Globalization and the empowerment of women: an analysis of spatial dependence via trade and foreign direct investment

Globalization and the Empowerment of Women: An Analysis of Spatial Dependence via Trade and Foreign Direct Investment

Published in:

***World Development*, 39 (7), pp. 1065-1075**

Eric Neumayer

London School of Economics and Political Science, Department of Geography and Environment, Houghton Street, London WC2A 2AE, UK.

Phone: +44-207-9557598. Fax: +44-207-9557412. Email: e.neumayer@lse.ac.uk.

Website: http://personal.lse.ac.uk/neumayer

&

Indra de Soysa

Director, Globalization Research Program

Norwegian University of Science and Technology (NTNU)

7491 Trondheim

Norway

Summary. — This article tests the hypothesis that higher women's economic and social rights in foreign countries with which a country is connected via trade and FDI spill-over into higher rights among the laggards — a phenomenon known as spatial dependence. Analyzing women's rights over the period 1981 to 2007 in a global sample and samples of countries at different stages of economic development, we find consistent evidence for spill-over effects via trade links, with the exception of a sample of low-income countries. We also find some evidence for similar effects via FDI, but only for economic rights and only in middle-income countries.

Key words — women's rights, spatial dependence, diffusion, globalization, trade, FDI

We thank five anonymous referees for many detailed and constructive comments. All errors are ours.

1. INTRODUCTION

The empowerment of women, understood as ensuring that women can fully enjoy the same rights as men and are not discriminated against, is normatively desirable. It is also instrumentally valuable because it promotes economic development if women can flourish and freely develop their full potential as talented and productive workers, mothers, care givers, and often more responsible managers of households than men in many countries (King and Mason, 2001; Sen, 1999; UNIFEM, 2008). Radical sceptics of globalization, among them many feminist writers and non-governmental organizations (NGOs), warn of the 'masculinity' of 'corporate globalization' leading to subjugation of women across the world (Chafetz, 1984; Ward, 1984; Shiva, 2005; Enloe, 2007; Klein, 2007). Christa Wichterich (2000: 167), for example, argues that the 'globalized woman is burnt up as a natural fuel: she is the piece-rate worker in export industries (…) the voluntary worker who helps to absorb the shocks of social cutbacks and structural adjustment.' According to this view, globalization may have a particularly pernicious effect on the economic, social, and political life of women as profit-hungry corporations break down communitarian values and interests and breed hardships for the weak, particularly women (Parpart, Shirin & Staudt, 2002; Wichterich, 2000). Of course, there are other voices, equally critical of globalization, but providing a more nuanced view and more rigorous analysis, in which the critique is about how the gender inequalities entrenched and promoted by the exploitative nature of the trans-national capitalist system and the asymmetric bargaining power between (foreign) corporations on the one hand and governments, workers and civil society groups on the other (see, for example, Van Staveren, Elson, Grown & Çağatay (2007) and the many references cited in this edited volume).

Contrarily, there are others who argue that globalization liberates women by providing opportunities through trade and investment, precisely because profit-hungry corporations hire the best workers without adhering to traditional social mores that typically privilege men. They argue that higher standards and better rights will spill-over to laggard countries, not least because of increased opportunities for employment and sensitivity of markets to wishes of the consumers in developed countries (Bhagwati, 2004; Spar, 1998; Spar and Yoffie, 1999). The level of globalization might also determine a country's vulnerability to international pressure for political change. Because of the recent proliferation of global agreements and advocacy networks, governments desiring 'legitimacy and financial capital will want to demonstrate their human rights and democratic credentials' (Htun and Weldon, 2010, p. 212).

This study will systematically address the question of whether trade and investment linkages can diffuse the empowerment of women from high-standard countries to laggards. We also study the effect of general openness to trade and foreign direct investment (FDI), understood as the extent of a country's integration into the global economy, even if this is not the central focus of our argument and analysis. Equally important is clarity about what we do not analyze, namely the effects of certain policies such as capital account liberalization, trade liberalization, investment incentives etc. often associated with globalization. In other words, we analyze the effect of factual globalization and not policies often associated with being open to global processes. Similarly, while trade and FDI are two central aspects of globalization, we acknowledge that globalization has many other features (such as migration and the illegal trafficking of people, for example) not addressed in our analysis.

Existing studies have typically analyzed the effect of general trade openness and foreign direct investment (FDI) on women's empowerment, but they do not distinguish with whom a country transacts. Moreover, while some studies address a broad array of measures of women's rights, women's status and material outcomes (see, for example, Elson, 1999, Benería, 2003; Seguino, 2006, Van Staveren, Elson, Grown & Çağatay, 2007), many studies only cover the employment ratio of women and the gender wage gap (Fontana, Joekes & Masika, 1998; Tzannatos, 1999; Artecona & Cunningham, 2002; Denis, 2003; Black & Brainerd, 2004; Berik et al. 2004; Braunstein & Brenner, 2007; Oostendoorp, 2009; Villarreal & Yu, 2007). As some argue, increased employment and higher wages do not amount to empowerment if exploitation and abuse accompany these positives (Çağatay & Ertürk, 2004; Elson, 1999; Fontana & Wood, 2000; Morrisson & Jütting, 2005; Standing, 1999) and while globalization may increase female employment and earnings in some countries, it may well reduce them in others (Kucera & Milberg, 2000).

Our research therefore departs from previous studies in two important ways. First, we employ broader measures of women's rights that include both economic *and* social rights, such as marriage and divorce rights, the right of movement, the right to property, the right to participate in social activities, the right to education, the right to inherit etc. Together, women's economic and social rights are a better gauge of female empowerment than simple measures of the wage-gap and employment ratios (Moghadam, 2007). We use data from Cingranelli and Richards (2009) covering the period 1981 to 2007 that largely measure the fulfilment of these rights in practice rather than their mere existence in legal documents alone. Secondly, we examine whether it matters with whom one trades and receives FDI from, whereas existing studies have examined general openness to trade and FDI. For example, if a country

mainly trades with and receives FDI from countries that violate rights, we would not expect domestic rights to flourish, an argument often made about African trade with China (Taylor, 2006). Given the many arguments around the issue of globalization that focus on spill-over via transnational linkages, such effects should be explicitly modelled to test these arguments (see, similarly, Greenhill, Mosley & Prakash (2009) on trade-based diffusion of general labour rights).

2. SPATIAL DEPENDENCE IN WOMEN'S ECONOMIC AND SOCIAL RIGHTS

Much of the literature on globalization and gender rights is critical of globalization's effects on women. This is generally consistent with many of the views expressed by NGOs and other parts of civil society that similarly see globalization as something to be resisted because, amongst other things, it dis-empowers women at the hands of the patriarchy and authority of male-dominated global capital. Sceptics of globalization see the trade and FDI links as exploitative, leading to the lowering of standards due to the profit motives of globalized capital via a race to the bottom, or at least leading to a reluctance of the laggards to raise standards (the 'regulatory chill' thesis) (see the discussion and references cited in Mosley & Uno, 2007). Underlying such predictions is the oft-made assumption that enhanced women's economic and social rights would add to production costs and thus decrease a country's competitiveness in globalized markets, providing an economic incentive for lagging countries to oppose tightening (see, for example, Wichterich, 2000; Elias, 2004; Shiva, 2005; Enloe, 2007; Klein, 2007).

