

Do Gendered Laws Matter?

Marie Hyland, Simeon Djankov, and Pinelopi Koujianou Goldberg¹

Abstract

We use a 50-year panel of gendered laws for 190 countries to examine whether laws and legal change are associated with several measures of women's empowerment. Cross-country analysis reveals that those country attributes that are significant predictors of legal gender equality (e.g., religion, legal origin, geography) evolve slowly, if at all. Therefore, the path to meaningful legal reform may be long and arduous. But such reform matters. We find – in both cross-country and time-series analyses - that greater legal equality between men and women is on average associated with a lower gender gap in opportunities and outcomes, with fewer female workers in positions of vulnerable employment, and with greater political representation for women. These associations are robust to conditioning on a country's stage of development as proxied by income per capita. However, they mask considerable heterogeneity across countries. We use three country case studies from the Democratic Republic of Congo, India, and Spain, to demonstrate how individual countries' experiences may deviate from average trends.

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¹ Hyland: World Bank (e-mail: mhyland@worldbank.org); Djankov: London School of Economics and Peterson Institute of International Economics (e-mail: sdjankov@lse.ac.uk); Goldberg: Department of Economics, Yale University (e-mail: penny.goldberg@yale.edu). We thank Marie Dry and Liang Shen for their research assistance, as well as Tea Trumbic and the WBL team for their helpful comments. The findings, interpretations, and conclusions expressed in this paper are entirely those of the authors. They do not necessarily represent the views of the World Bank and its affiliated organizations, or those of the Executive Directors of the World Bank or the governments they represent.

Introduction

The question of whether laws matter for economic outcomes lingers in several fields of Economics – perhaps sadly, given how much blood has been shed over the centuries in pursuit of legal reform. In development economics, the thesis that the law matters was posited by Max Weber in 1958 and has been part of the economics of growth ever since North’s 1981 forceful historical account of how nations develop. Yet, it was not until the 1990s, when countries in Eastern Europe opened up, reformed their laws, and experienced faster growth than their peers, that Weber was vindicated². In the area of women’s emancipation, there is a long history of debate on the relevance of gendered laws — laws that discriminate on the basis of gender. The year 2020 marks the 100th anniversary of the Nineteenth Amendment to the United States Constitution, which granted women the right to vote. This legislative change was, at the time, questioned by many. Cascio and Shenhav (2020) note that up until the 1940s, it was widely speculated that the female vote would do no more than duplicate the male vote³. This reaction reflects a widely held view that *de jure* changes are often not informative about *de facto* changes.

In this paper, we put this view to the test, while focusing on a specific type of laws, i.e., laws that affect women’s economic opportunities. In an earlier paper (Hyland, Djankov, and Goldberg 2020), we introduced the World Bank’s *Women, Business and the Law* (WBL) index as a measure of legal equality between men and women. In the present paper, we ask whether this *de jure* measure of equality correlates in a meaningful way with several *de facto* measures of women’s economic empowerment. Our focus is on correlation, not causation, i.e., we do not attempt to establish that legal reforms have a casual impact on economic outcomes. Such a conclusion is tempting in light of some of the empirical results we will present in the course of our analysis, but it inherently involves an uphill battle with endogeneity, which is better fought using country case studies and specific reform episodes rather than the cross-country framework of our analysis.

² Prior to that, the importance of law for development had been questioned in light of the East Asian growth experience that was by most accounts unrelated to legal reforms (see, for example, Pistor and Wellons 1999).

³ Other authors have studied the gradual influence of the female vote on levels and distribution of government expenditure (Lott and Kenny, 1999; Miller, 2008; Carruthers and Wanamaker, 2015; Kose, Kuka and Shenhav, 2019).

Instead, our goal is more modest in that we aim to establish whether a *de jure* measure of legal gender equality has predictive power for *de facto* measures of women's empowerment.

The WBL index charts the inequality in legislation that a woman faces as she navigates her working life, from the time she can enter the labor force through to retirement. Countries receive a score ranging from zero to one hundred based on the level of legal gender equality. A score of one hundred implies that there are no legal inequalities between men and women in the areas covered by the index. The most recent data shows that the global average WBL score in 2019 is 75.23, implying that, on average, women around the world have approximately three quarters the rights of men when it comes to laws affecting their economic opportunity. Only eight countries in the world - Belgium, Canada, Denmark, France, Latvia, Luxembourg, Iceland and Sweden - receive a perfect score.

