions, which are not directly related to economic growth. Our justifications are that, if a country commits to one international convention, it is also likely to have membership of another convention, and thus covariance between the instrumented variable and the instrumental variables is expected to be non-zero.

We select two international conventions as our instruments: the International Convention against Apartheid in Sports (since 1988, 72 signatories and 60 parties) and the Second Optional Protocol to the International Covenant on Civil and Political Rights, aiming at the Abolition of the Death Penalty (since 1991, 35 signatories and 70 parties). The validity of the instrumental variables, including the possible endogeneity problem, is checked and confirmed through 2SLS regression and test of overidentifying restrictions. Commitments to the two conventions are measured as: 0 with no signature; 1 with signature; 2 with ratification with reservations; and 3 with full ratification. As in the case of the CEDAW, the measured scales are doubled in order to reward full ratification and the final scales of these two conventions are from 0 to 6.

Table 4 and 5 show the testing results of all countries and non-OECD countries, respectively. The results basically confirm the findings of the OLS testing that there is no statistically significant effect of the CEDAW on annual growth rates of GDP per capita in all countries and non-OECD countries.

Table 6 shows the testing results of 37 muslim countries, supporting the previous finding of positive effects of the CEDAW on economic growth.

5. Concluding Remark: Further Issues and Discussions

We hypothesized the positive linkage and causality between the international delegation of gender policy and economic growth. Our testing results show that there are statistically significant positive

effects of international delegation of gender policy, proxied with commitments to the CEDAW, on economic growth in conservative societies – proxied with muslim majority countries – where domestic gender policy is more likely challenged. However, we couldn't find a significant effect in other countries including developing countries. Our findings are robust against possible endogeneity problems and choices of different strategic variables – present and lag values of commitments to the CEDAW.

There are a few further issues to be checked in our studies. We constructed the linkage between commitments to the CEDAW and economic growth through improvement in gender equality (see Figure 1 in Section 3.1). This linkage needs to be more specified in order to answer which areas of women's status – e.g. education, social institution, employment and political empowerment – the CEDAW channels to improve and how they contribute to economic growth. To address this question, interaction between commitments to the CEDAW and appropriate measurements in women's economic, social and political status is worthwhile investigating.

In addition, as mentioned in Section 4.1, possible long-term effects of commitments to the CEDAW on economic growth, which are not captured by present or short-term lag effects, should be double-checked with time series approaches.

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Table 1. Effects of the CEDAW in All Countries (OLS, Panel Regression, Fixed Effects)

Dependent Variable: Annual growth rate of GDP per capita

	(1)	(2)
	CEDAW (t)	CEDAW (t-1)
	Coef./Se	Coef./Se
CEDAW	0.03527 (0.0555674)	0.0155895 (0.0558737)
Policy	0.0609493 (0.012692)***	0.056373 (0.0131603)***
TradeOpen	0.0376189 (0.0062343)***	0.0367801 (0.0065098)***
LogInfl	-0.7430842 (0.0891416)***	-0.7465186 (0.0911921)***
GovCon	-0.2977084 (0.0315158)***	-0.3057609 (0.032662)***
Constant	1.945572 (1.072346)*	2.394077 (1.114609)**
Observations	2,368	2,284
Number of countries	138	138
R-sq (within)	0.1121	0.1095

Note:

All regressions include fixed country and time (period 1984-1990; 1991-2000; 2001-2005) dummies.

* significant at 10% level; ** significant at 5% level; *** significant at 1% level

Table 2. Effects of the CEDAW in non-OECD Countries (OLS, Panel Regression, Fixed Effects)

Dependent Variable: Annual growth rate of GDP per capita

	(1)	(2)
	CEDAW (t)	CEDAW (t-1)
	Coef./Se	Coef./Se
CEDAW	0.0805967 (0.0697628)	0.0356432 (0.0698611)
Policy	0.0381284 (0.0155629)**	0.0362165 (0.0159893)**
TradeOpen	0.0367088 (0.0077537)***	0.0352959 (0.0081454)***
LogInfl	-0.7270737 (0.105527)***	-0.7240295 (0.1078952)***
GovCon	-.2739783 (0.0363463)***	-0.2784224 (0.0375813)***
Constant	1.887907 (1.178364)	2.217151 (1.225085)*
Observations	1,741	1,682
Number of countries	108	108
R-sq (within)	0.1088	0.1054

Note:

All regressions include fixed country and time (period 1984-1990; 1991-2000; 2001-2005) dummies.

* significant at 10% level; ** significant at 5% level; *** significant at 1% level

Table 3. Effects of the CEDAW in Muslim Countries (OLS, Panel Regression, Fixed Effects)

Dependent Variable: Annual growth rate of GDP per capita

	(1)	(2)
	CEDAW (t)	CEDAW (t-1)
	Coef./Se	Coef./Se
CEDAW	0.3367733 (0.1380216) **	0.4784903 (0.2743634)*
Policy	0.0666823 (0.0302996) **	0.0660332 (0.0310282)**
TradeOpen	0.026569 (0.0163371)	0.0232152 (0.01725)
LogInfl	-0.3382758 (0.2317209)	-0.2920691 (0.2381197)
GovCon	-0.183348 (0.0863705)**	-0.1847916 (0.0888326)**
Constant	-2.075443 (2.439994)	-1.784604 (2.518258)
Observations	598	579
Number of countries	37	37
R-sq (within)	0.0779	0.0688

Note:

All regressions include fixed country and time (period 1984-1990; 1991-2000; 2001-2005) dummies.