Yet, this literature has recently come under criticism for missing the multifaceted ways in which women are affected by globalization; interestingly, some of this criticism is raised by scholars and writers very sympathetic to women's causes

(Davids & Van Driel, 2005; Lenz, Ullrich & Fersch 2007; Young, 2001). As some have written, 'globalization cannot be viewed only as a nightmare scenario (…) one has to recall that the reconfiguration of the Fordist gender order also offers an opportunity for women to develop new strategies to achieve gender equality on a global scale' (Young, 2001, p. 46–47). These arguments critical of the globalization critics are based on the observation that women are not mere passive receivers of hardship but are active agents that navigate social, economic and political life and to whom globalization offers new opportunities for challenging existing injustices. Such arguments are reminiscent of earlier arguments about the spread of modernization that allows women a greater part in the social, political and economic lives of societies. Modernization theorists would argue that greater contact between backward countries and more modern economies are likely to raise women's rights in the backward countries since forces of modernization threaten patriarchy and the discrimination against women (Donno and Russett, 2004).

Globalization optimists thus submit that openness to trade and FDI promote women's rights by increasing the opportunities for women to challenge traditional ways, partly due to the advance of modernization. Yet, what should matter more than openness per se is the fact that trade and FDI link countries with high standards to those that have lower standards, which could trigger processes of diffusion from the high-standard to the low-standard countries. The phenomenon where policies, standards or similar choices of one unit of analysis depend on the choices of other units of analysis is commonly known as spatial dependence and the hypothesis tested in this article is of spatial dependence in women's economic and social rights working via trade and FDI effects. Specifically, it is suggested that the incentive to raise

women's rights is stronger where, firstly, major trading partners and, secondly, the major source countries for FDI themselves provide strong rights.

From a theoretical perspective, spatial dependence can result from coercion, competition, externalities, learning or emulation (Simmons & Elkins, 2004). In other words, units of analysis, call them agents, change their behavior because others pressurize them to (Levi-Faur, 2005), because they need to find a competitive advantage (Basinger & Hallerberg, 2004), because the strategies carried out by other agents affect the payoffs they generate from their own behavior (Genschel & Plümper, 1997), because agents learn that other strategies proved to be more successful (Mooney, 2001; Meseguer, 2005), or because they want to mimic the behavior of others (Weyland, 2005).

For the case of spatial dependence in women's economic and social rights working via trade and FDI links, strict coercion is unlikely to be a prominent channel of diffusion, even though the US and the European Union (EU) seem to have become more inclined recently to make improvements in general labor rights, which could have indirect advantages for women, a precondition for granting increased access to their domestic markets. Persuasion and pressure are more likely candidates than strict coercion, however. In an increasingly mobile world, advocacy networks provide transparency and information to consumers, creating greater awareness, not least because Western advocacy networks act as watchdogs who tie up with similar networks across the globe (Keck & Sikkink, 1998; Slaughter, 2004). The global women's movement plays an important role as it connects groups from different countries, allowing them to learn from and draw strength from each other as well as to monitor the state of women worldwide and exert pressure for improvements (Naples & Desai, 2002). Since globalized companies are likely to value their brand names

more than local enterprises, these companies will be more sensitive to image (Fung, O'Rourke & Sabel, 2001). Multinational corporations are increasingly pressured by Corporate Social Responsibility (CSR) codes into conforming to norms and values of consumers. Hence, investors and sub-contractors from foreign source countries in which women's rights are protected might be prone to employ and push for similar rights for women in the countries in which they invest or sub-contract, such that countries which receive most of their FDI from foreign countries in which women's rights are high or export most of their goods and services to these countries should experience upward pressure on their domestic standards.

Competition and externalities are also likely reasons for spatial dependence in addition to persuasion and pressure. Thus, countries, which export most of their goods and services to foreign markets, in which women's rights are high, or receive most of their FDI from these countries, might find it more difficult to treat women badly as this creates negative externalities on consumers and possibly also investors abroad who react adversely to such behavior. Vulnerability to global pressure is an important aspect of trying to understand why the application of women's rights has occurred among diverse countries (democracies and autocracies, rich and poor etc.). More globalized countries naturally are likely to be more, not less vulnerable to such pressure, particularly from global advocacy networks that name and shame governments and multinational corporations (Htun & Weldon, 2010; Spar, 1998). Yet, it is also likely that suppressing women's rights will lead to lower bargaining power of female employees and thus to lower labor costs, which all other things equal will be attractive to foreign investors and can spur exports, as Seguino (2000a, 2000b) argues. Therefore, with two opposing effects operating simultaneously, whether

improved women's rights can provide countries with a competitive advantage rather than a disadvantage is essentially an empirical question.

Finally, globalization optimists also believe that emulation and learning effects can lead to the transfer of best practices in women's rights to other countries. Links created by globalization can spur the spread of norms, rights and values associated with a modern and liberal economy and society from private actors in high-standard to private actors in low-standard countries (Held & McGrew, 2002). In addition, we should see the diffusion of public policies adopted in developed countries, where women's rights are typically higher, to developing countries where such rights are typically lower or missing (Simmons & Elkins, 2004). While emulation and learning effects will not exclusively stem from one's trading and foreign investment partners, of course, such effects depend on cues for normatively desirable behavior. Such cues are likely to come, at least in part, from foreign trading partners and foreign investors, which provide direct personal contact and thus afford a direct contrast to and comparison with domestic standards. There is a large amount of harmonization of standards in the legal sphere and globalized markets could encourage the upward harmonization of institutional and regulatory arrangements (Sachs & Warner, 1995). The elimination of discrimination against women is the explicit objective of ILO's 'Equal Renumeration Convention' (No. 100) from 1951 and is covered in other agreements with more general remits such as the 'Discrimination (Employment and Occupation) Convention' (No. 111) from 1958. While these treaties are old and precede the recent wave of globalization, the ILO's 'Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy' from 1977 (revised in 1991 and 2001), and the United Nations' 'Global Compact' corporate social responsibility standard from 2001 (see Lozano & Boni, 2002) fall into this

period and also cover women's rights. In sum, why globalization matters can be understood as the combination of self-interest of economic actors, incentives for harmonization, the diffusion of best practices, the harmonization of legal standards, and the active mobilization for improved rights by civil society actors and women groups in particular (both local and foreign and linked via the global women's movement), all converging to pressure change.

Globalization is likely to have a more direct effect on female empowerment through economic rights than social rights. This is not least because men have more to gain from women achieving higher economic rights compared to women gaining higher social rights. While discrimination against women will always benefit at least some men and thus create entrenched interests in perpetuating such discrimination as a form of rent-seeking (Braunstein, 2008), gender discrimination is also inefficient and costly on the macro-level because productive capacity is not maximized. Restricting women's economic rights is likely to be more costly in economic terms to men than restricting women's social rights.

However, there are good reasons why social rights are also affected by globalization. First, the fulfilment of some social rights is a prerequisite for achieving economic rights. For example, the economic rights of free choice of profession and equality in hiring and promotion practices requires women's right to an education, the freedom to choose a residence/domicile and even the freedom to travel, marry whom they want, obtain a passport, and inherit property. Second, economic and social rights tend to be strongly correlated (at $r = .72$ in our sample) because women's rights can only be comprehensively achieved if both economic and social rights are fulfilled.[1] Access to equal social rights in turn allows women greater voice and participation in economic and political realms. Another reason for the positive correlation between the

two types of rights is that improved women's economic rights is likely to lead to greater bargaining power and thus greater economic power of women, which enables them to press for improved social rights. Women are active agents of social change, not merely passive recipients of governmental policies and they will not be content with improved economic rights without concurrent improvements in social rights. The same forces that promote women's economic rights are therefore likely to have a positive impact on social rights as well.