There are several reasons to be a-priori skeptical about the relation of a *de jure* measure of gender equality to actual experience, especially in developing countries. A common finding in the literature is that deeply entrenched social norms⁴ render legal reforms ineffective. In Pakistan, Holden and Chaudhary (2013) and Ahmad, Batool and Dzuguelewski (2016) find that despite a legal change, women were not able to claim their entitled inheritances due to factors such as lack of education and forced marriages. Gedzi (2012) highlights a similar result in Ghana, where reforms to inheritance laws led to few positive changes in terms of women's inheritance. An issue that comes up frequently when studying legal reform of property rights in Africa is legal pluralism (Djurfeldt 2020). Ali, Deininger and Goldstein (2014) note that the coexistence of different types of customary and formal laws can lead to a situation in which formal laws are disregarded if informal codes are less costly to execute—as is often the case. Reversion to informal courts, headed by village elders, leads to resolutions that favor men. Women's reluctance to resort to formal courts is also the subject of several studies. Vatuk (2013) notes that victims of domestic violence and other kinds of marital dissonance may not even consider turning to the state for support.

⁴ The importance of norms and culture is emphasized in the work of Fernandez (2013), Fernandez and Fogli (2009), Fernandez, Fogli and Olivetti (2004), and Ashraf, Bau, Nunn and Voena (2020) among others, as well as in the overview chapter of Bertrand (2011) that examines the factors shaping gender identity and behavior.

But, on the other side of the argument, this discussion of whether formal laws matter neglects the issue of interdependencies. Williamson and Kerekes (2011) find that the law provides a useful backstop mechanism. Aldashev et al. (2012) discuss how changes to formal laws have a reformatory effect on informal laws, for example, by strengthening land claims in India (Rao, 2007) and sub-Saharan Africa (Hillhorst, 2000), and by granting women divorce rights in Saheli countries (Kevane, 2004).

There is also some evidence directly linking specific laws to better outcomes for women. Agarwal (2003) documents a link between women's land rights and their possibility of leaving a violent spouse. Deininger et al. (2013) show that the reform of India's Hindu Succession Act increased daughters' likelihood of inheriting land. Similarly, reforms to the Succession Law in Rwanda made it more likely for women to leave their marriages while still receiving permanent rights to land, and increased women's ability to resist the customary practice of polygamy (Daley, Dore-Weeks and Umuhoza, 2010). In the context of Rwandan land reform, Ali, Deininger and Goldstein (2014) find that formalization of land rights increased women's investment in soil conservation. For the United States, there is evidence that divorce laws affect household savings behavior and female employment (Voena, 2015), and that expanding women's economic rights has measurable impacts on women's patent holding (Khan, 1996) and educational attainment (Geddes, Lueck and Tennyson, 2012). Combs (2005) shows that the passage of the 1870 British Married Women's Property Act caused women to hold a greater proportion of their wealth in a form of property that they could legally control during marriage. Combs (2006) shows that the Act caused a dramatic increase in the bargaining power of married women, an increase in the amount of property they owned, and a change in their investment behavior. Crisman et al (2016) provide evidence that laws do matter, as legislation passed in Burkina Faso banning female genital mutilation saw a significant drop in the practice.

Against this background, we contribute to the existing literature by exploiting panel data from 190 countries to investigate how gendered laws relate to women's empowerment. We proceed in three steps. First, we ask what explains the considerable variation across countries in the legal treatment of women. To this end, we relate the WBL index to a number of country attributes that the literature has suggested are correlated with social and economic outcomes. We find that such attributes have high explanatory power in our context. Strikingly, attributes that do not vary at all or change slowly

over time, such as a country's legal origin, form of government, geographic characteristics and dominant religion, explain a very large portion of the variation across countries. This finding suggests that the path to legal equality between men and women may be long. Nevertheless, our data also show that the past five decades have seen considerable progress towards legal gender equality. Gendered laws do evolve, suggesting a role for legal reforms.

