
**POVERTY AND THE HIDDEN EFFECTS OF SEX
DISCRIMINATION: AN EMPIRICAL STUDY OF
INEQUALITY**

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ABSTRACT

Sexist laws are more prevalent in regions where poverty is endemic. The corollary is true as well: the places where women tend to experience better treatment are typically more highly developed. The legal academy has drawn several inferences from this observation, including the observations that poverty and the development process appear to be detrimental to women's rights. But despite the strength of this relationship, few legal studies seek to understand precisely why gender inequality seems to be inextricably linked to poverty.

Our research finds the opposite of what is generally assumed: the act of depriving women of fundamental rights is the very cause of underdevelopment. First, using a law and economic approach, sexist laws appear to create perverse behavioral incentives whereby actors rationally engage in inefficient behaviors. This is because sexist laws, in contrast to other forms of discrimination, burden so-

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ciety's basic economic unit—the family. For instance, regions that prohibit women from earning a wage depress the rate of investment since single-income families must approach the market overcautiously. These deductions are then supported by an original empirical analysis, which indicates that gender inequality and poverty are significantly and powerfully connected. Sexist laws are thus less the result of underdevelopment as much as its very cause.

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1. INTRODUCTION

Laws that discriminate against women are – on a global scale – vast and diverse.¹ In developing countries, it is commonplace for statutes and rules to prohibit women from, among other things, owning land,² inheriting property,³ obtaining education,⁴ and assenting to contracts.⁵ Under Swaziland common law, for example, men have sole authority to administer marital property.⁶ When a

¹ E.g., Jessica Neuwirth, *Inequality before the Law: Holding States Accountable for Sex Discriminatory Laws under the Convention on the Elimination of All Forms of Discrimination against Women and through the Beijing Platform for action*, 18 HARV. HUM. RTS. J. 19, 19 (2005) (“Wife obedience is mandated by law in Mali, and wife beating is permitted by law in Northern Nigeria. Women, unlike men, do not have the right to vote in Kuwait, and under the laws of evidence in Pakistan, the attestation of a woman regarding financial obligations is worth half the attestation of a man.”). See *Engendering Development Through Gender Equality in Rights, Resources, and Voice*, WORLD BANK 3 (2001) [hereinafter ENGENDERING DEVELOPMENT] (stating that women almost always suffer from some level of economic deprivation, yet it is most prominent and visible in lesser developed countries). See also Zainah Anwar & Jana S. Rumminger, *Gender Relevant Legislative Change in Muslim and Non-Muslim Countries: Justice and Equality in Muslim Family Laws: Challenges, Possibilities, and Strategies for Reform*, 64 WASH & LEE L. REV. 1529, 1531 – 32 (2007) (stating that not only are sexist laws most common in lesser-developed areas, but women also suffer a disproportionately large share of poverty and hardship). See generally Audrey Rowe, *The Feminization of Poverty: An Issue for the 90s*, 4 YALE L.J. 73 (1991) (discussing the concept of the “feminization of poverty,” which refers to the increasing margin by which women, relative to men, live in poverty).

² See Rachel Rebouche, *Labor, Land, and Women’s Rights in Africa: Challenges for the New Protocol on the Rights of Women*, 19 HARV. HUM. RTS. J. 235, 244 – 45 (2006) (stating that in Kenya, it is presumed that marital property is exclusively owned by the husband, providing few legal rights to the wife).

³ See Sarah J. Conroy, *Women’s Inheritance and Conditionality in the Fight against AIDS*, 28 WIS. INT’L L.J. 705, 706 (2011) (noting that in some areas women not only lack the right to inherit, but are actually deemed property that can be inherited by male relatives).

⁴ See generally Erika George, *Instructions in Inequality: Development, Human Rights, Capabilities, and Gender Violence in Schools*, 26 MICH. J. INT’L L. 1139 (2005) (describing the situations in which girls, particularly in the developing world, lack quality education).

⁵ Brenda Oppermann, *The Impact of Legal Pluralism on Women’s Status: An Examination of Marriage Laws in Egypt, South African, and the United States*, 17 HASTINGS WOM. L.J. 65, 70 (2006).

⁶ See *Sihlongonyane v. Sihlongonyane*, C.N. 470/2013A 1, 8 – 9 (2013) available at <http://www.swazilii.org/sz/judgment/high-court/2013/144-0> [<https://perma.cc/8ACW-D42E>] (citing HR HAHLO, *THE SOUTH AFRICAN LAW OF HUSBAND AND WIFE*, 161 (5th ed. 1985) in a case involving allegations that a woman’s husband transferred significant amounts of marital property to his mistress. This was his right by virtue of being a man under Swazi law; “It is by virtue of

Swazi woman recently sought to challenge this regulation in *Sihlongonyane v. Sihlongonyane*,⁷ the Swazi Supreme Court was unable to rule on the case's merits due to another law barring a woman from initiating lawsuits without her husband's permission.⁸ Since Mr. Sihlongonyane had refused to bless Mrs. Sihlongonyane's petition, she lacked legal standing to contest his handling, and squandering, of their estate.⁹

Notably, Swaziland is like most other places that deny women substantive rights: underdeveloped and deeply impoverished.¹⁰ The countries in which women suffer the lowest standards of development and greatest levels of discrimination are primarily the world's poorest.¹¹ According to the United Nations' data, eight of the bottom ten countries for underdevelopment are also in the bottom ten for gender inequality.¹² It is generally assumed that certain aspects of poverty impede women's rights,¹³ which the development process further aggravates.¹⁴ But how accurate is this explanation? Considering the dearth of scholarship studying the behav-

the marital power that the husband assumes the office of administrator of the joint estate, and the wife finds herself subordinated to his guardianship, bereft of active legal capacity..." (internal citation omitted).

⁷ *Id.*

⁸ *Id.* at 17 (stating that the petitioner urged the court to strip her husband of exclusive authority while "aver[ing] further that she is fully capable and fit to properly administer the... estate." Furthermore, "[w]hilst it is accepted that in terms of the common law, a married woman who is subject to the marital power may approach the court for leave to sue without the aid of her husband—*venia agenda*... A married man does not, under any circumstances, have to apply for such leave.").

⁹ *Id.* at 6–7.

¹⁰ The World Bank found that for much of the decade around two-thirds of Swaziland lived below the poverty line. Life expectancy is a paltry 49 years and the per capital income is \$3,080, which is actually significantly better than most other parts of Sub-Saharan Africa. *World Development Indicator Data for the country of Swaziland*, WORLD BANK, <http://data.worldbank.org/country/swaziland> [<https://perma.cc/37Z7-97PQ>] (last visited Jan. 26, 2015).

¹¹ *Infra* section II.

¹² *Gender Inequality Index*, UNITED NATIONS DEVELOPMENT PROGRAMME, <http://hdr.undp.org/sites/default/files/hdr14-report-en-1.pdf> [<https://perma.cc/RQ6N-LRNT>] (2013).

¹³ See, e.g., Justice Yvonne Mokgoro, *Constitutional Claims for Gender Equality in South Africa: A Judicial Response*, 67 ALB. L. REV. 565, 568 (2003) (explaining that certain inequalities from which women suffer increase the rate in which women live in poverty).

¹⁴ See *infra* notes 66–70 and accompanying text.

ioral incentives associated with gender inequality,¹⁵ this article investigates why sexist laws are most prevalent in areas where poverty is endemic. Or, in so many words, what is the law and economics of sex discrimination?

Using an original dataset, advanced quantitative methods, and a law and economics approach, this article uncovers a powerful and counterintuitive dynamic: poverty often thrives precisely *because* of laws that discriminate against women. As will be explained, the family functions as society's foundational economic unit, providing an efficient means for actors to participate in the market.¹⁶ But, in contrast to other forms of discrimination, gender inequality undermines the family structure, discouraging both men and women from engaging in productive economic behaviors.¹⁷ For instance, prohibiting women from earning a wage depresses the rate of investment since single-income families must then approach the market over-cautiously. Sexist laws are not just tangentially related to global poverty but instead one of its greatest determinants.

This article seeks to make several contributions. On a practical level, our findings indicate that attempts to alleviate poverty and underdevelopment must account for the deleterious effects of sex discrimination. Theoretically, this article contributes to the law and economics literature, including a discussion of how sexist legal codes and regulations of the family structure render deleterious behavioral incentives. We also hope that our dataset can support future research projects in light of this subject's current lack of data.¹⁸ But the biggest takeaway is likely our finding that increasing women's rights fulfills more than justice; it is also good business.

¹⁵ See Barbara Stark, *Women and Globalization: the Failure and Postmodern Possibilities of International Law*, VAND. J. TRANSNAT'L L. 503, 591 (2000) (arguing that the literature has ignored substantial issues of women's economic justice, which is a much greater concern to impoverished women than some human rights issues that have been more keenly examined). See, e.g., Barnali Choudhury, *The Façade of Neutrality: Uncovering Gender Silences in International Trade*, 15 WM. & MARY J. WOMEN & L. 113, 115 - 17 (2008).

¹⁶ See RICHARD POSNER, *ECONOMIC ANALYSIS OF LAW*, 183 (8th ed. 2011) (explaining that the family serves as an economic unit, allowing its members to operate efficiently).

¹⁷ *Infra* Section 3 (discussing how actors must consider not only themselves but also their families when making economic decisions. Laws that discriminate by sex have the effect of disrupting the manner in which decide to spend, save, and invest).

¹⁸ Stark, *supra* note 15, at 526.

Section II discusses the pervasiveness of legally sanctioned sex discrimination, detailing how certain laws deprive women of economic and legal rights. Special emphasis is given to perhaps the most unforgiving legal code, African customary law. This is followed by a law and economics analysis in Section III, which canvasses the effects of sex discrimination and the process by which it frustrates economics growth and development. Section IV presents empirical research, suggesting that women must gain economic equality or else underdevelopment and poverty will persist. This article then concludes with several policy prescriptions.

2. THE LEGAL FRAMEWORK OF GENDER DISCRIMINATION

Gender inequality is ultimately a legal problem.¹⁹ The degree to which women suffer from discrimination is typically the product, or failure, of certain statutes, common law rules, and even international legal authorities.²⁰ And considering the prevalence of

¹⁹ See Rebecca J. Cook, *State Responsibility for Violations of Women's Human Rights*, 7 HARV. HUM. RTS. J. 125, 126 (1994) (noting the comparative deprivation of women, stemming from discriminatory legal codes). See generally Judith Resnick, *Opening the Door: Ruth Bader Ginsburg, Law's Boundaries, and the Gender of Opportunities*, 25 COLUM. J. GENDER & L. 81 (2013) (explaining the nexus between the law and sex discrimination).

²⁰ The role of international law and authorities are particularly important in understanding the pervasiveness of global gender inequality. Cook, *supra* note 19, at 126. Sovereign states may enact and enforce sexist laws with little resistance from the international community. The international community considers gender discrimination to be a nation's prerogative, refusing to pass meaningful reforms potentially in tension with a country's sovereignty. This landscape is especially notable considering the international community's more fervent opposition to racial discrimination. See Ann Elizabeth Mayer, *A "Benign Apartheid: How Gender Apartheid Has Been Rationalized"*, 5 UCLA J. INT'L L. & FOREIGN AFF. 237, 239 (2000) (noting that the international community has relatively ignored issues of gender discrimination, relative to racial discrimination); Celestine Nyamu, *How Should Human Rights and Development Respond to Cultural Legitimization of Gender Hierarchy in Developing Countries*, 41 HARV. INT'L L.J. 391 - 392 (2000) (finding that, "the minimal presence of women's rights NGOs in rural areas, where the issue of land has greater significance, perpetuates the political/economic rights dichotomy."); Stark, *supra* note 15, at 531 - 32 at 535:

[I]nternational law has failed women in at least two distinct ways, both grounded in its failure to fully and effectively incorporate human rights law. First, on the state level, it has failed to prevent the widespread deprivation of human rights, caused by shredded safety nets, environmental degradation, and other byproducts of globalization, or to alleviate the re-

sexist laws in impoverished areas, the occurrence of gender inequality seems to be far from coincidental.²¹ This section examines the nature of sexist laws to shed light on their effects on economic behavior. And as will be shown, some societies enforce legal codes, and even entire bodies of law, that can best be described as holistic efforts to subjugate women, rendering profound systemic consequences.

sultant human suffering... Second, international law has failed to compel even the most basic recognition of human rights on the part of the Major Players, that is, non-state actors who are in fact the principal agents of globalization.