3. EMPIRICAL RESEARCH DESIGN

(a) Dependent variables

The measures of women's economic and social rights are taken from Cingranelli and Richards' (2009) Human Rights Database. These data are also utilized by specialized agencies monitoring the progress of women (UNIFEM, 2008). While it is impossible to assess the validity of the codings given there is no equally comprehensive competing dataset and it is impossible to know the true state of women's rights across the world, it is encouraging to note that Cingranelli and Richards (2009) provide their coders with very detailed information on how to code the rights, on where to find definitions on potentially unfamiliar terms, and on how to code with limited information available. They also provide coders with detailed narratives in justification for how selected country year examples should be coded. Moreover, each data point is coded by two trained coders for purposes of quality control and the inter-coder reliability statistics is very high, as described in Cingranelli and Richards (2010). Table 1 lists the economic and social rights covered in the database.

< Table 1 around here >

Note that the economic rights almost exlusively refer to employee rights, while social rights include two rights (the right to equal inheritance and the right to own, acquire, manage, and retain property brought into marriage) that might be considered an economic rather than a social right. Cingranelli and Richards (2009) code women's rights on an ordinal scale from 0 to 3 in the following manner:

(0) There are no economic (social) rights for women under law and systematic discrimination based on sex may be built into the law. The government tolerates a high level of discrimination against women.

(1) There are some economic (social) rights for women under law. However, in practice, the government DOES NOT enforce the laws effectively or enforcement of laws is weak. The government tolerates a moderate level of discrimination against women.

(2) There are some economic (social) rights for women under law. In practice, the government DOES enforce these laws effectively. However, the government still tolerates a low level of discrimination against women.

(3) All or nearly all of women's economic (social) rights are guaranteed by law. In practice, the government fully and vigorously enforces these laws. The government tolerates none or almost no discrimination against women

The data are coded on the basis of the United States State Department's *Country Reports on Human Rights Practices,* which contain information on how women are treated in every country. They do not merely rely on rights in formal laws since rights on the books may not match rights in practice. However, UNIFEM (2008) reports that a measure of gender empowerment (GEM) index constructed with the Cingranelli and

Richards data corresponds quite closely to a measure of an enabling legal environment for gender empowerment (GEEE). For a detailed description of coding rules and for how ambiguous cases are treated, see Cingranelli and Richards (2008).

(b) Explanatory variables

The main explanatory variables are what is known as spatial lag variables. They capture the dependent variable (i.e. women's rights) in foreign countries, weighted by some link function connecting each country to its trading partners and the sending countries of FDI. For the purpose of the analysis here, the weighting matrix measures bilateral trade between foreign countries *k* and domestic country *i* as well as, in separate spatial lag variables, FDI stocks of countries *k* in country *i*. The weighting-matrix is row-standardized.[2] This is regarded as common practice (Plümper and Neumayer, 2010), but it is also justified here since we are interested merely in the identity of foreign trade and investment partners, while the extent of general trade and FDI openness are measured by separate variables. With row-standardization, the spatial lag variables represent the weighted average of the dependent variable in foreign countries, where the weights are the share that foreign countries have in the trade and inward FDI stock of the country under observation. Formally, the spatial lag variables are defined as $\sum_k w^{trade}{}_{ikt-1} y_{kt-1}$ and $\sum_k w^{FDI}{}_{ikt-1} y_{kt-1}$ with bilateral trade and inward FDI stocks as the respective connectivity variables between country *i* and foreign countries *k*. Having defined these formally, we will label these variables as trade- and FDI-weighted spatial lag variables, respectively, in the tables.

Spatial patterns in women's rights do not need to be caused by spatial dependence. Instead, these patterns might be caused by spatial correlation in other factors influencing or stimulating the dependent variable. Observable as well as

unobservable phenomena such as cultures and customs, preferences and perceptions, constitutions and institutions, and so on are typically spatially clustered, which leads to spatial patterns in the dependent variable, even in the absence of spatial dependence. Morrisson and Jütting (2005) show that there are important regional differences with respect to social institutions reflecting long-standing norms, customs and traditions, such as genital mutilation and dress codes, marriage, parenting, inheritance, ownership and movement rights. Even within regions, there can be important differences across countries. Ross (2008) argues that women in oil-rich countries are systematically disadvantaged because of a lack of industrialization and modernization.

Distinguishing such spatial clustering or unobserved spatial heterogeneity from spatial dependence is a problem commonly known as Galton's (1889) problem. If spatial clustering is not adequately modeled, then a spatial analysis will spuriously suggest spatial dependence. In other words, the challenge is to identify the true spatial effect. Identification rests on the assumption that all the spatial pattern of the dependent variable that has nothing to do with spatial dependence itself is fully explained by the independent variables other than the spatial lag. This is a strong assumption, and if it does not hold, then the estimated coefficients for the spatial effects are likely to be biased.

A popular method for mitigating the problem created by spatial clustering is the inclusion of country fixed effects. Such models take out all of the between variation in the data and are estimated based on the within variation of the data in each observational unit only. This reduces bias because any spatial clustering or unobserved spatial heterogeneity in *levels* of women's rights is fully captured by the fixed effects. However, the inclusion of fixed effects not only makes the estimates

less efficient, but in our specific research context, where we use ordered logit for estimating models with a categorical dependent variable, there is no fixed-effects estimator (more on this below).

Another problem of spatial analysis in cross-sectional time-series analysis is the problem of common shocks and common trends, such as a general increase in awareness of women's rights over time, possibly following from the UN decade for women (1976-1985) or the World Conferences on Women. We control for this by including year-specific time fixed effects, i.e. separate intercepts for each year of the period of study, as well as the temporally lagged dependent variable. Note, however, that the sample means of women's economic and social rights are almost constant over the study period. In other words, while rights have improved in some countries, they have deteriorated in others and on average they have not changed much over time.

As control variables, we include general trade openness measured as the ratio of the sum of exports and imports to GDP (*trade/GDP*) taken from the World Bank (2009), general openness to FDI measured as the value of the total stock of inward FDI relative to GDP (*FDI/GDP*) taken from UNCTAD (2009),[3] the natural log of per capita income (*lnGDPpc*) in constant US$ of 2000 at market exchange rates taken from World Bank (2009), and the *polity2* variable from the Polity IV data as a measure of democracy (*democracy*), which is taken from Marshall, Jaggers & Gurr. (2006).[4] It would have been preferable to use GDP data in purchasing-power-parity rather than at market exchange rates, but the former has more missing data compared to the latter and we wish to have as large a sample size as possible. The Polity IV project offers the broadest coverage of all democracy indicators. Codings on a 21-point scale from -10 (most autocratic) to 10 (fully democratic) are based on expert

evaluations of the political regime in countries, relying on a fairly comprehensive definition of democracy, which includes electoral rules and various measures of the openness of political institutions and aspects of institutionalized democracy and autocracy.

The inclusion of general trade and FDI openness is important to separate the effect of general openness from the spatial lags. Per capita income is included since more economically developed countries are likely to have higher women's rights (Forsythe, Korzeniewicz and Durrant, 2000; Ross, 2008).[5] Also, in more democratic societies women have a voice as voters, which is likely to translate into better rights for women.

In sum, variants of the following model are estimated:

$$y_{it} = \alpha_i + \beta_1 y_{it-1} + \beta_2 \ln GDPpc_{it} + \beta_3 democracy_{it} + \beta_4 trade/GDP_{it} + \beta_5 FDI/GDP_{it}$$
$$+ \beta_6 \sum_k w^{trade}{}_{ikt-1} y_{kt-1} + \beta_7 \sum_k w^{FDI}{}_{ikt-1} y_{kt-1} + \delta_t + u_{it} \qquad (1)$$

Where i $(\neq k)$ stands for the country under observation, t for time, the control variables are defined as described above and $\sum_k w^{trade}{}_{ikt-1} y_{kt-1}$ and $\sum_k w^{FDI}{}_{ikt-1} y_{kt-1}$ are the, respectively, trade- and FDI-weighted spatial lag variables as defined above, α_i represent country fixed effects (replaced by regional fixed effects in some estimations), δ_t time fixed effects. Note that the spatial lag variables are temporally lagged by one year since it is very unlikely that they could exert a contemporaneous effect. Table 2 provides summary descriptive variable information and table 3 a correlation matrix. Other than women's economic and social rights and their respective trade- or FDI-weighted spatial lag variables, which are highly correlated

with each other, correlations are not particularly high. In particular, the correlation between the trade- and the FDI-weighted spatial lag variables for either set of rights is fairly modest at .26, which suggests that they measure different types of connectivities. In other words, a typical country's trading partner is not simply identical to or close to identical to a typical country's foreign investors and the two spatial lag variables thus truly tap into distinct aspects of globalization.