In a second step, we investigate whether legal gender discrimination correlates with several measures of women's economic empowerment. We find that lower discrimination is associated with a lower gender gap in opportunities and outcomes, with fewer female workers in positions of vulnerable employment, and with greater political representation for women. These results are robust to conditioning on the level of economic development as proxied by GDP per capita. Moreover, they are robust to conditioning on country fixed effects, where the association between laws and outcome measures is identified based on variation over time within each country, rather than on cross-country comparisons. Our findings suggest that at a minimum, gendered laws, while slow to change, do matter for economic outcomes, and that *de jure* measures of legal discrimination are informative about women's actual status in an economy.

Thirdly, we present three case studies illustrating the pathway to reform of gender-discriminatory laws. We use these studies to demonstrate that, while our empirical findings reveal a strong and robust positive association between legal gender equality and women's empowerment *on average*, there is considerable heterogeneity across countries in the relationship between *de jure* and *de facto* gender equality. Understanding the sources of this heterogeneity is an important area for future research.

The remainder of the paper is structured as follows: Section 1 explores the cross-country variation in legal gender equality, and discusses the relationship between country characteristics and gender-discriminatory laws. Section 2 examines how gendered laws correlate with women's economic opportunities and outcomes, both in the cross section and time series. Section 3 presents three case studies - outlining the reform of gendered laws in the Democratic Republic of Congo, India, and Spain. Section 4 concludes.

1. Explaining gendered laws

We start by asking which factors explain the variation in legal gender equality across countries. We investigate the relationship between specific country characteristics and the level of legal gender equality, as measured by *Women, Business and the Law*, using an OLS model, represented by the following equation:

$$WBL_{i,t} = \alpha + \beta X_{i,t} + \delta GDP_{i,t-3} + \phi_t + u_{i,t} \quad (1)$$

$WBL_{i,t}$ represents the WBL index score for country i in time t ; $X_{i,t}$ represent the various country characteristics that we correlate with the WBL index score, as discussed in section 1.1; $GDP_{i,t-3}$ is a proxy for income level, and represents real per capita GDP at time $t-3$. Per capita GDP is measured with a three-year lag to minimize concerns about simultaneity bias (other lags or the contemporaneous level produced similar results). The term ϕ_t represents year fixed effects; $u_{i,t}$ is the error term. Country-level fixed effects are not included as several of the country characteristics included in the regression are fixed over time and would, therefore, be perfectly colinear with the country fixed effects. The coefficient β is our main coefficient of interest. It represents the relationship between country characteristics and the WBL index score.

The following subsection explains which variables are included in the regression analysis and how each of them is measured.

1.1 Data description

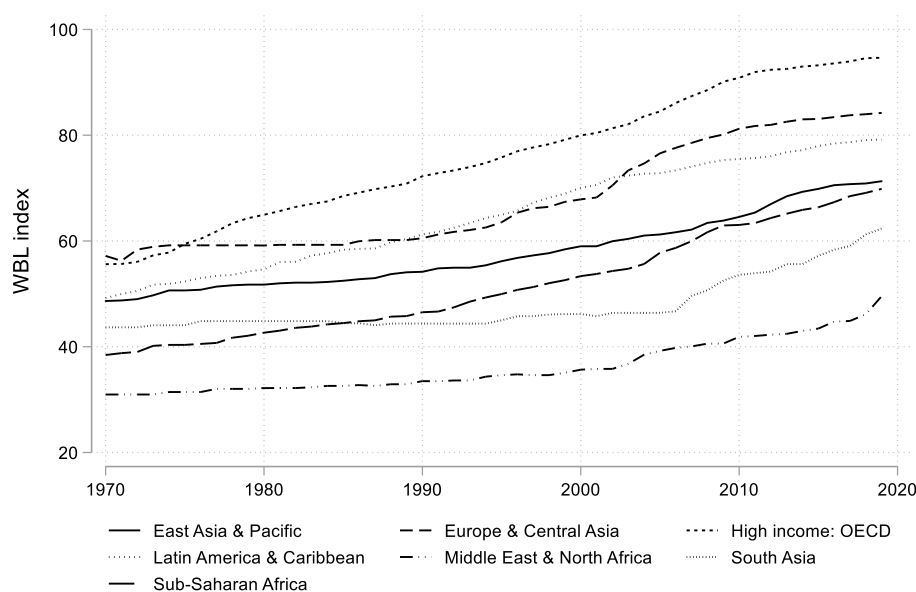
Legal gender equality (Women, Business and the Law index)