Furthermore, the primary, and virtually only, international law regime governing women's rights is the United Nations' Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW). *Id.* at 544. Certain CEDAW provisions ostensibly obligate countries to replace discriminatory laws with those guaranteeing women equal rights. Two specific provisions, Articles 2(f) and 5(a), instruct member states to supplant discriminatory laws and practices with modernized institutions prescribing egalitarian treatment. *But see* Nyamu, at 391 – 92 (finding that the accord lacks authority to compel signatories, allowing certain member states – most of which being the worst offenders – to carve out exceptions to key articles; “[m]any Third World states, especially those with an Islamic majority, have, however, made reservations to these articles.”); Neuwirth, *supra* note 1, at 25 (“many parties have ratified CEDAW with reservations specifically intended to protect them from the obligations to repeal sex discriminatory laws in force at the domestic level.”); *see also* Ann Laquer Estin, *Religious and Legal Pluralism in Comparative Theoretical Perspective: Family Law, Pluralism, and Human Rights*, 25 EMORY INT’L L. REV. 811, 818 (2011) (noting the countries that refused to ratify parts of the CEDAW using language of gender equality). Although a few other intergovernmental organizations – such as the World Bank’s Engendering Development program – have sought to bind member states to promoting gender equality, the same problems regarding the lack of enforceability persist. *See* Ritich, *infra* note 71, at 584 (“Engendering Development attempts to present a coherent, if flexible, vision of gender equality, one that is organized around ensuring ‘basic’ rights and enhancing women’s market skills and promoting greater voice. Yet there are multiple Lacunae and instabilities in the vision of equality it advances, and numerous possible points of engagement with its claims.”).

²¹ Many of the countries rated as the poorest also provide women with the worst quality of life and the fewest substantive rights. One *Newsweek* study ranked every country based on women’s access to justice, health, education, economic rights, and political rights. The worst countries for women’s rights were highly correlated with the International Monetary Fund’s listing of countries that have the lowest gross domestic product per capita. For instance, the Democratic Republic of the Congo was considered the poorest country in the world and the third worst for women. Other countries that topped both lists include Niger, Afghanistan, Mali, and Ethiopia. *Best Countries for Women Full List*, NEWSWEEK/DAILY BEAST, <http://www.scribd.com/doc/65645520/Best-Countries-for-Women-Full-List> [<https://perma.cc/234J-GCCW>] (Sept 20, 2011); *Data and Statistics*, INT’L MONETARY FUND, <http://www.imf.org/external/data.htm> [<https://perma.cc/7THH-CBVZ>] (Last visited Mar. 12, 2015).

The most common and debilitating types of sexist laws discriminate against women in the workplace and home.²² Notable examples include a Latin American labor law that allows employers to terminate, or resist hiring, a pregnant woman after administering a compulsory pregnancy testing.²³ Similarly, the Russian Federation enforces an employment statute that prohibits women from working any job found on a list of over 450 occupations requiring physical labor or ostensibly lacking femininity.²⁴ Chinese employers pay women on average of about 60-70% of male wages for the same work.²⁵ And critics allege that American employment laws fail to protect women against certain abuses from which men do not usually suffer.²⁶

²² See generally Mayabanza S. Bangudi, *Recognizing Humanity: Achieving International Gender Equality in Labor Employment*, 6 GEO. J. GENDER & L. 147 (2005) (describing the problems women have globally in the work place).

²³ See Jennifer M. Swedish, *The SETISA Factory: Mandatory Pregnancy Testing Violates the Human Rights of Honduran Maquila Workers*, 4 NW. U. J. INT'L HUM. RTS. 363, 364 (2005) (finding that Honduran women are routinely forced by their employers to take pregnancy tests at the time of employment and then afterward. Women found to have become pregnant were fired). See also Elizabeth Georgen, *Women Workers in Mexico: Using the International Human Rights Framework to Achieve Labor protection*, 39 GEO. J. INT'L L. 407, 414 (2008) (describing the employment abuse of pregnant Mexican laborers).

²⁴ Russia's barrier preventing women from working certain jobs entailing "hard, physical" work was challenged by woman who sought to become a St. Petersburg metro driver. This job was deemed inherently dangerous and unfit for women. In challenging the statute, the Russian Supreme Court upheld the prohibition, noting it complied with all applicable standards and conventions set forth by the International Labor Organization. Alexander Marquardt, *Why Can't Russian Women Drive Buses?*, ABC NEWS, Mar. 25, 2010, <http://abcnews.go.com/International/russian-women-drive-buses/story?id=8220576> [<https://perma.cc/HM32-4D9K>]; *Supreme Court Disallows Women from Being Subway Motormen*, LIVE J., Mar. 2, 2009, <http://russian-law.livejournal.com/23684.html> [<https://perma.cc/QY3Q-WCSK>]. See Jessica Golloher, *Russian Woman Continues Fight for Equal Rights to Employment*, 51 VOA, Nov. 5, 2009, http://www.51voa.com/VOA_Standard_English/VOA_Standard_English_34419.html [<https://perma.cc/SDV2-4ZD5>].

²⁵ See Ronald C. Brown, *China's Employment Discrimination During Economic Transition*, 19 COLUM. J. ASIAN L. 361, 364 (2006) (for instance, female doctors are typically paid about 63% of what male Chinese doctors earn).

²⁶ See Cary Franklin, *Inventing the "Traditional Concept of Sex Discrimination*, 125 HARV. L. REV. 1307 (2012) (outlining the problems with Title VII). See also Suzanne B. Goldberg, *Discrimination by Comparison*, 120 YALE L.J. 728, 731 - 33 (2011) (discussing how women often have difficulties proving sex discrimination claims because most courts demand sex that these suits identify other employees who received the same and disparate treatment due to their sex).

Likewise, under various bodies of family law, a woman who enters marriage stands to lose her citizenship, unable to pass such rights onto her children.²⁷ Women in some Middle Eastern countries cannot assent to their own marriages²⁸ and, under Malaysian law, a wife can lose her right to economic support if she disobeys her husband.²⁹ A Chinese divorce statute effectively vests title of a former couple's marital property in the man's name exclusively,³⁰ and it was not until recently when Ugandan women gained the right to file for divorce without having to prove certain limited and extreme factors.³¹ In fact, some places, including Nigeria, permit domestic violence, literally allowing men to beat their wives into compliance.³²

While sexist laws can operate independently as a discrete means to discriminate, some legal codes entail holistic efforts to deprive women of substantive rights. African customary law falls

²⁷ Stephanie Palo, *Citizens after Marriage: Exploring Violations of Women's Nationality Rights*, WOMEN'S RTS. L. REP. 673, 674 (2009); see Lisa C. Stratton, Note, *The Right to Have Rights: Gender Discrimination in Nationality Laws*, 77 MINN. L. REV. 195, 196 - 97 (1992) (finding that depriving women of the right to pass citizenship to their offspring severely limits the rights of both mothers and children);

²⁸ Oppermann, *supra* note 5, at 70.

²⁹ Zainah Anwar & Jana S. Rumminger, *Gender Relevant Legislative Change in Muslim and Non-Muslim Countries: Justice and Equality in Muslim Family Laws: Challenges, Possibilities, and Strategies for Reform*, 64 WASH & LEE L. REV. 1529, 1531 (2007).

³⁰ Didi Kirsten Tatlow, *Chinese Women's Progress Stalls on Many Fronts*, N.Y. TIMES, Mar. 6, 2012, http://www.nytimes.com/2012/03/07/world/asia/chinese-womens-progress-stalls-in-varied-standards.html?pagewanted=all&_r=0 [<https://perma.cc/TH9H-S9WW>] (describing how women often give their husbands "face," titling all marital property in his name, but then under Chinese marital law, such property reverts to its legal owner upon a divorce, effectively depriving women of their share of marital purpose).

³¹ See *The Ugandan Association of Women Lawyers and Others v. The Attorney General*, Const. Petitions Nos. 13/05/ & 05/06 [2007] UGCC 1 at 10 - 11 (Uganda), available at <http://www.saflii.org/ug/cases/UGCC/2007/1.rtf> [<https://perma.cc/AM6B-MX3K>] (stating that a Ugandan woman's right to divorce was limited only to instances of "desertation, rape, bigamy, or sodomy." The Ugandan Supreme Court overruled the statute, finding that it unreasonably upheld archaic gender stereotypes and roles). *Africa's Women's Rights Observatory*, U.N. ECON. COMM'N AFRICA, http://www1.uneca.org/awro/awro_databank.aspx [<https://perma.cc/FJ85-KFZT>] (last visited Mar. 12, 2015).

³² See, e.g., Neuwirth, *supra* note 1, at 19 (citing legalized wife beating in North Nigeria). See also Alice Edwards, *Violence Against Women as Sex Discrimination: Judging the Jurisprudence of the United Nations Human Rights Treaty Bodies*, 18 TEX. J. WOMEN & L. 1, 44 (2008) (assessing violence against women as sex discrimination).

into this category. Most African nations are home to a number of diverse ethnic groups, most of which enforce their own independent legal systems known as “customary law.”³³ These institutions are non-statutory bodies of law, found mainly in rural areas, possessing the same authority as, and existing alongside of, codified laws.³⁴ While customary law helps to protect certain longstanding traditions,³⁵ it also deprives women of fundamental rights. For instance, customary law assumes that women require caretaking and protection,³⁶ deeming women to be the property of their husbands or fathers.³⁷ A woman’s possessions are thus controlled by such family member for her custodial benefit,³⁸ barring female ownership of most personal goods except for clothing.³⁹ African scholar, Marjoleine Benschop, cited the story of a Ugandan farmer who, while likening his wife to a tractor, wondered how she could own property if she, herself, was property.⁴⁰ Even in matrilineal Ghana, a husband may leverage his wife as collateral for a loan.⁴¹ In some countries such as Tanzania, a woman can be purchased for marriage at the cost of chickens and livestock.⁴²

³³ JM, Pienaar, *Broadening access to land: The Case of African Rural Women in South Africa*, J.S. AFR. L. 177, 178 (2002).

³⁴ *Id.* at 178 (“Customary law is recognized by the courts and exists as a second body of law (in addition to statutory law) governing citizens in the countries of Sub-Saharan Africa. It has the greatest control over people in rural areas . . .”). See also Amrita Kapur, “Catch-22”: *The Role of Development Institutions in Promoting Gender Equality in Land Law—lessons Learned in Post-Conflict Pluralist Africa*, 17 BUFF. HUM. RTS L. REV. 75, 88 (“These customary traditions have evolved independently from, and often in contradiction to, state institutions. Compounding this plurality of authority” is weak institutional knowledge.).

³⁵ S.F. Joireman, *infra* note 70, at 1235.

³⁶ See Pienaar, *supra* note 33, at 183 (“[A] daughter was always under the guardianship of her father and a wife was always under the guardianship of her husband. Guardianship under customary law affected all decisions regarding property, land, and ownership.”).

³⁷ *Id.* at 36.

³⁸ See S.F. Joireman, *infra* note 70, at 1239.

³⁹ *Id.* at 1238.

⁴⁰ See Marjolein Benschop, *Women’s Rights to Land and Property*, U.N. RULE OF LAW (2004), available at <http://www.unrol.org/files/womensrightstolandandproperty.pdf> (mentioning that the Ugandan farmer “compared his wife with a tractor, how could she (co-) own property if she herself was (seen as) his property.”).

⁴¹ MICHAEL KEVANE, *WOMEN AND DEVELOPMENT IN AFRICA: HOW GENDER WORKS* 31 - 32 (2004).

⁴² See Rachel C. Loftspring, *Inheritance Rights in Uganda: How Equal Rights Would Reduce Poverty and Decrease the Spread of HIV/AIDS in Uganda*, 29 U. PA. J.

The concept of women as property likewise bars African women from owning real property.⁴³ African regional leaders distribute available community land to local clans with each family's male head as the ultimate beneficiary;⁴⁴ because customary law considers women unfit to own real estate, a woman who receives land from her family's patriarch is barred from registering it in her own name.⁴⁵ While women may *use* land to farm, only a man can alienate it on the market or otherwise exploit its economic potential.⁴⁶

Furthermore, under most customary intestacy and inheritance laws, when an African woman is widowed, her husband's real

INT'L L. 243, 252 (2007) ("[T]he payment of a bride price is akin to purchasing property, giving a man full ownership over his wife. The payment of bride price demeans a woman's status by encouraging men to conceive of their wives as chattel... After being purchased, women often feel subservient to their husbands, who can do as they wish with their wives. Men may pay for their wives uses several means of payment including chickens and livestock.") (alterations in original). See also *Women are Not Men*, FREAKONOMICS RADIO (Feb. 14, 2013), <http://freakonomics.com/2013/02/24/women-are-not-men-a-new-freakonomics-radio-podcast/> [<https://perma.cc/9NQV-MW4S>] (stating that in the Maasi Tribe in Tanzania, the cost of a woman is about ten cows, making wives the property of their husbands).