< Tables 2 and 3 around here >

(c) Estimation Technique

Women's economic and social rights, the dependent variables, are measured as ordered categorical variables, which take on values of zero, one, two or three. Thus, ordered logit or probit are appropriate estimation techniques. Unfortunately, these models cannot estimate country fixed effects.[6] As a compromise, we include regional rather than country fixed effects in ordered logit estimations, with dummy variables following the World Bank's (2009) classification of countries into regions. We start with a model that contains these regional dummy variables and time-specific fixed effects. We then add the lagged dependent variable. Finally, we use a different estimator to include country-specific fixed effects, namely Arrelano and Bover's (1995) system-GMM estimator. This estimator is preferable to a standard fixed effects estimator since it can treat both the lagged dependent variable and the spatial lag variables as endogenous. The inclusion of the temporally lagged dependent variable in a fixed effects model leads to so-called Nickell (1981) bias because the lagged dependent variable will be correlated with the error term. The endogeneity of the spatial lag variable follows from the fact that if foreign countries *k* have an effect on country *i*, then country *i* also has a (small) effect on foreign countries *k*. This is not to

be confused with potential reverse causality, which would occur if domestic women's rights influence the identity of foreign trade and investment partners, thus representing another reason for potential endogeneity.[7] Kukenova and Monteiro (2009) show in Monte Carlo simulations that the system-GMM estimator outperforms other estimators for spatial dynamic panel data models with one or more endogenous variables, which is why we use this estimator. Using too many instruments can bias the GMM estimation results (Roodman, 2007). We have therefore restricted the maximum lag of instruments to eight. For both ordered logit and GMM estimations, standard errors are adjusted for clustering of observations on countries.

4. EMPIRICAL ANALYSIS

(a) Some descriptive case examples

Before reporting results from multivariate regression analysis, we briefly discuss a few descriptive cases. Good examples for the potential positive effect that women's economic rights in a country's major trading and investment partners can have on domestic rights are Brazil, Mexico and Singapore. The average trade-weighted spatial lag variable increased between the first three years and the last three years of our study period in these countries from 1.42 to 1.89, from 1.80 to 2.67 and from 0.97 to 1.51, respectively. Similarly, the values of the FDI-weighted spatial lag variable increased in these countries from 1.79 to 2.20, from 2.04 to 2.49 and from 1.47 to 2.24, respectively. What this means is that women's rights in these countries' trading and FDI partners have increased and/or that these countries switched to trading and FDI partners with higher women's rights in the sense of trading and receiving FDI more from high-standards relative to low-standards countries. At the same time, women's economic rights improved in these countries. In Brazil, women's economic

rights moved from 1 to 2.33, in Mexico they moved from 1 to 2 and in Singapore from 1.33 to 2 on our measure. That is, in all of these countries, the situation for women improved over the study period because governments started to enforce women's economic rights and only tolerated a low level of discrimination against women's economic rights rather than a moderate level of discrimination, as at the start of the period,.

Singapore is also telling as an example, as it goes to show that improvements in women's economic rights need not go hand in hand with women's social rights, which essentially stayed at a low level in this country. In contrast, Brazil and Mexico achieved higher women's social rights in tandem with improved women's economic rights. All three countries experienced increasing values in the trade- and FDI-weighted spatial lag variables for women's social rights as well, similar to the increasing values of these variables for women's economic rights.[8]

The Democratic Republic of Congo (DRC) and Myanmar are good examples where lower values of the spatial lag variables over time, which means lower values of women's rights in a country's major trading and FDI partner and/or a switch of partners toward countries with lower rights, went hand in hand with deteriorating domestic women's economic and social rights. In the DRC, the situation went from 1 to 0 for both rights, while in Myanmar it went from 2 to 0.33 (economic rights) and from 2 to 0 (social rights), that is, basically no rights in either country at the end of the study period. In the case of Myanmar, one may wonder whether the deterioration in women's rights is simply down to the political regime in this country. However, Myanmar was as autocratic at the beginning of the 1980s as it was during the end of our study period. Still, clearly the examples presented in this brief descriptive analysis

are deficient in the sense that they neither control for other, confounding factors nor test for a general trend, which is why we turn to multivariate regression analysis now.

(b) Multivariate regression analysis

Table 4 reports estimation results for women's economic rights for up to 152 countries over the period 1981 to 2007. Models 1 to 3 refer to a sample of all countries, models 4 to 6 to a sample of developing countries. Results from model 1 suggest that women's rights are higher in richer and more democratic as well as in countries more open to trade. Higher rights abroad seem to spill-over both via trade and FDI links into higher domestic rights. However, this result needs to be treated with great care as neither the lagged dependent variable nor country fixed effects are yet included.

< Table 4 around here >

In model 2, we add the temporally lagged dependent variable. The results remain consistent with the ones in model 1. In model 3, country fixed effects are included and the estimator switches from ordered logit to system-GMM. Results are similar to the ordered logit results in terms of the sign of coefficients and their statistical significance, but the spatial lag variable working via FDI links now becomes statistically insignificant. The degree of spatial dependence indicates by 'how much' domestic rights increase for a one unit increase in the spatial lag variable, which due to row-standardization of the weighting matrix is in the same unit as the dependent variable itself. It is roughly .17 in the short run and .35 in the long run. In other words, if women's economic rights in a country's main trade partners were to rise by one point, then this is predicted to raise domestic rights by 0.17 points in the short run and by a bit more than one third of a point in the long run.[9] The latter is

equivalent to about one half of a standard deviation of observed values in women's economic rights, implying that the effect of spatial dependence is not only statistically significantly different from zero, but also substantively important.

Models 4 to 6 repeat the same set of estimations for a sample of developing countries only. Results on the control variables are largely compatible with the ones reported for the full sample. However, the FDI-weighted spatial lag variable is no longer statistically significant. The trade-weighted spatial lag variable remains statistically significant in models 4 and 5, but becomes (marginally) statistically insignificant in the system-GMM estimations. Note that Arellano-Bond tests of autocorrelation in the system-GMM estimations of models 3 and 6 violate the assumption of no second-order autocorrelation required for system-GMM to produce valid results. We therefore re-estimated these models with an assumed first-order moving average error process and including two further temporal lags of the dependent and one further lag of the endogenous spatial lag variables. The (non-reported) results suggest that the first temporal lag of the trade-weighted spatial lag variable has a statistically significant positive effect on women's economic rights in both the full and the developing country only sample. This further corroborates the finding of positive spatial dependence working via trade links.

Table 5 reports results for women's social rights, following the same set of estimations as in table 4. Results vary a bit more depending on the sample and the estimation model chosen, compared with the results on women's economic rights. Higher women's social rights seem to be associated with higher per capita income, but only in the full sample. The same is true for democracy (with only one exception, democracy is insignificant in the developing countries sample). On the whole, countries that are more open to trade in general have higher women's social rights.