Our analysis uses the data presented by the Women, Business and the Law index to measure legal equality between genders. The index charts the legal inequalities that a woman may face as she navigates her working life, from the time she enters the workforce through to her retirement. The index is structured around eight indicators - *Mobility, Workplace, Pay, Marriage, Parenthood, Entrepreneurship, Assets* and *Pension*. There are four or five data points underlying each indicator, these are responses to questions such as “Does the law prohibit discrimination based on gender in employment?”, which is the first data point in the *Workplace* indicator.⁵ Each indicator is scaled from zero to 100, and the aggregate WBL index is an unweighted average of the underlying eight

⁵ For a full list of indicators and data points included in the WBL index, refer to Table A2 of the appendix.

indicators. The WBL data covers the period from 1970 to 2019.⁶ A detailed discussion of the WBL database and methodology can be found in Hydland, Djankov and Goldberg (2020). Regional progress in the WBL index is displayed in Figure 1 below, reproduced from Hydland, Djankov, and Goldberg (2020). This figure illustrates the regional heterogeneity in legal gender equality, as well as the uneven pace at which progress towards equality has been made.

Figure 1: Regional progress towards legal gender equality, 1970-2019



Source: Women Business and the Law.

Geography

Motivated by earlier studies that have found a strong correlation between geography and measures of economic development, we explore the association between geographic characteristics and legal gender equality using data from Nunn and Puga (2012).⁷ Nunn and Puga note that the historic impacts of geographic characteristics are difficult to estimate because locations can be impacted by historical events linked to geography and also by the direct contemporaneous impacts that geography might have. The authors provide a measure of ruggedness of terrain as their main explanatory variable, but also collect information on a range of other characteristics, including land area, longitude and latitude, percentage of each country’s land with fertile soil, percentage of

⁶ Data available at <https://wbl.worldbank.org/en/wbl-data> [Accessed: Nov 18, 2020].

⁷ Data available at: <https://diegopuga.org/data/rugged/> [Accessed: Nov 18, 2020].

each country with tropical climate, average distance to the nearest ice-free coast, gem quality diamond extraction per square kilometer and an estimate of the numbers of slaves exported between 1400 and 1900.⁸

Religion

Data on religion are obtained from Alesina et al. (2003). The data contain information on ethnic, linguistic and religious fractionalization for approximately 190 countries in 2001. From their detailed tables, we extract information on the predominant religion in each country. The level of aggregation of religion varies across countries; for example, forms of Protestantism are sometimes aggregated, while in other instances, they are not. We use the broader definitions and, to further reduce the number of categories of religion for our empirical analysis, we also group other categories; for example, various forms of orthodox religions are grouped into a single category.

Legal origin

Data on legal origin are from La Porta, Lopez-de-Silanes and Shleifer (2008), and expanded to a larger set of countries in Djankov, Glaeser, Perotti and Shleifer (2020). As La Porta, Lopez-de-Silanes and Shleifer (2008) explain, two broad legal traditions can be identified - common law and civil law. Within civil, there are four subdivisions - French, German, Scandinavian and socialist. They note that while countries' legal systems can be a hybrid, containing elements of multiple traditions, one tradition generally dominates. The dominant legal tradition is captured in their database.⁹ As most socialist countries have gone back to their original legal routes after the fall of the Berlin Wall, Djankov et al (2020) updates the legal origin dataset to reflect this evolution.

Form of government

Polity data, which measures characteristics of democracy or autocracy in governing institutions, is compiled by the Center for Systemic Peace.¹⁰ Polity is captured on a scale from -10 to +10, where the lowest score refers to hereditary monarchy, and the highest score to consolidated democracy.

⁸ This variable is also included for countries from which no slaves were exported; for all countries the variable is calculated by taking the natural logarithm of the number slaves exported per square kilometer of land area, plus one. This measure is discussed in greater detail, including a description of why this functional form is appropriate, in Nunn (2008).