⁴³ See Nyamu, *supra* note 20, at 396 (noting that women generally have less control over land due to societal perceptions that women lack the ability to make decisions regarding land use and are typically not entitled to shares of land upon marital dissolution).

⁴⁴ See Pienaar, *supra* note 33, at 179 - 180 (explaining that the chiefs or headmen of tribes can grant land to individual families and that the head of the family, the male member, is the one who decides how received land is used by the family); see also Nyamu, *supra* note 20, at 396 (discussing the concept of "male head of household" as the criterion used for land title registration).

⁴⁵ See Nyamu, *supra* note 20, at 396 ("Women are regarded as lacking the authority to make major decisions concerning land use and cannot inherit land or acquire a share of land following marital dissolution if they were married under customary law . . . African customary laws are used as the primary justification for this exclusion of women: national land registration programs have replicated these socio-cultural conventions. Using the concept of 'male head of household' as the criterion for title registration, most, if not all, title to registered land is individually held in men's names.").

⁴⁶ See Susana Lastarria-Cornhiel, *Impact of Privatization on Gender and Property Rights in Africa*, 25 WORLD DEV. 1317, 1321 (1997) (stating that "men control household land because the community authorities have allocated the land to male household heads; these lands are then passed down to male heirs."); see also Pienaar, *supra* note 33, at 179 - 180 ("For most women, access to land depends on their relation to male relatives and the specific laws and practices of the area. Although a husband has an obligation to provide arable land to his wife to farm and decide which specific piece of land the woman can use for how long.").

property passes only to male relatives.⁴⁷ This causes devastating effects when a man dies before his widow bears his child since the family inheriting the deceased's property often evicts the widow.⁴⁸ Widow evictions are commonplace to the degree that an African social movement endeavors to help widows remain in their former homes.⁴⁹ In fact, some African countries statutorily permit widow discrimination; for example, Zimbabwe's Customary Law and Primary Courts Act formally bequeaths property along traditional lines to men only.⁵⁰ That said, a few African Supreme Court cases have recently taken a different approach. South Africa declared in *Bhe and Others v. The Magistrate*⁵¹ that national intestacy laws may no longer bypass women for the sake of more remote male relatives.⁵²

Importantly, the act of limiting primary property rights diminishes critical secondary economic rights.⁵³ Barring female ownership of real property, for instance, prevents women from possessing collateral to leverage.⁵⁴ Indeed, since those who own few

⁴⁷ Lastarria-Cornhiel, *supra* note 46, at 1321 – 1328.

⁴⁸ Benschop, *supra* note 40 (discussing various causes and issues associated with the widespread prevalence of widow evictions).

⁴⁹ See *Africa's Homeless Widows*, N.Y. TIMES, June 16, 2004, <http://www.nytimes.com/2004/06/16/opinion/africa-s-homeless-widows.html> [<https://perma.cc/ASQ9-DE83>] (mentioning that African civil rights movements have targeted inheritance laws that have long treated women as minors, unable to inherit property. And also, considering the increased mortality rate of men due to AIDs, widowed women have been evicted from their homes by their husband's family and left homeless).

⁵⁰ No. 6, § 3(4) (1981) (Zimb.).

⁵¹ *Bhe & Others v. Magistrate, Khayelitsha & Others* 2005 (1) SA 580 (CC) (S. Afr.).

⁵² UNISA UNIT FOR GENDER RESEARCH IN LAW, WOMEN AND THE LAW IN SOUTH AFRICA: EMPOWERMENT THROUGH ENLIGHTENMENT 40 – 42 (1998) (remarking that the South African Supreme Court found in three cases that the Black Administration Act unfairly deprived women of inheritance rights when, for example, a deceased father's property bypassed his daughters so that male cousins took instead). *But see* Maxine Langwena, *Historic Step Towards Equality for Swazi Women: An Analysis of Mary-Joyce Aphane v. The Registrar of Deeds*, OPEN DEBATE, 1, 3 – 4 (2012), http://www.osisa.org/sites/default/files/open_debate_6_-_doo_aphane_v_registrar.pdf [<https://perma.cc/7STK-AF39>] (discussing *Aphane v. the Registrar of Deeds*, where Swaziland's Supreme Court ordered the legislature to redraft the national land titling systems to permit female registration of real property).

⁵³ See, e.g., Nyamu, *supra* note 20, at 397 (explaining that abridging some primary rights has consequential effects on other economic rights).

⁵⁴ Nyamu, *supra* note 20, at 397 (“Without evidence of land ownership, women cannot offer adequate collateral to secure a loan.”); see also Janet M. Sawaya,

assets can rarely obtain loans or other forms of credit, the ability of African women to invest, among other marketplace activities, is severely limited.⁵⁵ The UN's *African Women's Report* determined that the resources available to African women constitutes only forty-four percent of those available to men, illustrating the barriers women face in seeking to improve their social and market standings.⁵⁶

Although most African constitutions ostensibly guarantee women equal protection, a number of African supreme courts have held that constitutional protections apply only to *statutory* laws, as opposed to customary laws.⁵⁷ In *Magaya v. Magaya*,⁵⁸ a Zimbabwean court affirmed that "a lady... cannot be appointed [as heir] to [her] father's estate when there is a man" on the grounds that customary law is not subject to constitutional guarantees.⁵⁹ Other

Rights Education As A Means Of Economic Empowerment For Women In Sub-Saharan Africa, 2 GEO. J. ON FIGHTING POVERTY 329, 330 (1995) ("Without control, access, or the ability to exploit economic resources, women are not able to improve their economic statuses... Thus, each denial of an economic right gives rise to another denial and ensures women have continued economic dependence.").

⁵⁵ Nyamu, *supra* note 20, at 397 (citing as an example how "women are often denied a share of marital property after divorce since title to their property is held in their husband's name. Th[is] male bias in land registration also impedes obtaining independent credit.").

⁵⁶ ECONOMIC COMMISSION FOR AFRICA, *AFRICAN WOMEN'S REPORT 2009: MEASURING GENDER INEQUALITY IN AFRICA: EXPERIENCES AND LESSONS FROM THE AFRICAN GENDER AND DEVELOPMENT INDEX* ("Cases where the family is headed by a female account for 59% of all African families classified as poor... in practice it is usually the women (who have the primary responsibility of taking care of the family) who inevitably bear the burden of poverty.").

⁵⁷ See Valerie Knobelsdorf, *Zimbabwe's Magaya Decision Revisited: Women's Rights and Land Succession in the International Court*, 15 COLUM. J. GENDER & L. 749 (2006) (describing legal decision making as a "delicate balancing process" between constitutional and international law and the strong legal protections for cultural practices); David M. Bigge & Amelie von Briesen, *Conflict in the Zimbabwean Courts: Women's Rights and Indigenous Self-determination in Magaya v. Magaya*, 13 HARV. HUM. RTS. J. 289, 295 (2000) (discussing the aftermath of the *Magaya v. Magaya* case and its implications for using constitutional law to further women's rights objectives).

⁵⁸ (1999) 3 L.R.C. 40 (Zimb. Sup. Ct.).

⁵⁹ See Knobelsdorf, *supra* note 57, at 750 - 51 (discussing a case in which an appellate court denied a woman the right to inherit due to her sex for her younger half-brother, who relegated her to a shack in the neighbor's yard). *But see* In re Wachokire, (2002) Succession Cause No. 192 of 2000, Int'l Assoc. of Women Judges, <http://www.iawj.org/JEPcases.html> [<https://perma.cc/KJ2C-P9NF>] (last visited Mar. 12, 2015) (discussing a Kenyan woman who was awarded a minority share of her father's land because "under Kikuyu customary law, an unmarried woman like Watiri lacked equal inheritance rights because of the expectation that

courts have refused to use constitutional grounds to unsettle customary law out of fear that local authorities would ignore such rulings, undermining the constitution.⁶⁰ This occurred in *Stephen and Another v. Attorney General*,⁶¹ in which a Tanzanian court upheld that women are barred from selling family land in order to guarantee the “sacrosanct nature of the constitution.”⁶² It thus appears that, despite the clarity of the Tanzanian constitution, the judiciary feared that trumping customary law would serve only to embarrass its constitution.

Curiously, in light of the prevalence of sexist laws, it is seldom questioned why discrimination is more prominent in places where underdevelopment and poverty levels are elevated.⁶³ We find, as the next section demonstrates, that sexist laws create unique burdens on the family structure, rendering perverse incentive structures whereby actors rationally engage in economically inefficient behaviors. Gender inequality is, indeed, not just tenuously related to global poverty, but one of its greatest determinants.

she would get married.” The appellate court overruled, holding that the trial court’s decision violated the Kenyan constitution as well as CEDAW).

⁶⁰ Sibongile Ndashe & Solomon Sacco, *Watch the Courts Dance: Litigating the Right to Non-Discrimination on the Ground of Sex*, 4 EQUAL RTS. REV. 1, 30 (2009), <http://www.equalrightstrust.org/ertdocumentbank/Ndashe&Sacco.pdf> [<https://perma.cc/DA9L-RHHD>].

⁶¹ Sibongile Ndashe & Solomon Sacco, *Watch the Courts Dance: Litigating the Right to Non-discrimination on the Ground of Sex*, 4 EQUAL RTS. REV. 26, 29 – 30 (2009) (citing Miscellaneous Civil Cause 82 of 2005 [Tanz.]). See also Judica Murimo, *Tanzania: Court throws out petition...*, WOMEN LIVING UNDER MUSLIM LAWS, <http://www.wluml.org/node/3178> [<https://perma.cc/GW8J-BMWP>] (detailing the court’s rejection of the petition despite arguments that the customary laws violated the Constitution and international human rights obligations).

⁶² Ndashe & Sacco, *supra* note 60, at 30.

⁶³ For example, in light of African customary law, *The Economist* reported that “only 15% of Africans today live in an environment considered minimally adequate for sustainable growth and development,” and nearly half of Africa resides in poverty. *The Heart of the Matter*, THE ECONOMIST (May 13, 2000), <http://www.economist.com/node/333437> [<https://perma.cc/9EZF-PUT7>]. The lack of development is equally alarming since a majority of African economies declined from 1975 – 1990 while only two nations displayed growth exceeding two percent. MICHAEL KEVANE, WOMEN AND DEVELOPMENT IN AFRICA: HOW GENDER WORKS, 10 (2004).

3. WOMEN, SEXIST LAWS, AND POVERTY: A LAW AND ECONOMICS PERSPECTIVE

A law and economics perspective can provide key insights into gender inequality and poverty's relationship by emphasizing the manner in which actors rationally respond to sexist laws. Previously the legal academy has produced several notable findings on the subject, primarily from the law and development and gender and law literatures. For instance, the latter field notes that poverty disproportionately affects women, commonly referred to as the "feminization of poverty."⁶⁴ In impoverished regions, women generally earn less, have fewer rights, suffer worse health issues, and are more likely to become victims of violence, among other social and economic ills.⁶⁵ But while this research offers important insights, it tends to explore the manner in which gender inequality influences poverty *in women* and less its overall impact on society.

Moreover, the law and development field⁶⁶ primarily studies law and democracy's influence on societal growth, giving less attention to the role of gender equality.⁶⁷ And the works that do incorporate women's rights tend to assume that changes in gender

⁶⁴ See Ann R. Tickamyer, *Public Policy and Private Lives: Social and Spatial Dimensions of Women's Poverty and Welfare in the United States*, 84 KY. L.J. 721, 725 (1996) (providing examples of why women are more likely to be trapped in poverty: "Most mainstream and feminist social scientists currently agree that the major factors responsible for women's poverty arise from a complex mix of economic disadvantage in the labor market and disproportionate responsibility for reproductive labor or the caregiving responsibilities that traditionally make up women's work").

⁶⁵ Dejo Olowu, *Human Development Challenges in Africa: A Rights-Based Approach*, 5 SAN DIEGO INT'L L.J. 179, 186 - 87 (2004) (describing the health challenges women face, relative to men, in addition to other important issues).