* significant at 10% level; ** significant at 5% level; *** significant at 1% level

Table 4. Effects of the CEDAW in All Countries

(Instrumental Variables 2SLS Regression for Robustness)

Dependent Variable: Annual growth rate of GDP per capita

	(1)	(2)
	CEDAW (t)	CEDAW (t-1)
	Coef. / Se	Coef./Se
CEDAW	-0.1448532(0.2084291)	-0.1117975 (0.1946097)
Policy	0.0412448 (0.0130349)**	0.037699 (0.0122855)**
TradeOpen	0.0115701 (0.0024823)***	0.0115435 (0.0024645)***
LogInfl	-0.5540855 (0.0877307)***	-0.5481199 (0.0870725)***
GovCon	-0.0870576 (0.0236389)***	-0.0853198 (0.023559)***
Observations	1,821	1,819
Number of countries	138	138

Note:

Instrumented: CEDAW

Instruments: Death (iv), Sport (iv), Policy, TradeOpen, LogInfl, GovCon, Period, IntialGDPpc, EastAsia, SubSaharanAfrica

Coefficients of periods, initial GDP p.c., and regional dummies (East Asia, Sub-Saharan Africa) are not reported here but can be obtained from the authors.

* significant at 10% level; ** significant at 5% level; *** significant at 1% level

Table 5. Effects of the CEDAW in non-OECD Countries

(Instrumental Variables 2SLS Regression for Robustness)

Dependent Variable: Annual growth rate of GDP per capita

	(1)	(2)
	CEDAW (t)	CEDAW (t-1)
	Coef./Se	Coef./Se
CEDAW	0.0734721 (0.3041572)	0.0848688 (0.2848461)
Policy	0.0482042 (0.0134102)***	0.0457418 (0.0133702)***
TradeOpen	0.0070541 (0.0046905)	0.0070727 (0.0045698)
LogInfl	-0.6109823 (0.1140269)***	-0.602601 (0.11272)
GovCon	-0.0650767 (0.0364032)*	-0.0639 (0.0357519)*
Observations	1,355	1,353
Number of countries	108	108

Note:

Instrumented: CEDAW

Instruments: Death (iv), Sport (iv), Policy, TradeOpen, LogInfl, GovCon, Period, IntialGDPpc, EastAsia, SubSaharanAfrica

Coefficients of periods, initial GDP p.c., and regional dummies (East Asia, Sub-Saharan Africa) are not reported here but can be obtained from the authors.

* significant at 10% level; ** significant at 5% level; *** significant at 1% level

Table 6. Effects of the CEDAW in Muslim Countries

(Instrumental Variables 2SLS Regression for Robustness)

Dependent Variable: Annual growth rate of GDP per capita

	(1)	(2)
	CEDAW (t)	CEDAW (t-1)
	Coef./Se	Coef./Se
CEDAW	0.7783495 (0.4223972)*	0.8210413 (0.4127711)**
Policy	-0.0261264 (0.0281485)	-0.0266654 (0.0277536)
TradeOpen	0.0130246 (0.0074178)*	0.0139473 (0.0075164)*
LogInfl	-0.1464153 (0.2111486)	-0.1030829 (0.2143971)
GovCon	-0.0527495 (0.054126)	-0.0496189 (0.0544972)
Observations	467	466
Number of countries	37	37

Note:

Instrumented: CEDAW

Instruments: Death (iv), Sport (iv), Policy, TradeOpen, LogInfl, GovCon, Period, IntialGDPpc, EastAsia, SubSaharanAfrica

Coefficients of periods, initial GDP p.c., and regional dummies (East Asia, Sub-Saharan Africa) are not reported here but can be obtained from the authors.

* significant at 10% level; ** significant at 5% level; *** significant at 1% level

Appendix 1: Sources and Definitions of Variables

Variable	Definition	Source
Annual growth rates of GDP per capita (annual %)	Annual percentage growth rates of GDP per capita based on constant local currency.	World Bank, World Development Indicators (2008)
Government Consumption (% of GDP)	General government final consumption expenditure (formerly general government consumption) includes all government current expenditures for purchases of goods and services (including compensation of employees).	World Bank, World Development Indicators (2008)
Log Inflation (GDP deflator, annual %)	Logarithm of inflation as measured by the annual growth rate of the GDP implicit deflator, showing price change in the economy as a whole. The GDP implicit deflator is the ratio of GDP in current local currency to GDP in constant local currency.	World Bank, World Development Indicators (2008)
Policy Quality	Composite index of annual political risk calculated as the average of the 13 sub-indices: bureaucracy quality; corruption; democratic accountability; ethnic tensions; external conflict; government stability; internal conflict; investment profile; law & order; military in politics; religious tensions; socioeconomic conditions; and political risk rating)	Political Risk Index (ICRG) by the PRS Group (1984-2005)
Trade Openness	Trade openness as represented by the sum of the shares of exports and imports in GDP.	World Bank, World Development Indicators (2008)