⁹ Data available at: https://scholar.harvard.edu/files/shleifer/files/economiccon_data.xls [Accessed: Nov 18, 2020].

¹⁰ Data available at: <http://www.systemicpeace.org/inscrdata.html> [Accessed: Nov 18, 2020].

In general, scores from -10 to -6 capture autocratic regimes, from -5 to +5 are anocracies, and scores from +6 to +10 refer to democracies. The Polity data have been coded and published under several research rounds, the current round—Polity5—includes 167 countries and covers the period from 1990 to 2018. The Polity data have become the most widely used resource for monitoring regime change (Marshall and Gurr 2020). In addition to the variable capturing polity, we also include a variable from the same data source that measures the durability of a political regime; that is, the number of years since the last significant change (a change of three points or more) in authority characteristics.

1.2 Empirical findings

The estimation results from equation (1) are summarized in Figure 2, which presents the relationship between the WBL index and country characteristics in the form of standardized coefficients. The full regression results are reported in Table A1 in the Appendix. These results enable us to examine which characteristics are significantly associated with discriminatory laws and their relative importance.

The geographic characteristics included in the estimation are all significantly strongly correlated with the WBL index score. While research by Nunn and Puga (2012), amongst others, establishes the important relationship between geographic characteristics and economic development, the correlations between geographic characteristics and the WBL index hold after controlling for real income per capita. Figure 2 shows that countries where the land is more rugged, and where the land area is larger have lower levels of legal gender equality. Legal equality is higher for countries that are located farther from the equator (latitude), whereas legal equality is declining in distance eastward from the Prime Meridian (longitude). Where soil quality is more amenable to productive agriculture, gender equality is higher. Equality is decreasing in the proportion of a country that is classified as desert or tropical, while it is increasing in the average distance from the ice-free coast. Additionally, countries that were historically associated with more intensive diamond extraction and with the exporting of a greater number of slaves have lower levels of legal equality between genders.

Gender equality is also correlated with the predominant religion in a country. Relative to countries where the main religion is Catholicism (the reference category), countries that are predominantly Buddhist, Orthodox or non-religious have higher gender equality. Figure 2 also shows that

countries that are predominately Muslim are characterized by significantly lower levels of gender equality. That gender equality is lower in Muslim countries is not surprising. In most majority Muslim countries in our sample, there are restrictions in place on women's rights to inheritance; predominately Muslim country are also less likely to have equal pay legislation in place, while they are more likely to place restrictions on the industries in which women can work. While several such restrictions documented in the WBL data are sometimes attributed to countries' compliance with Sharia law, numerous authors (including Mashhour 2005, Ross 2008 and Barlas 2019) have argued that it is patriarchal cultures, not Islamic law, that often lie behind gender inequalities, and that achieving greater gender equality within the parameters of Sharia law is possible.

Figure 2 shows that legal origin is a significant predictor of legal gender equality. The reference category in the regression is the English Common law system, and the results show that economies with French or Scandinavian legal origins have more gender equal laws, while gender equality in economies whose laws are of a German legal origin is lower, although the coefficient is only marginally statistically significant.¹¹ Details of the legislations underlying the WBL index scores show that legal systems based on common law adhered—in some cases for several centuries—to the doctrine of *couverture*, whereby a woman's legal rights were, upon marriage, subsumed by her husband. As such, it is unsurprising that countries whose legislative texts are based on the English Common law would have lower levels of gender equality relative to French or Scandinavian based legal systems.