⁶⁶ See, e.g., Thom Ringer, *Development, Reform, and the Rule of Law: Some Prescriptions for a Common Understanding of the 'Rule of Law' and its Place in Development Theory and Practice*, 10 YALE H.R. & DEV. L.J. 178, 179 (2007) (discussing national and international efforts to promote the rule of law in hopes of inspiring development); see also Lan Cao, *Culture Change*, 47 VA. J. INT'L L. 357, 365 - 66 (2007) (explaining the role of the law in the law and development literature: "Law and development remains a priority for traditional development organizations such as the World Bank, as secure property and contract rights are deemed necessary for the development of a robust, rule bound market. Even charitable NGOs such as Oxfam... generally acknowledge that a working market (and the rule of law necessary to support it) is imperative for poverty reduction.").

⁶⁷ But see Cao *supra* note 66, at 367 - 68 (discussing the relationship between women's rights and development).

equality are the *results* of certain development policies including trade liberalization,⁶⁸ though disagreements persist about whether such policies harm or help women.⁶⁹ But despite the strength of these studies, it is seldom considered whether the nature of women's position in society is driving the relationship;⁷⁰ in other words,

⁶⁸ See *id.* (discussing the relationship between women's rights and development, but assuming "that economic development, in the long run, translates into better protection for human rights than other indicators, such as ratification by states of human rights treaties."); Apodaca, *infra* note 169, at 160 ("All statistical tests support the conclusion that economic development has a positive effect on women's equality in the enjoyment of economic and social rights."); Lyndsay J. Montour, *Connecting the Spheres of Trade and Gender: Creating a Gender-Conscious World Trade Organization*, 47 SUFFOLK U. L. REV. 397, 400 (2014) ("While trade liberalization does not cause gender inequality, increased trade can significantly change a country's economic conditions, intensifying existing gender-based inequalities.").

⁶⁹ There is a significant debate in the law and development field about the manner in which the development process affects women's rights. Some find that the process empowers the men currently in charge. See Nyamu, *supra* note 20, at 396 (explaining that the marketization and commodification of certain facets of the economy, such as land ownership, tend to hurt women in the developing world relative to men, especially male relatives); Nandini Gunewardena, *Reinscribing Subalternity: International Financial Institutions, Development, and Women's Marginality*, 7 UCLA J. INT'L & FOREIGN AFF. 201, 208 (2003) (arguing that most liberal economic development plans implemented by organizations such as the International Monetary Fund further "colonializes" women in the developing world); S.F. Joireman, *The Mystery of Capital Formation in Sub-Saharan Africa: Women, Property Rights and Customary Law*, 36 WORLD DEV. 1233, 1238 (2008) (stating that modernizing land titling systems in Africa could put women in a worse place than under customary law systems because this transition may strip them of the few benefits of the land that they presently enjoy); Mahmood Monshipouri, *Promoting Universal Human Rights: Dilemmas of Integrating Developing Countries*, 4 YALE H.R. & DEV. L.J. 25, 42 (2001) (stating that structural adjustment programs "have routinely imposed unbearable and unjust burdens on the most powerless people of the developing world: women"); Berta E. Hernandez-Truyol, *Sex and Globalization*, 11 HARV. LATINO L. REV. 173, 174 (2008) (discussing the disproportionate negative social conditions suffered by women and how this can be exacerbated by globalization and economic development). Other works note that women benefit as societies become more developed. See Eric Neumayer, *Globalization, Women's Economic Rights and Forced Labor*, WORLD ECON. 1510, 1531 (2007) ("Our quantitative analysis of a global sample size suggests that women in countries that are more open to trade enjoy better economic rights and there is less incidence of forced labor in countries more integrated into global markets than in countries that are more closed."); Cao *supra* note 66, at 366 (discussing the correlation between women's rights and development, but assuming "that economic development, in the long run, translates into better protection for human rights than other indicators, such as ratification by states of human rights treaties.").

⁷⁰ See, e.g., Kerry Rittich, *Transformed Pursuits: The Quest for Equality in Globalized Markets*, 13 HARV. HUM. RTS. J. 231, 254 - 55 (finding that market transformations seeking privatization and liberalization often times harm women). *But*

most view porous women's rights as *the effect* of poverty and not its *cause*. Maybe—as our theoretical treatment and empirical analysis suggest—promoting gender equality spurs growth while subjugating women might actually frustrate development.

3.1. *The Economics of Laws that Discriminate against Women*

We demonstrate, using a law and economics approach,⁷¹ that sexist laws encourage actors, both men and women, to adopt behaviors that hinder development. While it is generally understood that discrimination makes little economic sense,⁷² we find that gender inequality is unique because it undermines how *families* participate in the marketplace. Fundamentally, the family structure operates akin to a business because it allows actors to exploit numerous firm-level benefits, including economies of scale (e.g., buying products more cheaply in bulk), divisions of labor, and ac-

see Okezie Chukwumerije, *Peer Review and the Promotion of Good Governance in Africa*, 32 N.C.J. INT'L L. & COM. REG. 49, 96 (2006) (mentioning in short that "African women have historically suffered from marginalization in term of their legal rights, educational opportunities, participating in public life, and participation in economic life. This has had an adverse effect both on the material conditions of African women and also on the overall economy of the continent.").

⁷¹ An economics approach is useful because it assesses societal institutions in a manner that explains aggregate group behavior, producing predictions about systemic (in)efficiencies. At its heart, economics assumes that actors behave rationally, meaning that they tend to choose strategies from all available options, which likely produce the greatest benefits while minimizing costs. How an actor assesses these costs and benefits is dependent upon the institutions under which one operates. If large groups of actors operate under similar conditions, they will likely behave similarly. Gender inequality is often the product of institutions to which rational actors conform their behaviors, producing predictable results.

⁷² Neil G. Williams, *Offer, Acceptance, and Improper Considerations: A Common-Law Model for the Prohibition of Racial Discrimination in the Contracting Process*, 62 Geo. Wash. L. Rev. 183, 188 n. 28 (1993) ("Racial discrimination results in highly inefficient uses of society's human resources. Tolerating racial discrimination is tantamount to condoning a type of economic waste."). For a specific example in the context of lending, see generally, Peter P. Swire, *The Persistent Problem of Lending Discrimination: A Law and Economics Analysis*, 73 TEX. L. REV. 787 (1995). In summary, this article states that because bankers are motivated by earning profit, they should loan money when the transaction is likely profitable. Evidence suggests, however, that some bankers deny loans to African-Americans when they otherwise would loan money to white borrowers. Therefore, discrimination makes little sense because some bankers are foregoing making loans even when traditional quantitative indicators suggest that such loans would be profitable.

tivity specialization.⁷³ In fact, conceptualizing the family as a business undermines a bedrock assumption of economics whereby actors are autonomous and unitary (meaning that an actor's decision-making calculus considers only one's own individual preferences, costs, and benefits).⁷⁴ Instead most people participate in the market as part of a family, making choices with the intent of maximizing collective wealth and wellbeing.⁷⁵ For example, the decision of whether to accept a job in another city is often predicated on factors such as whether one's children can enroll in an adequate school or one's spouse may earn a satisfactory wage. Thus the family structure frames how most people perceive the market and contemplate economic transactions.

However, laws diminishing female economic rights change the costs and benefits of the family structure by placing obstacles in front of those who would otherwise choose to invest or participate in the market. This is problematic because investment is the lifeblood of growing economies—and even stable ones.⁷⁶ Since deci-

⁷³ POSNER, *supra* note 16, at 183 (“The persistence of the family as a social institution suggests to an economist that it must have important economizing properties.”).

⁷⁴ Benjamin Means, *A Contractual Approach to Shareholder Oppression Law*, 79 *FORDHAM L. REV.* 1161, 1169–70 (2010) (“According to standard law and economics...A rational actor takes into account all available information and picks the best means of accomplishing her goals...To be rational, one must act upon adequate information to maximize one's own perceived utility unencumbered by relationships with other people and free of any other cognitive biases or limitations.”); see also Tanina Rostain, *Educating Homo Economicus: Cautionary Notes on the New Behavioral Law and Economics Movements*, 34 *L. & SOC'Y REV.* 973, 976–77 (2003) (explaining that rational actors are expected to pick a course of action that produces that greatest possible utility).

⁷⁵ See Ann Laquer Estin, *Love and Obligation: Family Law and the Romance of Economics*, 36 *WM. & MARY L. REV.* 989, 999–1000 (1995) (explaining that the concept of rational actors can be expanded through the lenses of a family whereby actors bargain and make decisions together).

⁷⁶ See Leonce Ndikumana, *Financial Determinants of Domestic Investment in Sub-Saharan Africa: Evidence from Panel Data*, 28 *WORLD DEV.* 381, 381 (2000) (noting that investment has been shown to be critical for economic development); Jan Misun and Vladimir Tomsik, *Does Foreign Direct Investment Crowd in or Crowd out Domestic Investment?*, 40 *E. EUR. ECON.* 38, 42 (2002) (“It is generally accepted in the economics literature that investment is a key variable determining economic growth”). Economies develop when the private sector invests. For instance, a firm that endeavors to open a large factory must often contract local construction firms to build its installation. This usually employs local workers to staff its operations, who then spend their earnings on local goods and services. This infusion of capital starts the “multiplier” effect, wherein the same dollars are reused many times, benefitting numerous people and, in effect, growing the capital beyond its

sions to invest are neither random nor constant,⁷⁷ the potential for economic growth is maximized when laws and institutions encourage people to invest resources.⁷⁸ Depriving women of economic rights has the reverse effect by (1) incentivizing those who would prefer to invest to approach the market overly cautiously, (2) reducing the sum of investable property, (3) discouraging women from investing their sparse resources, and (4) eliminating efficient checks and balances on spending and investing.

For example, because investment is inherently a gamble—as those who put up capital always risk losing some or the entire principal—the likelihood that one invests depends upon how much one stands to lose. The greater the potential harm, the less likely an investor proceeds.⁷⁹ This is particularly true for those with scant expendable incomes.⁸⁰ If a man's spouse and family are

face value. The value of a unit of currency can thus render greater benefits than its face value if spent in a vibrant market place. It is also true that actors can elect to not invest or recycle their money, rendering the opposite recessionary effect. Ultimately, actors have the option of spending money or saving money. When money is saved, the supply of available capital on the market diminishes. Should enough money not be invested, it can become scarce to the point of causing economic retraction.

⁷⁷ See Ndikumana, *supra* note 76, at 397 (suggesting that States with efficient institutions incentivize investment and, in turn, development). For example, countries with highly developed banking industries, legal systems, skilled workers, and sturdy infrastructure reduce transaction costs and increase an investment's rate of return. See, e.g., Stephen Knack & Phillip Keefer, *Institutions and Economic Performance: Cross-Country Tests Using Alternative Institutional Measures*, 7 *ECON. & POL.* 207 (2006) (discussing the importance of property rights for investment and growth). On the other hand, De Soto's seminal research on lesser-developed countries found that underdeveloped institutions suffocate investment. For instance, underdeveloped land titling and registration institutions prevent land "owners" from proving that they do, in fact, own their land. Assets without clear title cannot be leveraged as collateral to secure a bank loan. Hernando De Soto, *The Mystery of Capital: Why Capitalism Triumphs in The West and Fails Everywhere Else*, at 40 (2003) ("Without this legal framework of property rights people can effectively do business only with those whom they know or their family.").

⁷⁸ The process by which a sum of money invested is worth more to the firm and target society than its face value is known as the "multiplier." William J. Baumol & Alan S. Binder, *MACROECONOMICS: PRINCIPLES AND POLICY*, 180 (8th Ed. 2001).

⁷⁹ See Nathan M. Jensen, *NATION-STATES AND THE MULTINATIONAL CORPORATION: A POLITICAL ECONOMY OF FOREIGN DIRECT INVESTMENT* 2 - 3 (2006) (demonstrating that investors prefer to pursue foreign direct investment opportunities in democracies because they provide a safer, less-risky terrain than autocracies).

⁸⁰ See Samuel L. Popkin, *THE RATIONAL PEASANT*, 18 (1979) (finding in a study of rural Vietnam, that those in poorer regions consider, and engage in, investment

entirely dependent upon his income, the sole male wage earner will likely engage only in overly conservative economic activities since a bad investment could devastate his family. For example, women in developing nations are commonly forced to work in the *non-wage earning* agricultural sector.⁸¹ In these societies, families perceive potential investments as being *costlier* than those living in societies where secondary sources of incomes lessen the risks of a failed investment, depressing the rate of investment.