Countries that are more open to FDI in general have higher social rights, but with one exception the coefficients of this variable are statistically insignificant for the sample that only contains developing countries. The FDI-weighted spatial lags are statistically significant only in two out of the six models. This suggests that there is no consistent evidence for higher women's social rights abroad spreading via FDI links. In contrast, there is consistent evidence across all model specifications for spill-over effects on social rights via trade links. Comparing models 3 and 6, the degree of spatial dependence is somewhat lower in the sample of developing countries in comparison with the full sample, both in the short-run (.18 compared to .32) and in the long run (.32 compared to .58). What this implies is that developing countries are less affected by spill-over effects in women's social rights than developed countries. A possible explanation is that women's social rights might be more culturally entrenched and thus less amenable to change from the outside in developing countries. For women's social rights, Arellano and Bond tests of autocorrelation did not reject the hypothesis of no second-order autocorrelation required for the system-GMM estimator to produce valid results.

< Table 5 around here >

In table 6, we split up the developing country sample into low- and middle-income countries. Whilst we cannot account for the gender structure of employment in the tradeables sector or in the production processes operated or controlled by foreign investors directly, it is plausible that female employment in these sectors is more relevant in middle-income countries than in low-income countries. If so, spillover effects should be more relevant in middle-income compared to low-income countries.[10] Results reported in table 5 corroborate this hypothesis: there is evidence of spatial dependence in middle-income countries, consistent with the results found

for all countries or for the developing country sample, but no evidence of spatial dependence in low-income countries. Note that for women's economic rights, there is even evidence for spillover effect working via FDI links, suggesting that higher women's economic rights in a country's main foreign investment partners leads to higher domestic rights in middle-income countries.

< Table 6 around here >

5. CONCLUSION

Women's empowerment plays a central role in the development debate. How does globalization affect women's rights? In contrast to others, this article has analyzed this question in two distinct ways. First, we focused on spatial dependence, addressing whether higher women's rights abroad spill-over into higher domestic rights via transnational trade and FDI linkages. Secondly, we employed broad measures of women's rights that included both economic and social rights. The question of whether higher women's economic and social rights among a country's major trade partners and investment sources spill-over into higher domestic levels of such rights is a crucial aspect of the globalization debate.

We found consistent evidence for spill-over effects working via trade links for both sets of rights in all samples but the one restricted to low-income countries only. With one exception, this result was independent of the model specification. We found only weak and limited evidence of spill-over effects via FDI links for women's economic or social rights. Only in middle-income countries do we find consistent evidence for such an effect on women's economic rights, independently of the model specification. Going beyond spatial dependence, we found evidence suggesting that general trade openness is conducive to higher women's economic rights whereas

general FDI openness does not matter, two results which corroborate with updated data and a different estimation strategy results previously reported in Neumayer and de Soysa (2007). General trade openness also seems to promote women's social rights, while general FDI openness appears conducive to such rights, but not in developing countries.

In conclusion, general trade openness as well as spill-over effects working via trade links appear to be aspects of globalization that have a beneficial impact on women's rights.[11] Whether better women's rights in absolute terms translate into higher gender equality in rights is difficult to say given we have no measure of men's economic and social rights. We would, however, point out that, firstly, women's rights are coded in a way as to partly refer to gender equality (e.g., "equal pay for equal work", "equality in hiring and promotion practices", "the right to equal inheritance") and, secondly, because men will invariably enjoy many of the relevant rights already, any absolute improvements for women will typically translate into higher gender equality as well. More questionable is whether improved rights will lead to improved material outcomes for women, which should be a prime objective of future research. The two measures of women's rights are only modestly correlated (below 0.4) with the ratio of female to male earnings and the gender-related human development index (HDI) as a percentage of the overall HDI (data taken from UNDP 2009). Moreover, globalization takes many forms beyond the ones looked at here and it will have many different effects and will affect some people positively whilst others negatively. However, when it comes to fundamental economic and social rights for women, on average the specific forms of globalization looked at here are beneficial rather than harmful to the empowerment of women.

REFERENCES

Arellano, M. & Bover, O. (1995). Another look at the instrumental variable estimation of error-components models. *Journal of Econometrics, 68* (1), 29-51.

Artecona, R. & Cunningham, W. (2002). *Effects of Trade Liberalization on the Gender Wage Gap in Mexico*. Policy Research Report on Gender and Development Working Paper No. 21. Washington, DC: World Bank.

Basinger, S J & Hallerberg, M. 2004. Remodeling the Competition for Capital: How Domestic Politics Erases the Race to the Bottom. *American Political Science Review, 98* (2), 261-276.

Benería, L. (2003). *Gender, Development and Globalization*. New York and London: Routledge.

Berik, G., Rodgers, Y. & Zveglich, J.E. (2004). International Trade and Gender Wage Discrimination: Evidence from East Asia. *Review of Development Economics, 8* (2), 237-254.

Bhagwati, J. (2004). *In Defence of Globalization*. Princeton: Princeton University.

Black, S.E. & Brainerd, E. (2004). Importing Equality? The Impact of Globalization on Gender Discrimination. *Industrial and Labor Relations Review, 57* (4), 540-559.

Boserup, E. (1970). *Women's Role in Economic Development*. New York: St. Martins.

Braunstein, E. (2008). The Feminist Political Economy of the Rent-Seeking Society: An Investigation of Gender Inequality and Economic Growth. *Journal of Economic Issues, 62* (4), 959-979.

Braunstein, E. & Brenner, M. (2007). Foreign direct investment and gendered wages in urban China. *Feminist Economics, 13* (3-4), 213-237.

Busse, M. & Spielmann, C. (2003). *Gender Discrimination and the International Division of Labour*. HWWA Discussion Paper 245. Hamburg: Hamburg Institute of International Economics.

Busse, M. & Spielmann, C. (2006). Gender Inequality and Trade. *Review of International Economics*, *14* (3), 362-379.

Çağatay, N. & Ertürk, K. (2004). *Gender and Globalization: A Macroeconomic Perspective*. Working Paper 19. Geneva: International Labour Office.

Charlton, S.E. (1997). Development as History and Process. In N. Visvanathan, L. Duggan & L. Nisonoff (Eds.), *The Women, Gender, and Development Reader* (pp. 7-13). London: Zed Books.

Chafetz, J.S. (1984). *Sex and Advantage – A Comparative, Macro-Structural Theory of Sex Stratification*. New Jersey: Rowman & Allanheld.

Chow, E.N. (2003). Gender Matters – Studying Globalization and Social Change in the 21st Century. *International Sociology*, *18* (3), 443-460.

Cingranelli, D.L. and D.L. Richards (2009). *Cingranelli and Richards Human Rights Dataset*. http://ciri.binghamton.edu/.

Cingranelli, D.L, and Richards, D.L. (2008). *The Cingranelli-Richards (CIRI) Human Rights Data Project Coding Manual*. http://ciri.binghamton.edu/documentation/ciri_coding_guide.pdf

Cingranelli, D.L & Richards, D.L. (2010). The Cingranelli and Richards (CIRI) Human Rights Data Project. *Human Rights Quarterly*, *32*, 395-418.

Davids, T. & Van Driel, T. (Eds.) (2005). *The Gender Question in Globalization: Changing Perspectives and Practices*. Aldershot: Ashgate.

Denis, A.B. (2003). Globalization, Women and (In)equity in the South – Constraint and Resistance in Barbados. *International Sociology*, *18* (3), 491-512.

Donno, D. & Russett, B. (2004). Islam, Authoritarianism, and Female Empowerment: What Are the Linkages? *World Politics, 56* (4), 582-607.

Elias, J. (2004). *Fashioning Inequality: the Multinational Company and Gendered Employment in a Globalizing World*. Aldershot: Ashgate.

Elson, D. (1999). Labor Markets as Gendered Institutions: Equality, Efficiency and Empowerment Issues. *World Development, 27* (3), 611-627.

Enloe, C.H. (2007). *Globalization and Militarism: Feminists Make the Link.* Lanham, MD: Rowman & Littlefield.