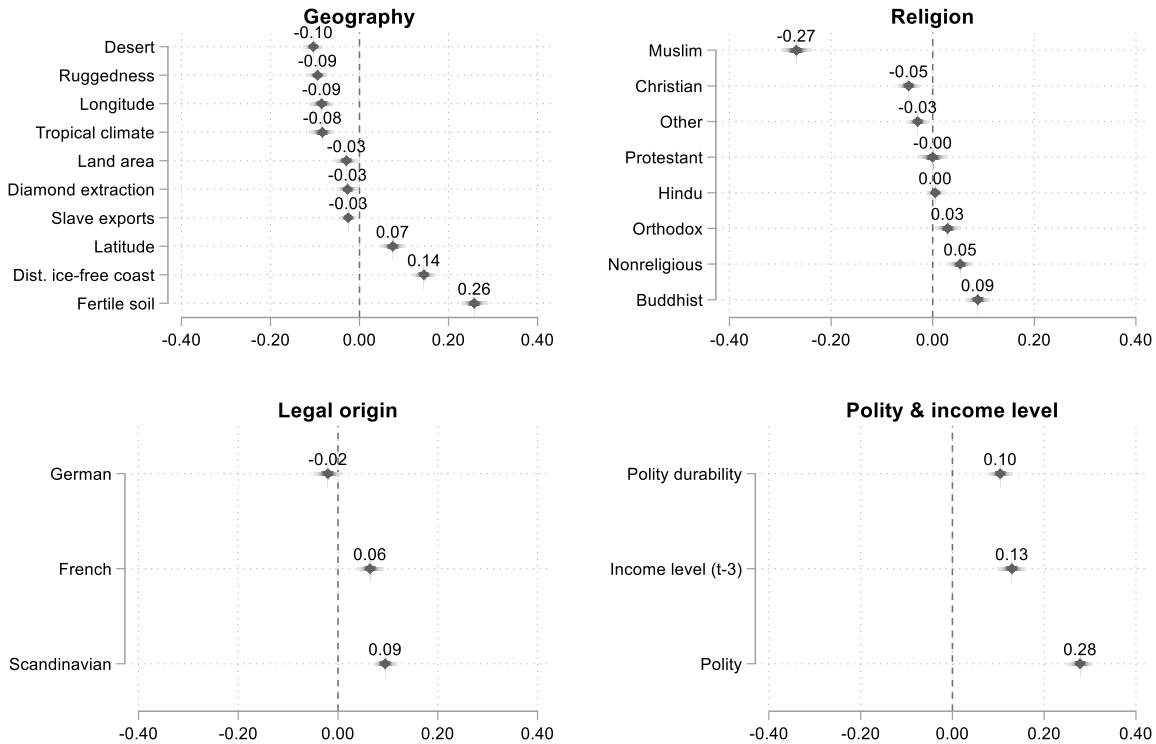
The coefficient on the polity variable is positive and statistically significant, showing that more democratic systems of government are associated with greater legal equality between men and women. A priori, it is not entirely clear what relationship would be expected here. On the one hand, democratic forms of government are associated with more rights and freedoms in general but, on the other hand, socialist regimes have traditionally granted women more rights in certain areas. For example, in the early 1970s, women in socialist countries of Europe and Central Asia faced less discriminatory laws than women in any other regions. This finding may in part be explained by the work of Htun and Weldon (2011) who outline how socialist countries liberalized family law in the 20th century to allow women to participate in the workforce and to constrain the

¹¹ This relationship only emerges after other characteristics are included in the regression; uncontrolled averages show that the average WBL score is higher in countries with German-based legal systems, compared to countries whose legal system is based on common law.

influence of religion. Independent of the form of government, the results in Figure 2 show that government stability (the durability of the polity regime) is positively associated with gender equality under the law.

The results in Figure 2 also show that, even after the country characteristics in Figure 2 are accounted for, a country’s income level (as proxied by per capita GDP) is a significant predictor of legal gender equality in the areas measured by WBL.

Figure 2: Legal gender and country characteristics



Note: The figure presents standardized regression coefficients from the estimation of equation (1). The dependent variable is the WBL index score. All groups of variables are included in a single regression, along with year fixed effects. The R-squared for the regression is 0.702. The figure displays the estimated coefficients and associated confidence intervals. The full regression results are presented in Table A1 of the Appendix.

1.3 Summary

The analysis of the determinants of cross-country differences in gendered laws leads to two main insights. First, the regression model we present explains a large part of the observed cross-country variation – we note that the adjusted R-squared in the regression reported in Table A1 is around

0.7, despite the fact that we do not include country fixed effects. Second, almost all of the statistically significant characteristics presented in Figure 2 either evolve slowly (such as measures of governance and religion), or not at all (such as legal origin or geography). The only exception is lagged GDP per capita, suggesting that growth contributes to more equal laws for women. However, the impact of time-invariant characteristics on laws remains large and significant, independent of whether we condition on GDP per capita. This suggests that at any point in time, a large part of a country’s legal environment relevant to women is pre-determined and may therefore be hard to change in the short or medium term.