Limiting female economic rights also creates few incentives for women to build wealth. Discriminatory intestacy and inheritance laws, for instance, disincentive women from engaging in wealth creation since women cannot directly receive or retain earnings rendered in the event of their husband's death.⁸² Likewise, women have less incentive to become a small business owner if their husbands can claim and control the resulting revenue.⁸³ Said differently, discriminatory laws encourage women who would otherwise become active in the market to forebear, considering that they can only reach a small portion of a transaction's benefits. And those earnings can be claimed and squandered by her husband.⁸⁴ Thus a rational actor accounting for her own, or her family's, best interest will have little reason to risk scarce assets when the cost of investing outweighs any limited, expected returns, discouraging greater market activity.

opportunities like in Western countries. Indeed, actors engage in economic transactions when the investment should render adequate returns, considering the nature of the risk. Naturally, "peasants" are more likely to forebear from investing when resources are scarce because of the increased risks).

⁸¹ See, e.g., Megan Berry, *A Woman's Worth: Accounting for Women in the Global Market*, 37 DENVER J. INT'L L. & POL'Y 465, 473 (2009) (stating that because women in African often are not given education or job training, often the only opportunity women have to earn money is through the informal agriculture market).

⁸² See Jelili A. Omotola, *Primogeniture and Illegitimacy in African Customary Law: The Battle for Survival of the Culture*, 15 IND. INT'L & COMP. L. REV. 115, 116 ("Primogeniture has been in existence in Africa since the early times. It permits only male issues to inherit the property of a person who dies intestate.").

⁸³ See Michael Kevane, *WOMEN AND DEVELOPMENT IN AFRICA: HOW GENDER WORKS*, 31 (2004) (stating that women "who want to become an entrepreneur will think twice. Her husband will have first rights to all of her profits.").

⁸⁴ See, e.g., Sihlongaonyane, C.N. 470/2013A, at 8 - 9 (discussing a Swazi common law rule which identifies the man as the sole administer of marital property).

A third factor is that when women lack economic rights, half of the population is functionally barred from investing.⁸⁵ Seminal research by the economist Hernando De Soto found that lesser developed countries are impeded from developing due to the amounts of “dead capital” found therein.⁸⁶ De Soto’s primary theory concerns the lack of written land titles in developing countries, which prevents landowners from proving good title.⁸⁷ Absent proof of ownership, landowners can rarely obtain loans and thus invest, resulting in stunted development.⁸⁸ In a similar fashion, customary law bestows women a right to license land for the purposes of farming and cultivation, but bars outright ownership.⁸⁹ And without the right to alienate land, all land controlled by women is removed from the marketplace,⁹⁰ diminishing a country’s overall sum of investable assets and attendant rate of investment.⁹¹ In other words, permitting women to occupy and use land, but barring outright ownership, acts as a market regulation stunting investment without providing a reciprocal benefit.

Furthermore, it appears that providing women with at least some authority over family income serves as a check and balance on spending, which helps to cultivate economic growth. Commentators note that, in societies harboring severe gender inequality, women are more likely to spend resources on socially productive goods and services (when given the ability to spend resources). The common explanation is that since women are more frequently tasked with household chores, agricultural production, and child rearing, they invest in goods benefiting the entire family.⁹² Like-

⁸⁵ Sawaya, *supra* note 54.

⁸⁶ See HERNANDO DE SOTO, *THE MYSTERY OF CAPITAL: WHY CAPITALISM TRIUMPHS IN THE WEST AND FAILS EVERYWHERE ELSE* 40 (2003) (“Dead Capital exists because . . . converting a physical asset to generate capital—using your house to borrow money to finance an enterprise, for example—requires a very complex process.” However, “80 percent of the world is undercapitalized; people cannot draw economic life from their buildings (or any other asset) to generate capital.”).

⁸⁷ *Id.* at 153 (“Nearly every developing and former communist nation has a formal property system. The problem is that most citizens cannot gain access to it.”).

⁸⁸ *Id.* at 40.

⁸⁹ Lastarria-Cornhiel, *supra* note 46, at 1321.

⁹⁰ Nyamu, *supra* note 20.

⁹¹ De Soto, *supra* note 86.

⁹² See Shana Hofstetter, *The Interaction of Customary Law and Microfinance: Women’s Entry into the World Economy*, 14 WM. & MARY J. OF WOMEN & L. 337, 341 (2008) (“[G]ender creates a difference in the range of social benefits accruing from

wise, research also suggests that men are more likely to spend money on goods benefiting solely themselves.⁹³ In fact, men are probably more likely to spend family money on capricious activities precisely because women lack a vote, veto, or even voice. Thus expanding the range of family actors who can control resources from beyond men to also their wives—who generally serves as a proxy voice for their children—increases the socially beneficial uses of family resources.

3.2. *The Case of South Korea*

This truism's corollary is also accurate; encouraging women to become full players in the marketplace can unleash a nation's full economic potential. In South Korea, for example, economic growth overcame poverty only after women entered the market.⁹⁴ As background, during both Korea's *Chosun* period (1392-1897) and Japanese colonialism (1910-1945), women were subjugated, as poverty and inefficiency prevailed.⁹⁵ Korea historically adhered to a Confucian culture emphasizing *namjon yobi*, or "honored men and subservient women."⁹⁶ A strict legal hierarchy resulted in which

the loan . . . [F]amilies benefited more when the women controlled the loan money. Loans to women have a greater impact on household expenditures and the education levels of female children. Child survival increases twenty times more and child nutrition improves by 4 to 8% more than with loans to men.").

⁹³ See Radhika Coomaraswamy, *Identity Within: Cultural Relativism, Minority Rights and the Empowerment of Women*, 34 GEO. WASH. INT'L L. REV. 483, 504 (2002) ("Women often enhance the welfare of the family if given control of the family finances. Studies have shown that husbands often keep up to 90% of their earnings for their own consumption, while a wife and mother would likely spend the majority of her earnings on the children.").

⁹⁴ Many factors can be credited for Korea's growth and most of them are not unrelated to each other. To be sure, democratization, export-focused trade policy, and the later investment in human capital were important. However, the growth of Korean investment in relationship to the rise of women as economic actors is remarkable and informative.

⁹⁵ See CHARLES R. FRANK, JR ET AL., SOUTH KOREA 8 (1975) (describing South Korea's porous economic condition). Michael L. Ross, *Oil, Islam, and Women*, 102 AM. POL. SCI. REV. 107, 109 (2008).

⁹⁶ Hyun-key Kim Hogarth, *Globalization and Women's Property Rights in South Korea*, 10 PERSP. ON GLOBAL DEV & TECH. 137, 143 (2010):

Women have long held a low social status in Korean society. Until recently the concept of *namjon yobi* (honoured men and subservient women) was so firmly embedded in Korean people's psyche, both male and

women were seldom considered independent people.⁹⁷ Women had to obtain their husband's or male relative's permission to enter most commercial transactions and other legal arrangements.⁹⁸ And akin to African customary law,⁹⁹ women were excluded from the wage-earning workforce, relegated to the primary sector (i.e., agriculture).¹⁰⁰ While a man could control and collateralize marital assets, women lacked the right to inherit¹⁰¹ or own personal property.¹⁰²

Upon gaining independence after World II, South Korea promoted manufactured exported goods in hopes of reforming the country's stagnant economy.¹⁰³ The demand for labor grew as fac-

female, that it provided a simple explanation for the severe gender inequality that has prevailed in all sectors of society. It was derived from the Confucian ethics and cosmology, which governed every aspect of daily life during the Chosŏn dynasty (1392 - 1910). Under Confucianism, woman had no rights to own or inherit property, which meant financially she had to depend on her father before marriage, her husband after marriage and her eldest son after her husband's death.

; DONG-SOOK SHIN GILLS, *RURAL WOMEN AND TRIPLE EXPLOITATION IN KOREAN DEVELOPMENT* 103 (1999).

⁹⁷ Ross, *supra* note 95, at 109 ("At the turn of the twentieth century, Korea had a highly patriarchal culture: females were not given their own names, girls were separated from boys beginning at age 6, and women were not allowed to enter the streets of Seoul during the daytime.").

⁹⁸ GILLS, *supra* note 96, at 103 (remarking that women "were required by law to obtain the 'permission' (not consent) of their husbands for their public activities, for example, for employment. Any legal arrangement by a wife would be nullified if it was not 'permitted' by the husband.").

⁹⁹ See Pierre Brochu & Louis-Philippe Morin, *Union Membership and Perceived Job Insecurity: Thirty Years of Evidence from the American General Social Survey*, 65 *IND. & LAB. REL. REV.* 263, 267 (2012) (stating that the primary sector (i.e., agriculture) is where most African women today work. The economic emphasis of most developed countries lies in the "tertiary sector" (or service sector), where skilled labor works in industries such as health care, communications, and education).

¹⁰⁰ Kyung Ae Park, *Women and Development: The Case of South Korea*, 25 *COMP. POL.* 127, 132 (1993) ("[T]he proportions of women employed in the primary, secondary, and tertiary sectors in 1963 were 69, 7, and 24 percent, respectively.").

¹⁰¹ Hogarth, *supra* note 96, at 143 ("the law of succession established by the colonial government revoked the previous rights of inheritance for women . . . The modern law of succession under the colonial government, however, precluded female members of the household from any right to inheritance.").

¹⁰² See GILLS, *supra* note 96, at 103 ("while men possessed legal rights to manage, use and even take profits from a wife's property, a woman required her husband's consent even in the disposal of her own property.").

¹⁰³ See Jennifer L. Porges, *The Development of Korean Labor Law and the Impact of the American System*, 12 *COMP. LAB. L.* 335, 337, 351 (1991) (chronicling the severe economic and infrastructure problems plaguing South Korea, which improved

tories were built,¹⁰⁴ which, due to the male population's decline in the Korean War,¹⁰⁵ opened factory doors to women.¹⁰⁶ This caused the textile and clothing industries—also known as the “female manufacturing industries”—to boom, increasing the number of women in the workforce by over 50% from 1960 to 1980.¹⁰⁷ As Korean output increased,¹⁰⁸ for the first time, women became economic actors, achieving degrees of legal protection.¹⁰⁹ Women then sought to harness their money's economic potential, prompting female mutual finance associations and other organizations to emerge.¹¹⁰ And now, in modern times, Korean women often control their family's finances with primary decision-making authority over budgeting and investment,¹¹¹ leading experts to predict that the manner in which women invest will direct the Korean economy.¹¹²

Importantly, the entrance of Korean women into the marketplace substantially altered and improved the country's economy.

during Korean industrialization when the country sought to promote export manufactured goods).

¹⁰⁴ GILLS, *supra* note 96, at 8 (1999).

¹⁰⁵ Hogarth, *supra* note 96, at 143 – 44.

¹⁰⁶ Ross, *supra* note 95.

¹⁰⁷ Park, *supra* note 100, at 132 (noting that the ‘female manufacturing industries’ included “textile and clothing manufacturing, rubber and plastics, electronic goods, shoes, and china and pottery manufacturing.”).

¹⁰⁸ *Id.* (“female manufacturing industries were responsible for 70 percent of total national export earnings in 1975; about 80 percent of the women in the manufacturing sector produced export-oriented products in the 1970s.”).

¹⁰⁹ Barriers to female activity have been largely replaced with government policies designed to encourage female contributions to the marketplace. For example, the Korean legislature guaranteed women full inheritance rights in 1990. Hogarth, *supra* note 96, at 146. Additionally, the Gender-Equality Act in 1987 promised equal employment opportunities regarding recruiting and promotion; Yana van der Meulen Rodgers, *A Reversal of Fortune for Korean Women: Explaining the 1983 Upward Turn in Relative Earnings*, 46 *ECON. DEV. & CULTURAL CHANGE* 727, 728 (1998); see also Suvendrini Kakuchi, *Despite Gains, South Korean Women Still Struggle for Equality*, IPS (June, 29, 2010), <http://ipsnews.net/news.asp?idnews=51994> [<https://perma.cc/LMQ4-ZGPJ>] (“South Korea also has a law that requires the government to support women entrepreneurs and extend financial subsidies to career-interrupted women who want to engage in economic activities.”).

¹¹⁰ Hogarth, *supra* note 96, at 145 (“Korean women have learned about the power of money in the modern times through experience, and have become obsessed with money, seeing it as a means to achieve their liberation.”).

¹¹¹ *Id.* at 144.

¹¹² Yana van der Meulen Rodgers, *supra* note 109, at 727 (“[W]omen's investment choices will, in turn, affect the future productivity of Korea's economy.”).