Fontana, M. & Wood, A. (2000). Modeling the Effect of Trade on Women, at Work and at Home. *World Development*, 28 (7), 1173-1190.

Fontana, M., Joekes, S. & Masika, R. (1998). *Global Trade Expansion and Liberalization: Gender Issues and Impacts.* A study prepared for the Department for International Development (DFID). Brighton: University of Sussex, Institute of Development Studies.

Forsythe, N., Korzeniewicz, R.P. & Durrant, V. (2000). Gender Inequalities and Economic Growth: A Longitudinal Evaluation. *Economic Development and Cultural Change, 48* (3), 573-617.

Fung, A., ORourke, D. & Sabel, C. (2001). Realizing Labor Standards: How Transparency, Competition, and Sanctions Could Improve Working Conditions Worldwide. *Boston Review, 26* (1) (http://bostonreview.net/BR26.1/fung.html)

Galton, F. (1889). Discussion on Edward B. Tylors On a Method of Investigating the Development of Institutions, Applied to Laws of Marriage and Descent. *Journal of the Anthropological Institute of Great Britain and Ireland, 18,* 270-272.

Genschel, P. & Plümper, T. (1997). Regulatory competition and international cooperation. *Journal of European Public Policy, 4* (4), 626-642.

Greenhill, B., Mosley, L. & Prakash, A. (2009). Trade-based Diffusion of Labor Rights: A Panel Study, 1986-2002. *American Political Science Review*, *103* (4), 669-690.

Held, D. & McGrew, A. (2002). *Globalization/Antiglobalization*. Cambridge: Polity.

Htun, M. (2002). Puzzles of Women's Rights in Brazil. *Social Research, 69* (3), 733-751.

Htun, M., & Weldon, S.L. (2010). When Do Governments Promote Women's Rights? A Framework for the Comparative Analysis of Sex Equity Policy. *Perspectives on Politics, 8* (1), 207–216.

Huber, E., Stephens, J.D., Bradley, D. Moller, S. & Nielsen, F. (2009). The Politics of Women's Economic Independence. *Social Politics: International Studies in Gender, State and Society, 16* (1), 1-39.

Keck, M.E. & Sikkink, K. (1998). *Activists Beyond Borders: Advocacy Networks in International Politics*. Ithaca, NY: Cornell University Press.

King, E.M., and Mason, A.D. (2001). *Engendering Development: Through Gender Equality in Rights, Resources, and Voice*. Oxford & Washington, DC: Oxford University Press and World Bank.

Klein, N. (2007). *The Shock Doctrine: The Rise of Disaster Capitalism*. London: Penguin Books.

Kucera, D. (2002). Core labour standards and foreign direct investment. *International Labour Review*, *141*, 31-69.

Kucera, D. & Milberg, W. (2000). Gender segregation and gender bias in manufacturing trade expansion: revisiting the "Wood Asymmetry". *World Development*, *28* (7), 1191-1210.

Kukenova, M. & Monteiro, J.-A. (2009). Spatial dynamic panel model and system GMM: a Monte Carlo investigation. Working Paper. University of Lausanne and University of Neuchatel.

Lenz, I., Ullrich, C. & Fersch, B. eds. (2007). *Gender Orders Unbound? Globalisation, Restructuring and Reciprocity*. Leverkusen: Opladen.

Levi-Faur, D. 2005. The Global Diffusion of Regulatory Capitalism. *Annals of the American Academy of Political and Social Sciences, 598* (1),12-32.

Lovell, P.A. (2006). Race, gender, and work in São Paulo, Brazil, 1960-2000. Latin *American Research Review, 41* (3), 63-87.

Lozano, J.F. & Boni, A. (2002). The Impact of the Multinational in Development: An Ethical Challenge. *Journal of Business Ethics, 39*, 169-178.

Marshall, M.G., Jaggers, K. & Gurr, T.R. (2006). *Polity IV data sets*. Maryland: University of Maryland, Center for International Development and Conflict Management.

Meseguer, C. (2005). Policy Learning, Policy Diffusion and the Making of a New Order. *Annals of the American Academy of Political and Social Sciences, 598* (1), 67-82.

Moghadam, V.M. (2007). Globalization, states and social rights: negotiating women's economic citizenship in the Maghreb. *International Journal of Comparative Sociology* 33, 77–104.

Mooney, C.Z. (2001). Modelling regional effects on state policy diffusion. *Political Research Quarterly* 54 (1):103-124.

Morrisson, C. & Jütting, J.P. (2005). Women's discrimination in developing countries: a new data set for better policies. *World Development, 33* (7), 1065-1081.

Mosley, L. & Uno, S. (2007). Racing to the Bottom of Climbing to the Top? Economic Globalization and Collective Labor Rights. *Comparative Political Studies*, *8*, 923-948.

Naples, N.A. & Desai, M. (2002). *Women's Activitism and Globalization*. New York and London: Routledge.

Neumayer, E. & de Soysa, I. (2007). Globalization, Women's Economic Rights and Forced Labour. *World Economy*, *30* (10), 1510-1535.

Nickell, S. (1981). Biases in dynamic models with fixed-effects. *Econometrica*, *49* (6), 1417-1426.

Oostendorp. R.H. (2009). Globalization and the Gender Wage Gap. *World Bank Economic Review*, *23* (1), 141-161.

Parpart, J.L., Rai, S.M. & Staudt, K. eds. (2002). *Rethinking Empowerment: Gender and Development in a Global/Local World*. London: Routledge.

Paxton, P., Hughes, M.M. & Green, J.L. (2006). The International Women's Movement and Women's Political Representation, 1893-2003. *American Sociological Review*, *71*, 898-920.

Plümper, T. & Neumayer, E. (2010). Model Specification in the Analysis of Spatial Dependence. *European Journal of Political Research*, *49* (3), 418-442.

Plümper, T., Troeger, V.E. & Manow, P. (2005). Panel Data Analysis in Comparative Politics. Linking Method to Theory. *European Journal of Political Research*, *44*, 327-354.

Roodman D. (2007). *A short note on the theme of too many instruments*. Working Paper No. 125. Washington, DC: Center for Global Development.

Ross, M.L. (2008). Oil, Islam and Women. *American Political Science Review*, *102* (1), 107-123.

Sachs, J.D. & Warner, A. (1995). Economic reform and the process of global integration. *Brookings Papers on Economic Activity, 1*, 1-118.

Seguino, S. (1997). Gender Wage Inequality and Export-Led Growth in South Korea, *Journal of Development Studies*, 34, 2, 102-132.

Seguino, S. (2000a). Accounting for Gender in Asian Economic Growth. *Feminist Economics*, *6* (3), 27-58.

Seguino, S. (2000b). Gender Inequality and Economic Growth: A Cross-country Analysis. *World Development*, *28*, (7), 1211-1230.

Seguino, S. (2006). The great equalizer? Globalization effects on gender equality in Latin America and the Caribbean. In A. Shaikh (ed.): *Globalization and the Myth of Free Trade* (pp. 177-214). London: Routlege.

Sen, A. (1999). *Development as Freedom*. New York: Alfred A. Knopf.

Shiva, V. (2005). *The Polarized World of Globalization*. Global Policy Forum. http://www.globalpolicy.org/component/content/article/162/27674.html.

Simmons, B.A. & Elkins, Z. (2004). The Globalization of Liberalization: Policy Diffusion in the International Political Economy. *American Political Science Review*, 98, 171-189

Slaughter, A.-M. (2004). *A New World Order*. Princeton, NJ: Princeton University Press.

Spar, D. (1998). The Spotlight and the Bottom Line: How Multinationals Export Human Rights. *Foreign Affairs*, *77*, 7–12.

Spar, D., & Yoffie, D. (1999). Multinational Enterprises and the Prospects for Justice. *Journal of International Affairs*, *52* (2), 557–581.

Standing, G. (1999). Global Feminization Through Flexible Labor: A Theme Revisited. *World Development*, 17 (3), 583-602.

Stata. (2003). *Fixed effects ordered probit regression*. College Station, MD: Stata Corporation. http://www.stata.com/statalist/archive/2003-09/msg00103.html

Taylor, I. (2006). *China and Africa: Engagement and Compromise*. London: Routledge.

Tzannatos, Z. (1999). Women and Labor Market Changes in the Global Economy: Growth Helps, Inequalities Hurt and Public Policy Matters. *World Development*, *27* (3), 551-569.

UNCTAD. (2009). *Foreign direct investment database*. Geneva: UNCTAD.

UNDP. (2009). *Human Development Report*. New York: UNDP.

UNIFEM. (2008). Who Answers to Women: Gender and Accountability. In *Progress of the Worlds Women 2008/2009*. New York: United Nations Development Fund for Women.

Van Staveren, I., Elson, D., Grown, C. & Çağatay, N. (2007). *The Feminist Economics of Trade*. Oxon: Routledge.

Villarreal, A. & Yu, W-H. (2007). Economic globalization and women's employment: the case of manufacturing in Mexico. *American Sociological Review*, *72*, 365-389.

Ward, K.B. (1984). *Women in the World-System*. New York: Praeger.

Weyland, K.G. (2005). Theories of Policy Diffusion. Lessons from Latin American Pension Reform. *World Politics*, 57 (2), 262-295.

Wichterich, C. (2000). The Globalized Woman: Reports from a Future of Inequality. London: Zed Books.

World Bank (2009). *World development indicators on CD-Rom* (Washington, DC: World Bank).

Young, B. (2001). "Globalization and Gender: A European Perspective." In Gender, Globalization and Democratization, ed. R. M. Kelly, J. H. Bayes, M. E. Hawkesworth and B. Young. Boulder, CO: Rowman & Littlefield.

Endnotes

[1] The same is true of course for women's political rights, but the vast majority of countries grant women 'good' to 'very good' political rights already (Paxton et al. 2006). In terms of actual representation in national parliaments, most countries have only a small share of female parliamentarians, however.

[2] Note that because of row-standardization, it makes no difference whether for the purpose of creating the spatial lag variables, FDI and trade are measured in absolute terms or relative to country *i*'s GDP or gross fixed capital formation.

[3] FDI stocks relative to GDP has better data availability than FDI stocks relative to gross capital formation, which is why we prefer the former. Note, however, that results are robust to using FDI stocks relative to gross capital formation instead.

[4] Other variables, such as women's mobilization used in Huber, Stephen, Bradly, Moller & Nielsen. (2009) are more the consequence of women's rights than a determinant.

[5] Boserup (1970) suggests that the relationship might be non-linear with economic development first providing men with preferential access to economic resources, only benefiting women after a threshold level of economic development has been reached and women start entering the paid workforce. Some feminists even suggest that economic development might increase economic discrimination against women (Charlton, 1997). In pre-tests we included a squared income term to account for Boserup's hypothesis of non-linear relationship, but did not find it to be statistically significant. For this reason, income enters the estimations reported below only linearly.

[6] The statistic for computing a fixed-effects ordered logit or probit model is extremely complex, and there does not exist a routine in STATA currently, or to our knowledge at least, any other standard econometrics package to estimate such a model. Adding "by hand" country fixed effects to the ordered probit or logit estimator leads to biased coefficients and standard errors (Stata, 2003).

[7] Is reverse causality likely to represent a problem? Busse and Spielmann (2005) report evidence that a higher gender wage gap promotes the export of labor-intensive goods, whereas the opposite is the case for gender inequality in labor force activity and educational attainment rates. In a country study of South Korea, Seguino (1997) finds that the gender wage gap can explain some of the country's growth in exports. As concerns FDI, both Kucera (2002) and Busse and Spielmann (2003) find no evidence that greater gender inequality attracts foreign investors. While the existing evidence is thus mixed, we

cannot exclude the possibility that higher women's rights leads to more inward FDI or more trade. Note, however, that contrary to our general trade and FDI openness variables, our row-standardized spatial lag variables are not affected by this reverse causality if inward FDI from all source countries and trade with all partner countries go up similarly in response to higher women's rights. For the spatial lag variables, reverse causality is only an issue if higher domestic women's rights also affect the identity of foreign trade and investment partners, which we cannot exclude as a possibility.

[8] In order to provide some concrete examples of how women's rights have improved in one of the countries mentioned in this section, take Brazil. The 1988 Brazilian Constitution contains "some of the most advanced legislation and innovative mechanisms to advance women's rights" (Htun, 2002, p. 736) and while there are many enforcement issues, this progressive legislation was followed by a 1999 law designed to create incentives to hire more female employees, a change to the civil code in 2001 that grants men and women equality in marriage and a 2002 law that grants adoptive mothers the right to maternity leave and benefits (Htun, 2002). In the judgment of Lovell (2006, p. 80), despite many persistent problems Brazilian women "have made remarkable progress over the past four decades in securing hard-won legal rights and in gaining access to the highest levels of schooling, entrance into higher paying occupations, and narrowing the intraethnic gender wage gap".

[9] The asymptotic long-term effect – computed according to Plümper, Troeger & Manow (2005, p. 336) – is $\left.\frac{\partial y_{it}}{\partial \sum_k w^{trade}{}_{ikt-1} y_{kt-1}}\right|_{t \to T} = \sum_{t=1}^{T} \left(\beta_6 \beta_1^{T-t} \right)$, where T is sufficiently large (typically fifteen or more).

[10] We thank an anonymous referee for drawing our attention to this.

[11] The same holds for general FDI openness, but only for women's social rights and only in the global sample.

Table 1. Economic and social rights covered in Cingranelli and Richards' (2010) Human Rights Database.

Economic rights:

- Equal pay for equal work
- Free choice of profession or employment without the need to obtain a husband or male relatives consent
- The right to gainful employment without the need to obtain a husband or male relatives consent
- Equality in hiring and promotion practices
- Job security (maternity leave, unemployment benefits, no arbitrary firing or layoffs, etc...)
- Non-discrimination by employers
- The right to be free from sexual harassment in the workplace
- The right to work at night
- The right to work in occupations classified as dangerous
- The right to work in the military and the police force

Social rights:

- The right to equal inheritance
- The right to enter into marriage on a basis of equality with men
- The right to travel abroad
- The right to obtain a passport
- The right to confer citizenship to children or a husband
- The right to initiate a divorce

- The right to own, acquire, manage, and retain property brought into marriage
- The right to participate in social, cultural, and community activities
- The right to an education
- The freedom to choose a residence/domicile
- Freedom from female genital mutilation (FGM) of children and of adults without their consent
- Freedom from forced sterilization

Table 2. Summary Descriptive Variable Statistics.

Variable	Obs	Mean	Std. Dev.	Min	Max
women's economic rights	2195	1.373	0.653	0	3
$\ln GDPpc_{it}$	2195	7.752	1.590	4.395	10.654
$democracy_{it}$	2195	3.986	6.569	-10	10
$trade / GDP_{it}$	2195	76.407	42.779	6.320	462.463
FDI / GDP_{it}	2195	0.167	0.413	0	10.021
FDI-weighted spatial lag (economic rights)	2195	1.892	0.439	0	3
trade-weighted spatial lag (economic rights)	2195	1.699	0.247	0.603	2.691
women's social rights	1781	1.337	0.829	0	3
FDI-weighted spatial lag (social rights)	1781	2.166	0.580	0	3
trade-weighted spatial lag (social rights)	1781	1.795	0.335	0.713	2.777

Table 3. Correlation matrix.