Keeping in mind that investment and credit is critical for growth, as female economic activity increased, the amount of domestic credit in private and public sectors grew.¹¹³ The private sector alone issued twice as much credit issued from 1960 to 1967.¹¹⁴ Likewise, in 1970, only 12.1% of South Korean GPD was in private investment, but by the early 1980's, the rate grew to 22.2%.¹¹⁵ By the mid-1990's, over a third of Korea's GDP was being reinvested.¹¹⁶ Notably, these development sparked South Korea's historic development; the country climbed out of crippling poverty in the 1960s to currently the world's 13th most productive economy. But as soon as women become marketplace players, the amount of *private* economic activity began to boom suggesting that the cost/benefit analyses of families were changing. It thus seems that, not only are systemic inefficiencies created by gender discrimination, but equality erodes many incentive-based obstacles to investment.¹¹⁷ In the next section, we demonstrate this empirically.

4. EMPIRICAL STUDY

From a research design viewpoint, our analysis is intended to explain whether a significant, causal relationship exists between poverty and sex discrimination—and if so, its nature. There is the possibility that poverty and gender inequality are statistically unrelated and thus have no effect on each other. Likewise their connection could also be “spurious,” meaning that neither phenomenon is causing the other despite appearing correlated.¹¹⁸ For

¹¹³ See YOUNG-IOB CHUNG, SOUTH KOREA IN THE FAST LANE: ECONOMIC DEVELOPMENT AND CAPITAL FORMATION 43 (2007) (describing Korea's strategy at the implementation of its new economic plan to increase investment levels: “[t]o modernize the economy and maintain overall sustained growth at a rapid rate—the country's primary economic goals—South Korea needed large amounts of investment and the ability to allocate them to meet the nation's economic goals.”).

¹¹⁴ *Id.*

¹¹⁵ *Id.* at 52.

¹¹⁶ *Id.*

¹¹⁷ *Id.* at 43.

¹¹⁸ See, e.g., Alissa Pollitz Worden, Andrew Lucas Blaize Davies & Elizabeth K. Brown, *A Patchwork of Policies: Justice, Due Process, and Public Defense Across American States*, 74 ALB. L. REV. 1423, 1436–37 (2011) (providing an example of a spurious relationship for which can be compensated using control variables. Here, the research studies the relationship between quality of representation and

instance, the presence of antiquated and inefficient institutions—which are prevalent in developing nations¹¹⁹—could be the actual cause of both poverty and discrimination.¹²⁰ If this were the situation, then the assumption that sex discrimination is neither causing nor caused by poverty would prove accurate. But it is this article's contention, as described in our law and economics analysis, that gender inequality depresses investment and other important marketplace activities, causing underdevelopment. This is what our empirical analysis is structured to affirm or refute.

4.1. Research Design

We constructed a dataset to investigate the causes of poverty by combining data provided by the World Bank's World Development Indicators¹²¹ and the CIRI Human Rights Data Project.¹²² Our unit of analysis includes every nation in the world from 1981 to 2011.¹²³ Our primary expectation is that sexist laws frustrate the manner in which people invest, leading to poverty and underdevelopment. In light of this theory, we performed two statistical models, the first of which tests the relationship between sexist laws and investment (Model 1) and the second measures sexist laws and poverty's relationship (Model 2). In other words, our analysis uses two separate dependent variables, one for each of the two models since we are seeking to understand the causes of both. Independ-

the nature of the defendant, noting that the type of crimes for which some defendants are more commonly arrested can produce a spurious relationship).

¹¹⁹ See Phillip J. McConaughay, *The Scope of Autonomy in International Contracts and Its Relation to Economic Regulation and Development*, 39 COLUM. J. TRANSNAT'L L. 595, 601 (2001) (defining what constitutes a "developing nation" as a country that lacks institutions that can perform effectively or as intended).

¹²⁰ See Kenneth U. Surjadinata, *Revisiting Corrupt Practices from a Market Perspective*, 12 EMORY INT'L L. REV. 1021, 1071 - 72 (1998) (remarking that investors tend to avoid investing in developing nations due to their inefficient institutions).

¹²¹ *Wbopendata: Stata module to access World Bank databases*, WORLD BANK, <http://data.worldbank.org/developers/apps/wbopendata> [https://perma.cc/9LZD-DEJN] (last visited Feb. 26, 2016).

¹²² *Data & Documentation*, CIRI HUMAN RIGHTS DATA PROJECT, <http://www.humanrightsdata.com/p/data-documentation.html> [https://perma.cc/5TGL-4NMP] (last visited Feb. 26, 2016).

¹²³ Note that the Women's Social Rights variable extends only to 2005, as it was discontinued by CIRI after this year. Note also that data was not available for every nation in every year.

ent variables are all of the factors that might affect, or cause, a dependent variable to change. Here, sex discrimination is the primary independent variable because we are hypothesizing that sexist laws have a powerful yet understudied relationship with the dependent variables, poverty and investment. Thus, our statistical analysis seeks to explain whether there is a relationship between sexist laws and both poverty and investment—and if there is such a relationship, its nature and magnitude.

To accomplish this goal, our empirical analysis is designed to isolate the relationship between poverty and sex discrimination. This isolation is important because unrelated variables can appear related if the research design fails to include whichever variables are actually causing the relationship. For example, the sale of ice cream and crime are correlated, but not because ice cream causes people to break the law. Instead, hot weather causes the rate of both to rise, making ice cream and crime appear linked. To avoid finding such a spurious relationship, our statistical models include numerous independent variables (i.e., control variables) that might be influencing poverty and/or underdevelopment. After controlling for these other causes, if sex discrimination appears strongly related with poverty and investment, then we can deduce that they are actually related to a certain degree of statistical certainty. In fact, we can assume that one variable is likely *causing* the other.

The first model's dependent variable reflects changes in investment, which is measured by the *Domestic Credit to the Private Sector provided by Banks*.¹²⁴ This variable is critical because our theory suggests that sexist laws depress the rate of investment (leading to poverty). Studying the effects of gender discrimination on investment thus provides necessary insights into its ultimate relationship on poverty. The second model's dependent variable is poverty/development (or lack thereof), represented by *Per Capita GDP*. This is because we are suggesting that sexist laws ultimately produce poor economic performance, which can be captured by Per Capita GDP. Each dependent variable is drawn from World Bank data.

The primary independent variable, *women's rights*, is measured by the degree of liberty (or lack thereof) that women enjoy in the

¹²⁴ Domestic Credit to the Private Sector measures financial resources provided to the private sector by deposit taking corporations other than central banks.

public spheres of a given nation. This variable is derived from a dataset by Cingranelli, Richards and Clay, who compiled the Cingranelli-Richards (CIRI) Human Rights Dataset.¹²⁵ We drew three independent variables from the CIRI dataset – Women’s Economic Rights, Women’s Political Rights and Women’s Social Rights – which are all coded on a scale of zero (from least protective of women’s rights/most hostile to women) to three (women granted full and equal access to the same rights and privileges as men).¹²⁶ Women’s Economic Rights per country includes such factors as “equal pay for equal work,” “free choice of profession or employment without the need to obtain a husband or male relative’s consent,” and “the right to be free from sexual harassment in the workplace”. The variable is coded within four categories. The first pertaining to economics rights:

(0) There are no economic rights for women under law, and systematic discrimination based on sex may have been built into the law.

(1) There are some economic rights for women under law, but these rights are not effectively enforced

(2) Women had some economic rights under law, and the government effectively enforced these rights in practice while still allowing a low level of discrimination against women in economic matters.

¹²⁵ The CIRI dataset was created using data from the United States Department of State’s Country Reports on Human Rights Practices. The Human Rights Reports provide detailed information about the worldwide status of women, amongst other human rights concerns, allowing Cingranelli, Richards, and Clay to perform a content analysis of each country’s treatment of women. *FAQ, CIRI HUMAN RIGHTS DATA PROJECT*, <http://www.humanrightsdata.com/p/faq.html> [<https://perma.cc/9J4D-LJ55>] (last visited Mar. 12, 2015). Note that for rights dealing with freedom from extrajudicial killing, disappearance, torture, and political imprisonment, CIRI also utilized Amnesty International’s Annual Report. However, our article does not make use of these CIRI variables.

¹²⁶ Women’s Economic Rights and Women’s Political Rights run from 1981 – 2011. Women’s Social Rights runs from 1981-2005. We thus look at the entirety of 1981 – 2011 in the two models we run using Women’s Economic Rights and Women’s Political Rights as the independent variables, and examine only to 2005 in the models that utilize Women’s Social Rights and the additive Women’s Rights variable.

(3) All or nearly all of women's economic rights are guaranteed by law. In practice, the government fully and vigorously enforces these laws in practice.¹²⁷

The second, women's Political Rights, includes rights such as the right to vote, the right to join political parties, and the right to run for and hold elected public offices. The variable is coded as follows:

(0) Women's political rights were not guaranteed by law during a given year.

(1) Women's political rights were guaranteed in law, but severely prohibited in practice.

(2) Women's political rights were guaranteed in law, but were still moderately prohibited in practice.

(3) Women's political rights were guaranteed in both law and practice.¹²⁸

Women's Social Rights is a catch-all category containing a number of rights including rights relating to family law such as the right to initiate a divorce and the right to inherit property as well as freedom from genital mutilation, freedom from forced sterilization, and the right to travel abroad. This variable is coded as followed:

(0) There were no social rights for women in law and that systematic discrimination based on sex may have been built into law.

Women had some social rights under law, but those rights were not effectively enforced.

Women had some social rights under law, and the government effectively enforced those rights in practice while still allowing a low level of discrimination against women in social matters.

All or nearly all of women's social rights were guaranteed by law and the government fully and vigorously enforced those laws in practice.¹²⁹

We then created an additive variable, combining all three variables into one, more universal, Women's Rights variable.

As previously mentioned, statistical models can misrepresent a studied relationship (e.g., finding that a strong relationship be-

¹²⁷ *Data & Documentation*, CIRI HUMAN RIGHTS DATA PROJECT, <http://www.humanrightsdata.com/p/data-documentation.html> [https://perma.cc/5TGL-4NMP] (last visited Mar. 12, 2015).

¹²⁸ *Id.*

¹²⁹ *Id.*

tween two variables exists when they are, in fact, unrelated) if the researcher omits the actual causal variable(s) from the study. To avoid this error, we added control variables, such as *Democracy*. This is substantially important control variable because democracy is considered a prominent causal force in inciting development. Research has found that economies grow better in democracies because foreign investors feel more secure investing in democracies, the nature of democratic governments provide more public goods, and local leaders are less likely to steal or otherwise be corrupt.¹³⁰ We were thus concerned that a women's rights variable would act as a proxy for democracy, rather than control for an independent effect of female discrimination. This study's democracy variable was adapted from the Polity IV dataset. Countries received scores ranging from 10 (perfect democracy) to -10 (perfect autocracy). The variable was calculated by measuring certain qualities that are common to either government type, such as the range of freedoms that one has or the amount of checks and balances on the executive branch leader.

We also control for several economic variables. For example, high *inflation* diminishes investment because market confidence decreases when their money's value drops relative to the goods and services they seek to purchase. Others lose resources necessary to invest when inflation increases.¹³¹ Therefore, we added a variable from the World Bank, *GDP deflator*, reflecting the rate of inflation. Similarly, we considered variables pertaining to the availability of credit, including *domestic credit provided by the financial sector*, *domestic credit to private sector by banks* and *domestic credit to private sector by financial corporations* because—all things being equal—investment should be greater when capital is cheaper.¹³²

¹³⁰ See Jensen, *supra* note 79, at 2 - 3 (noting that foreign investors are more likely to prefer investing in democracies); Bruce Bueno de Mesquita, Alastair Smith, Randolph Siverson, & James D. Morrow, *THE LOGIC OF POLITICAL SURVIVAL* (2004) (discussing that democracies incentivize the creation of public goods and other behaviors that encourage economic growth and development).

¹³¹ See Ndikumana, *supra* note 76, at 382 ("External debt, public sector borrowing from the domestic financial system, the black market premium, and inflation negatively affect domestic investment.").

¹³² See William J. Baumol & Alan S. Binder, *MACROECONOMICS: PRINCIPLES AND POLICY*, 164 (8th 2001) ("The real interest is the determinant of investment . . . When interest rates rise, investment falls, and it is not hard to see why. Businesses must borrow to finance most investment, and the interest rate dictates how much firms must pay for that privilege.").

Also considering that consumer and investor confidence likely play a strong role in individual investment behavior, we included a variable for *GDP growth*. Indeed, people are more willing to risk their money in the market when the market seems filled with promise.¹³³ To account for the overall robustness of a country's GDP we accounted for *GDP in current US Dollars*.