	1	2	3	4	5	6	7	8	9	10
1: *women's economic rights*	1									
2: $\ln GDPpc_{it}$	0.5705	1								
3: $democracy_{it}$	0.4399	0.5053	1							
4: $trade / GDP_{it}$	0.1544	0.1122	-0.0346	1						
5: FDI / GDP_{it}	0.0735	0.0533	0.0578	0.2378	1					
6: *FDI-weighted spatial lag* (economic rights)	0.0912	-0.0318	-0.0615	0.0832	-0.011	1				
7: *trade-weighted spatial lag* (economic rights)	0.2914	0.2674	0.2756	-0.0226	-0.0115	0.2637	1			
8: *women's social rights*	0.7220	0.5763	0.5137	0.1047	0.1428	0.0948	0.3240	1		
9: *FDI-weighted spatial lag* (social rights)	0.0955	-0.0213	-0.0557	0.0504	-0.0474	0.7626	0.1791	0.0992	1	
10: *trade-weighted spatial lag* (social rights)	0.3325	0.3089	0.2940	-0.0087	-0.0131	0.1888	0.8125	0.3835	0.2596	1

Table 4. Estimation results for women's economic rights.

	(1)	(2)	(3)	(4)	(5)	(6)
		All countries			Developing countries only	
y_{it-1}		3.408***	0.379***		3.470***	0.395***
		(0.184)	(0.0469)		(0.182)	(0.0441)
$\ln GDPpc_{it}$	0.507***	0.322***	0.114***	0.412***	0.274***	0.0622***
	(0.161)	(0.0963)	(0.0164)	(0.154)	(0.0910)	(0.0161)
$democracy_{it}$	0.0710***	0.0300*	0.0118***	0.0547**	0.0168	0.00973***
	(0.0243)	(0.0157)	(0.00307)	(0.0265)	(0.0156)	(0.00294)
$trade / GDP_{it}$	0.00666**	0.00328**	0.000998**	0.00969***	0.00504***	0.00169***
	(0.00274)	(0.00160)	(0.000409)	(0.00283)	(0.00174)	(0.000407)
FDI / GDP_{it}	0.0749	0.104	0.0161	-0.108	0.00109	-0.0237
	(0.158)	(0.111)	(0.0236)	(0.119)	(0.115)	(0.0167)
FDI-weighted spatial lag	0.581***	0.459***	0.0549	0.162	0.205	-0.00253
	(0.222)	(0.151)	(0.0547)	(0.232)	(0.177)	(0.0595)
trade-weighted spatial lag	0.983**	0.682**	0.174*	0.995**	0.624*	0.152
	(0.444)	(0.331)	(0.100)	(0.490)	(0.347)	(0.105)
Countries	152	152	151	131	131	130
Observations	2195	2165	2157	1731	1701	1693

Note: The estimator is ordered logit in models 1-2 and 4-5 and system-GMM in models 3 and 6. Models 1-2 and 4-5 contain regional dummy variables, models 3 and 6 contain country fixed effects. Year-specific fixed effects always included. Robust standard errors adjusted for clustering on countries in parentheses.

* statistically significant at .1 level, ** at .05 level *** at .01 level.

Table 5. Estimation results for women's social rights.

	(1)	(2)	(3)	(4)	(5)	(6)
	All countries			Developing countries only		
y_{it-1}		3.565***	0.563***		3.324***	0.500***
		(0.182)	(0.0477)		(0.176)	(0.0564)
$\ln GDPpc_{it}$	0.355**	0.202**	0.0804***	0.123	0.0995	0.0217
	(0.179)	(0.0889)	(0.0171)	(0.165)	(0.0947)	(0.0173)
$democracy_{it}$	0.0714**	0.0285	0.0132***	0.0304	0.00527	0.0132***
	(0.0342)	(0.0182)	(0.00378)	(0.0274)	(0.0173)	(0.00362)
$trade / GDP_{it}$	0.00306	0.00281*	0.000744*	0.0107***	0.00633***	0.00168***
	(0.00336)	(0.00166)	(0.000441)	(0.00339)	(0.00194)	(0.000535)
FDI / GDP_{it}	0.759**	0.484***	0.111**	0.248	0.323**	0.0502
	(0.341)	(0.151)	(0.0565)	(0.222)	(0.142)	(0.0446)
FDI-weighted spatial lag	0.581***	0.273**	0.00143	0.329	0.180	0.00433
	(0.207)	(0.132)	(0.0401)	(0.261)	(0.177)	(0.0425)
trade-weighted spatial lag	1.475***	0.920***	0.315***	1.523***	0.891***	0.179*
	(0.480)	(0.279)	(0.0954)	(0.472)	(0.298)	(0.0936)
Countries	147	146	146	126	125	125
Observations	1781	1734	1734	1397	1355	1355

Note: The estimator is ordered logit in models 1-2 and 4-5 and system-GMM in models 3 and 6. Models 1-2 and 4-5 contain regional dummy variables, models 3 and 6 contain country fixed effects. Year-specific fixed effects always included. Robust standard errors adjusted for clustering on countries in parentheses.

* statistically significant at .1 level, ** at .05 level *** at .01 level.

Table 6. Estimation results for low-income and middle-income countries.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(7)
	economic rights				social rights			
	low-income countries		middle-income countries		low-income countries		middle-income countries	
y_{it-1}	3.712***	0.619***	3.128***	0.447***	3.498***	0.710***	3.286***	0.573***
	(0.263)	(0.0502)	(0.245)	(0.0506)	(0.326)	(0.0454)	(0.249)	(0.0404)
$\ln GDPpc_{it}$	0.258	0.0486	0.371**	0.0622**	-0.296	-0.0135	0.401**	0.0426
	(0.257)	(0.0345)	(0.160)	(0.0255)	(0.310)	(0.0316)	(0.167)	(0.0260)
$democracy_{it}$	0.00721	0.00233	0.0372*	0.0118***	0.0123	0.00285	0.00175	0.0136***
	(0.0237)	(0.00366)	(0.0224)	(0.00341)	(0.0317)	(0.00338)	(0.0306)	(0.00413)
$trade / GDP_{it}$	0.0106**	0.00208***	0.00575**	0.00121**	0.0139***	0.00220***	0.00661**	0.00102*
	(0.00464)	(0.000798)	(0.00224)	(0.000471)	(0.00445)	(0.000724)	(0.00270)	(0.000574)
FDI / GDP_{it}	-0.0449	-0.0269**	0.384	-0.00189	0.126	0.00944	0.967	0.136
	(0.0873)	(0.0131)	(0.542)	(0.0820)	(0.146)	(0.0238)	(0.629)	(0.118)
FDI-weighted spatial lag	0.495	-0.00904	0.349*	0.112**	0.318	-0.0215	0.202	0.0230
	(0.350)	(0.0588)	(0.202)	(0.0466)	(0.339)	(0.0506)	(0.205)	(0.0353)
trade-weighted spatial lag	0.161	-0.0198	1.448***	0.297***	0.500	-0.0413	1.471***	0.225***
	(0.665)	(0.106)	(0.437)	(0.0968)	(0.694)	(0.0959)	(0.375)	(0.0765)
Countries	58	57	66	66	53	53	65	65
Observations	675	673	964	958	553	553	756	756

Note: The estimator is ordered logit in models 1, 3, 5 and 7 and system-GMM in models 2, 4, 6 and 8. Models 1, 3, 5 and 7 contain regional dummy variables, models 2, 4, 6 and 8 contain country fixed effects. Year-specific fixed effects always included. Robust standard errors adjusted for clustering on countries in parentheses. * statistically significant at .1 level, ** at .05 level *** at .01 level.