Additionally, international economic phenomena can infuse capital and thus create growth. For instance, countries that are more tied into the world's economic system are more likely to develop at a steady rate in line with world growth. The corollary is also true that more isolated nations tend to experience difficulties developing. Thus we included several international variables, such as a country's receptiveness to international trade (or *economic openness*), measured by trade as a percentage of GDP.¹³⁴

We added a handful of additional potentially causal variables, such as *central government debt (percentage of GDP)* since government spending can crowd out domestic investment.¹³⁵ Keeping in mind the uniqueness of oil producing states, we added a variable measuring a nation's *oil rents* as percentage of their GDP.¹³⁶ Finally, as a proxy for industrialization and stability, we included a variable measuring the *infant mortality* rate. It is critically important to control for this concept since women's rights is likely linked to development. Thus it would be problematic to measure women's rights without adding a control for a nation's level of development.

Our model controls for the passage of time using the variable *years* since it is possible that most states have seen improvement in their infrastructures and economies in the past several decades. As a result, we want to make sure that whatever results we see are being driven by how each state treats citizens on the basis of gender, not merely a general influence of modernization.

¹³³ See Ndikumana, *supra* note 76, at 397 (stating that "per capita GDP growth and international trade flows have positive effects on domestic investment.").

¹³⁴ *Id.*

¹³⁵ *Id.* at 384.

¹³⁶ This is because oil deposits give oil states a lucrative source of revenue oftentimes insulating them from the typical effects of poverty on development. A classic example is Saudi Arabia, which has a high per capita GDP, yet low levels of democracy, education, and other social development indicators. Indeed, with respect to development and women's rights, the oil industry has been shown to render unique results. See Ross, *supra* note 95 (finding that many of the conclusions that scholars have made about Islam's effect on women is likely caused, instead, by the oil industry).

We tested the time series data using a heavily modified version of an ordinary least squares (“OLS”) analysis. Oftentimes, OLS is the appropriate test for linear relationships (such as this).¹³⁷ For the present study, though, a modified version of OLS is the proper statistical tool, since the analysis of large collections of data spanning many years is not without risks. Indeed, the models use what is known as time series data, which contains a series of observations collected over a period of time.¹³⁸ One of the benefits of a time series model is that it cannot only accurately pinpoint past instances of a nation’s economic fortunes waxing or waning when women gained greater liberty and freedom, but it also provides more accurate and predictive models.¹³⁹ Some of the potential problems with this model include heteroskedasticity¹⁴⁰ or data that is “trended” too strongly with the passage of time. This occurs when a studied relationship (e.g., the connection between sexist laws and poverty) changes over the years; if the world is generally treating women better and becoming richer—although the two

¹³⁷ To be more specific, it is appropriate for a linear relationship without multicollinearity. A linear relationship exists when the relationship can be represented by a straight line, as in every unit input has the same output. Multicollinearity is a problem whereby the independent variables are related to each other, which skews results.

¹³⁸ Time series models are used in a variety of fields that endeavor to track a phenomenon over the course of years. For instance, time series models first gained prominence in forecasting economic conditions. See generally John R. Freeman, *Granger Causality and the Time Series Analysis of Political Relationships*, 27 AM. J. POL. SCI., 327 (1983); Charles I. Jones, *Time Series Tests of Endogenous Growth Models*, 110 Q. J. ECON. 495 (1995). More recently, they have also been used in such diverse areas as mapping recidivism rates and, in a particularly novel case, to map the rate of African American and Hispanic enrollment in medical and law schools. John Gruhl & Susan Welch, *The Impact of the Bakke Decision on Black and Hispanic Enrollment in Medical and Law Schools*, 73 SOC. SCI. Q. 485 (1990); Majib Bani-Yaghoub, J. Paul Fedoroff, Susan Curry & David E. Amundsen, *A Time Series Modeling Approach in Risk Appraisal of Violent and Sexual Recidivism*, 34 L. & HUM. BEHAV. 349 (2010).

¹³⁹ See Bani-Yaghoub et al., *supra* note 138 (stating that a “prediction of temporal variations of an observation is a natural ability of time series modeling”).

¹⁴⁰ Heteroskedasticity is the phenomenon of a variable’s variability (or the range of values within that value) being unequal over the range of the variable being used to predict it. This occurs when the standard deviations of a variable are non-constant over a period of time. Linear regression models, including models centered on OLS regressions, assume normal distribution of standard errors. This means that OLS models run using heteroskedastic data can produce results with biased standard errors. While one need not disregard all results drawn from such models, it is safe to say that one should approach drawing conclusions from OLS models run with heteroskedastic data with caution.

events are unrelated—then we must statistically account for this possibility.¹⁴¹ Thus we modified an OLS regression using quadratic regressions, which statistically isolate our variables from the general trend of time; or, one could say we made them stationary.¹⁴² We then ran a series of statistical treatments on our data, controlling for the effects of heteroskedasticity and time-dependent effects oftentimes plaguing time-series data. We then needed to add additional statistical steps in order to alleviate any concerns that we were drawing inferences from biased results. In order to remedy this situation, we included the Huber-White estimator of variance in our models and obtained robust (heteroskedasticity-consistent) standard errors.¹⁴³ These empirical methods rendered powerful deductions, which are likely undistorted by intervening variables and the passage of time.

4.2. Results

Our results are strong and promising.¹⁴⁴ In interpreting these results, the coefficients indicate the direction and magnitude of the relationships between the independent and dependent variables, and the *R-squared* identifies the statistical strength of *the entire mod-*

¹⁴¹ Said differently, it is possible that certain results are being driven by a cumulative effect caused by the passage of time.

¹⁴² To make our data stationary, we tested each of our variables using quadratic regressions, to see which variables contained time-trend patterns. We then detrended those variables and produced predicted values. These predicted variables were predictions of the value of each variable, divorced from the trends caused simply by the passage of time.

¹⁴³ Dursun Peksen, *Does Military Intervention Help Human Rights?*, 65 POL. RES. Q. 558 (2012); Halbert White, *A Heteroskedasticity-Consistent Covariance Matrix Estimator and a Direct Test for Heteroskedasticity*, 48 ECONOMETRICA 871 (1980). This additional step will allow us to better trust the results of our models, and thus draw more accurate conclusions from those results.

¹⁴⁴ *Women's Rights* was found to be strongly statistically significant in the predicted direction with each of the two independent variables. Even controlling for other factors that can, and do, spur economic growth, we can see that the more rights women have in society, including full participation in the marketplace and full protection of the law, the greater the wealth per citizen in society. Similarly, the more women are viewed and protected as full participants in the marketplace, the greater the sums of money that banks will be willing to provide as credit to the society. Our other independent variables generally likewise perform in predicted directions. For additional information, please see the appendix to this piece.

*el.*¹⁴⁵ In the first model [See Table 1], we find that *women's rights* was significant on societal levels of investment, which is a key determinant of poverty. Indeed, women's rights was significant at better than a .01 level, meaning that there is less than a one percent chance that this statistical relationship is coincidental. This also indicates that as women gain rights, the level of investment grows. The converse is also true; throughout the years, a diminishment of women's rights leads to significant reductions in national levels of investment. We tested this proposition among all countries—both developed and developing—and many years. This model also controlled for most intervening factors that could muddle the analysis.¹⁴⁶ In fact, most control aspects of development were found to be significant in the expected directions. Of special importance was the fact that women's rights remained significant even after controlling for *democracy* and the proxy for development. This suggests that the status of women has a very special effect on investment that can be separated from other things often related to

¹⁴⁵ The degree of significance of each variable is reflected by the number of asterisks attached to the coefficient. A statistically significant relationship indicates that—to whichever degree reflected by the asterisks—the two variables are correlated by some level greater than chance. They, in fact, likely have a causal relationship. Whether a coefficient is positive or negative represents the direction of the relationship; for example, a positive coefficient between women's rights and investment indicates that increasing women's rights leads to greater investment (while a negative coefficient would mean that increasing women's rights depresses investment). The results were instructive.

¹⁴⁶ Natural resources, openness to trade, a growing economy and credit provided by banks and the financial sector are all significantly and positively associated with a high per capita GDP. We also see infant mortality significantly and negatively correlated with per capita GDP. This, too, stands to reason as a nation with a robust economy will have those conditions necessary to ensure the health and well-being of those newly born. The fact that debt has no significant relationship with per capita GDP is also rational. The past several decades have seen both nations with thriving economies and nations with weak economies accumulate debt or engage in deficit spending. As a result, there should not be a strong relationship between these factors.

One puzzling relationship is that between the per capita GDP of a nation and the amount of domestic credit to the private sector. It could be that in a more healthy economy, the financial sector and banks are contributing capital to the private sector, while in a less healthy state we see alternate entities, such as foreign exchange companies and private, non-bank money lenders, engaging in the lion's share of lending practices. The significant, negative relationship between trade and the amount of credit provided by banks may require further analysis, as other indicators in Model 1 do perform in expected directions. In sum, this analysis suggests that, similar to the Korean case study, investment is substantially hindered when women are unable to exercise the same economic rights as men.

more egalitarian societies. It thus seems clear that oppressing women substantially affects economic behavior, promoting poverty and underdevelopment. Adding confidence to our study was that the model's overall strength was strong and the control variables acted as expected.

Also importantly, in the second model, *women's rights* was significantly related to poor economic performance. We assumed that this would be the case since depriving women of fundamental rights harms investment. But it seemed important to run these tests proving the second step, stunted growth and poverty, actually follow. Indeed, our second model's results clearly indicate – at a high level of statistical significance – that sexist laws actually cause poverty by undermining efficient economic behavior. These findings should contribute to the prior understandings of gender inequality.

It can also be argued that the impact of improving women's economic or legal standings in a nation is unlikely to have an immediate impact on a nation's economic wellbeing. In other words, it will take time for the changes in the legal protection of women to impact a nation's economic fortunes. To address this concern, we ran the models again, but this time adding a lag to our independent variable of interest, women's rights. Model 3 uses Per Capita GDP as the dependent variable, while model 4 uses Bank Credit. These models continue to affirm our original theory.¹⁴⁷ Thus, our research seems to support the theory that developing countries are often mired in poverty precisely because they enact and enforce sexist laws – rather than female subjugation being an unfortunate byproduct of poverty.

5. POLICY SUGGESTIONS

This article's findings suggest that sexist laws must be reformed in order to catalyze development and economic growth. This is, with little doubt, a difficult task. Societies progress in slow,

¹⁴⁷ These models, too, are derived with robust standard errors. Each model continues to perform in accordance with our hypotheses. A noteworthy change does take place in model 3; infant mortality rates, already significant using the unlagged women's rights additive variable, has become more strongly so, from proving significant at the .10 level to being significant at the .05 level.

path-dependent ways. The inertia of change is often predicated on what previously occurred.¹⁴⁸ Thus societies only rarely evolve in ways that are in contradiction with the recent past.¹⁴⁹ However, like in the example of South Korea, sometimes an event, new policy, or phenomenon sparks change.¹⁵⁰ Thus, the challenge is to find policy proscriptions that can reverse the course of women's economic rights.

The South Korean case study suggests that even moderate increases in women's rights can improve the economy.¹⁵¹ Indeed, the entrance of women into the wage-earning sector was empowering since an earned income, despite its meagerness, provided women with the capacity to participate in the market. Korean women eventually took control over home finances, built investment networks, and catalyzed South Korea's growth through investment. A study of the garment industry in Bangladesh reached similar conclusions. Historically, Bengali women were largely barred from the wage-earning sector, considered dependent upon their husband or other male relative for financial caretaking.¹⁵² But after the rise of the female manufacturing industries, "[t]he most frequently cited benefit of their employment from their personal perspective related to the greater sense of self-reliance it gave them, the lessening of the burden on their families and their ability to stand on their own feet."¹⁵³ This suggests that increasing the rights and roles of women in the workplace often inspires women to participate in the market. And by incentivizing women to grow as economic actors, the economy can be expected to follow suit.

Furthermore, some organizations in lesser-developed countries issue microcredit, which are small loans bearing minimal interest rates. A study of the Grameen Bank in Bangladesh found that par-

¹⁴⁸ Douglass C. North, INSTITUTIONS, INSTITUTIONAL CHANGE AND ECONOMIC PERFORMANCE, 6 - 9 (1990) (explaining that institutions and societies often develop in path dependent ways).

¹⁴⁹ *Id.*

¹⁵⁰ *Supra* notes 94 - 117 and accompanying text.

¹⁵¹ *See supra* Section 3.2 (using South Korea as an example to illustrate the relationship between economics and gender inequality).

¹⁵² *See* Naila Kabeer and Simeen Mahmud, *Globalization, Gender and Poverty: Bangladeshi Women Workers in Export and Local Markets*, 16 J. INT'L DEV. 93, 1085 (2004) ("[S]ociety . . . defines men as the primary, and even sole, breadwinners and privileges male access to employment, women historically have been defined, and have experienced themselves, as dependents.").

¹⁵³ *Id.*

icipating local women generally experience social and economic empowerment; “as the number of years of borrowing increased, not only did women's income rise, but women also increased their negotiating skills, social network affiliations and knowledge—all of which enhance decision-making abilities.”¹⁵⁴ Importantly, the bank’s lending structure grouped women together, which formed investment networks and developed a culture of investment and empowerment.¹⁵⁵ Interestingly, women are more likely than men to invest in socially useful activities, as the education levels, especially amongst young girls, increased in these women’s villages.¹⁵⁶ Though microcredit foundations are not without problems and critics,¹⁵⁷ case studies from Bangladesh, Cameroon¹⁵⁸ and elsewhere support the Grameen results, suggesting that female investment networks have the potential to erode social stigmas and barriers that have limited female economic participation.

Another suggested method is that educational programs can help subjugated women to understand the various methods available to assert constitutional protections or other rights.¹⁵⁹ In fact,

¹⁵⁴ Alexandra Bernsek, *Banking on Social Change: Grameen Bank Lending to Women*, 16 INT’L J. POL., CULT. & SOC. 369, 377 (2003).

¹⁵⁵ *Id.* at 378

¹⁵⁶ *Id.* at 380. Hofstetter, *supra* note 92 at 341.

¹⁵⁷ See, e.g., Rashmi Dyal-Chand, *Reflection in a Distant Mirror: Why the West Misperceived the Grameen Bank’s Vision of Microcredit*, 41 STAN. J. INT’L L. 217, 266 (2007) (discussing how the Grameen Bank may actually be making worse some of the problems it seeks to cure); James D. Greenberg, *Microfinance, Law, and Development: Case Study in Mali*, 30 ARIZ. J. INT’L & COMP. L. 135, 160 – 61 (2013):

Poverty is a complex phenomenon, and solutions to it are unlikely to be found solely in neoliberal faith in free markets or the power of entrepreneurial spirit. When we look at real people making livings in real places, such as Mali, the limitations of microfinance as a solution become all too apparent. Due to drought, flood, locust, and economic shocks, livelihoods are already risky. For credit to make a difference, the return on investments must generate not merely enough to pay off principle and interest, but to turn profits. If investments fail to do this, then a loan become a liability, a debt that must be paid by other means.

¹⁵⁸ Lotsmart Fonjong, *Fostering Women’s Participation in Development through Non-Governmental Efforts in Cameroon*, 167 GEOGRAPHIC J., 223, 228 (2001).

¹⁵⁹ See Sawaya, *supra* note 54, at 329 – 330 (“[I]n order for women in Sub-Saharan Africa to exercise their economic rights effectively, they need to challenge not only the structure, substance, and application of the law obstructing their ability to assert their rights, but the culture which prevents them from exercising their rights. Rights education programs are the most effective means of assisting women in the development of capabilities . . .”).

some women may be, in part, self-excluded from the marketplace if they rarely receive messages suggesting that their involvement is socially appropriate. Thus education programs are possibly a necessary first step to overcome such economic barriers. This process could be especially influential if women are inspired to take a more prominent role in the marketplace.

Other potentially effective ideas include subsidizing childcare, as has been done in Colombia.¹⁶⁰ This provides women, who are often tasked with primary parenting responsibilities, the capacity to participate in market activities, especially outside of the home.¹⁶¹ Another issue concerns the manner in which women are more likely to suffer from certain medical and health issues.¹⁶² In fact, elevated health related issues are seen as a general impediment to African development, though women seem to disproportionately suffer.¹⁶³ Recognizing and improving women's health issues in developing nations is an objective that can be pursued by both local and international actors. Also suggested is that promoting primary and secondary education in girls—a rate that is very low in developing nations—can help inspire confidence and ability to demand and exercise economic rights.¹⁶⁴ Furthermore, the most difficult, though likely effective, goal would be to increase female representation in government.¹⁶⁵ Currently, in most developing

¹⁶⁰ See Ana Revenga & Sudhir Shetty, *Empowering Women is Smart Economics*, 49 FIN. & DEV. (2012), available at <http://www.imf.org/external/pubs/ft/fandd/2012/03/revenga.htm> [<https://perma.cc/B3SS-3NRN>].

¹⁶¹ *Id.*

¹⁶² See J.M. Spectar, *The Hydra Hath But One Head: The Socio-Cultural Dimensions of the AIDs Epidemic & Women's rights to Health*, 21 B.C. THIRD WORLD L.J. 1, 22–23 (2001) (discussing the need to “strengthen women's right to health,” in considering its link to poverty).

¹⁶³ *Id.* at 10 (citing as an example of the disproportionate suffering that “female children are three times more likely to suffer from malnutrition than are male children . . .”).

¹⁶⁴ See Pauline Rose, *Why Girls' Education Can Help Eradicate Poverty*, REUTERS (Sept. 25, 2013, 4:03 PM), <http://www.reuters.com/article/2013/09/25/us-why-girls-education-idUSBRE98O13D20130925> [<https://perma.cc/XHQ9-6DSD>] (“Providing girls with a quality education also equips them with the confidence to confront people in power and challenge the inequalities that still exist for girls and women worldwide.”).

¹⁶⁵ See, e.g., Khaled A. Beydoun, *Fast Tracking Women into Parliament Seats in The Arab World*, 17 SW. J. INT'L L. 63, 65 (2011) (“Arab women still find themselves at political point zero, if you will, standing outside the hardened walls of the region's parliaments. At best, the political engagement of Arab women is meager.”).

countries, women are subjugated because the men make the rules. However, despite the present barriers to legislative office, it appears that concentrated movements in certain develop countries and regional organizations are increasing female political participations.¹⁶⁶ Thus, all things considered, there are a multitude of steps that can be taken to help encourage women's rights and, in turn, catalyze growth and development.

6. CONCLUSION

This article responds to the phenomenon that sexist laws are more commonly enacted and enforced in impoverished regions. These types of statutes oftentimes limit the ability of women to participate equally in the workplace and at home. Some literature assumes that women can expect greater fundamental rights as soon as their region experiences economic development, other works suggest that such development can actually further harm women; this work responded to this debate and addressed questions about the general correlation between sex discrimination and poverty by seeking to understand why gender inequality is commonly associated with underdevelopment in the first place.

Using a law and economics approach, it was asserted herein that the incentive structures created by sexist laws can offer valuable insights into this relationship. Notably, it was found that gender inequality harms the family structure. This can devastate chances of development because the family structure can be viewed as an effective economic unit, providing incentives for ac-

Arab women remain effectively disenfranchised from the salient processes that shape governance in their respective states.”).

¹⁶⁶ Aili Mari Tripp, *Creating Collective Capabilities: Women, Agency, and the Politics of Representation*, 19 COLUM. J. GENDER & L. 2019 (2010) (“Women have been integral to efforts to advance themselves in the political arena . . . In various African countries such as South Africa, Namibia, Uganda, Kenya and Sierra Leone, there are 50/50 movements advocating that women claim half of all parliamentary seats. International and regional bodies, including the Inter-Parliamentary Union, the U.N. Beijing Conference on Women, the Southern African Development Community (SADC) and others have also encouraged the adoption of measures to promote women's parliamentary representation. Some regional organizations, like the aforementioned SADC, set targets for their member states: for example, women representatives in SADC member states are to hold fifty percent of legislative seats by the year 2015.”).

tors to efficiently engage in the market. Undermining this nearly guarantees poverty. Thus development can seem to fail if the ills of gender inequality are made a low priority. Instead, we find that the act of empowering women can exercise a nation's economic potential.

APPENDIX

Table 1.

	1	2
<i>Independent Variables</i>		
<i>Women's Rights</i>	39.41119*** (13.34093)	28.05303*** (6.376041)
<i>Oil</i>	.2933776*** (.0326015)	.0009037 (.0133665)
<i>Debt</i>	-.0945822 (.1023681)	-.01068077*** (.0397518)
<i>Trade</i>	.0728462*** (.0180877)	-.0207998*** (.0058454)
<i>Inflation</i>	.0537509*** (.0169404)	.0057595 (.0072137)
<i>GDPGrowth</i>	.0495747*** (.0179673)	-.0017346 (.0067361)
<i>GDPCurrentUS</i>	.0304031* (.0158829)	-.0178557*** (.0064027)
<i>NetDomesticCred</i>	-.0192364 (.0176823)	.0252747*** (.00072905)
<i>CreditPrivateSect</i>	-.1733496*** (.034288)	.9018988*** (.0100658)
<i>BankCredit</i>	.2105853*** (.0349387)	
<i>CreditFinSec</i>	.0547317*** (.0192123)	.0029077 (.0088637)
<i>InfantMortality</i>	-.1317861* (.0720413)	-.0184667 (.0266175)
<i>Year</i>	-7.628327** (3.477336)	-2.31218 (1.408348)
<i>GDP Per Capita</i>		.0317637*** (0060557)
<i>Constant</i>	53.78736 (74.91095)	-86.11763 (26.07593)
Number of Observations	3494	3494
R-Squared	0.0550	0.8473
Probability > F	0	0
*p<0.10, **p<0.05, ***p<0.01		

Table 2.

	3	4
<i>Independent Variables</i>		
<i>Women's Rights</i> (Lagged)	33.73373** (13.52577)	29.10194*** (6.615226)
<i>Oil</i>	.2795961*** (.0329854)	.0102465 (.0135272)
<i>Debt</i>	-.041538 (.1012737)	-.0812174** (.0359284)
<i>Trade</i>	.0684233*** (.0182039)	-.0220915*** (.005729)
<i>Inflation</i>	.052716*** (.0171454)	.0082261 (.0071107)
<i>GDPGrowth</i>	.0428638** (.0182093)	-.0056666 (.0066714)
<i>GDPCurrentUS</i>	.0311972* (.0160296)	-.0187319*** (.0062911)
<i>NetDomesticCred</i>	-.0229714 (.0178041)	.0223271*** (.0070754)
<i>CreditPrivateSect</i>	-.1401564*** (.0359504)	.9095722*** (.0097778)
<i>BankCredit</i>	.1848014*** (.035112)	
<i>CreditFinSec</i>	.0565342*** (.0191489)	-.0014364 (.0085673)
<i>InfantMortality</i>	-.1996533*** (.0732934)	-.0068764 (.0269008)
<i>Year</i>	-7.32842** (349622)	-3.286055* (1.400131)
<i>GDP Per Capita</i>		.0268347*** (.006012)
<i>Constant</i>	49.24913 (78.00897)	-73.99375 (26.95648)
Number of Observations	3393	3393
R-Squared	0.0515	0.8536
Probability > F	0	0

*p<0.10, **p<0.05, ***p<0.01

a. Results from unadjusted Ordinary Least Squares (OLS) Regression Analysis

	1	2
Independent Variables		
<i>Women's Rights</i>	39.41119*** (14.504)	30.40639*** (5.634732)
<i>Oil</i>	.2952402*** (.327491)	.0107739 (.0127739)
<i>Debt</i>	-.00768 (.1019524)	-.073159* (.0397518)
<i>Trade</i>	.0780566*** (.0179702)	-.015995** (.0070048)
<i>Inflation</i>	.0529565*** (.016767)	.0068177 (.0065397)
<i>GDPGrowth</i>	.0587127*** (.0174961)	.0023541 (.0065397)
<i>GDPCurrentUS</i>	.032018** (.0161692)	-.0160517** (.0063017)
<i>NetDomesticCred</i>	-.0212622 (.0175258)	.0255871*** (.0068229)
<i>CreditPrivateSect</i>	-.1801529*** (.0438348)	.9031983*** (.0076236)
<i>BankCredit</i>	.2183553*** (.0434426)	
<i>CreditFinSec</i>	.0496952** (.0198867)	.0022935 (.0077576)
<i>InfantMortality</i>	-.1200403* (.0727445)	-.0135942 (.0283763)
<i>Constant</i>	1528.432 (112.2698)	70.17368 (43.77973)
Number of Observations	3494	3494
R-Squared	0.0542	0.8442
Probability > F	0	0
*p<0.10, **p<0.05, ***p<0.01		