However, these cross-country patterns notwithstanding, considerable progress has been made over time. Gendered laws do evolve as Figure 1 shows, suggesting a potential role for legal reforms and interventions. The evolution of gendered laws is discussed in detail in Hyland, Djankov and Goldberg (2020). One highlight of the research is the notable increase in women’s rights that has occurred over the past five decades. However, as illustrated in Figure 1, the pace of reform has been uneven—some regions, most notably Sub-Saharan Africa and high-income OECD economies, have made greater progress than others. There has also been greater focus on reforming certain areas of the law; for example, discriminatory legislation affecting a woman’s ability to work has evolved at a fast pace; reform to laws that impact a woman’s pay on the other hand has been slower.

2. *Do laws matter?*

Thus far, we have established that legal gender equality is significantly correlated with country characteristics including legal origins, geography, religion and the protection of human rights. In the introduction, we sketched a picture of the divergent views on whether legislative measures translate to actual empowerment; we now turn to explore this issue in the context of the *Women, Business and the Law* index.

We model the relationship between the WBL index and the metrics of economic inclusion and empowerment as outlined in equation (2) below:

$$Y_{i,t} = \alpha + \beta WBL_{i,t} + \delta GDP_{i,t-3} + \gamma_i + \phi_t + u_{i,t} \quad (2)$$

$Y_{i,t}$ represents the various metrics of women’s economic inclusion and empowerment for country i in time t ; WBL represents the WBL index score, also in time t ; $GDP_{i,t-3}$ is a proxy for income

level and represents real per capita GDP at time $t-3$. Per capita GDP is measured with a three-year lag to minimize concerns about simultaneity bias. The terms γ_i and ϕ_t represent country and year fixed effects; $u_{i,t}$ is the error term.

The coefficient β represents the association between gender equality and women's economic outcomes across the world, accounting for unobservable differences between countries and time periods, which are captured by the fixed effects, as well as a country's level of economic development.

2.1 Measures of women's economic empowerment and inclusion

We use three broad measures of women's economic inclusion and empowerment: an aggregate measure of the gap between women and men in outcomes; women's propensity to be in positions of vulnerable employment as opposed to wage and salaried jobs; and women's representation in politics. In the Appendix (Table A5-A7) we explore associations with several more measures, with results reinforcing the conclusions of this section.

The first metric—the Global Gender Gap index score—is provided by the World Economic Forum (WEF). Since 2006, the WEF has, on an annual basis, published its Global Gender Gap Index. Importantly for our purposes, this index focuses on outcomes, i.e., *de facto* measures rather than laws. It seeks to measure gaps in outcomes and opportunities between men and women in the areas of economic participation and opportunity; educational attainment; health and survival; and political empowerment. It tracks countries' advancements in closing gender-based outcome gaps and, in its most recent publication, has covered 153 countries. By focusing on gender-based gaps in outcomes, rather than outcomes in levels, their methodology abstracts from countries' levels of economic development and facilitates comparisons between countries. Furthermore, because their methodology has remained constant since the index was first published in 2006, the index also tracks progress towards equality over time. As explained in their methodology (WEF, 2019), there are three concepts underlying the calculation of the index. The first is a focus on gaps rather than levels; as noted above, this disassociates the index from countries' levels of development. The second concept is a focus on outcomes rather than inputs; as such, the index does not track government policies, laws, norms, or other such factors affecting women's outcomes. The third concept is a focus on equality rather than empowerment. Therefore, the index does not reward

countries where the outcomes of women outperform that of men (for example, in the area of educational attainment).

The four areas covered by the index (economics, health, education and politics) are tracked using fourteen indicators, details of which are provided in Table A3 of the Appendix. Points for each sub-index are calculated as a weighted average of the relevant indicators. Weights are calculated based on the variability of each indicator, such that indicators with lower variability are given a greater weight. This means that countries with, for example, a large gap in primary school enrollment, where most countries have achieved near parity, will be more heavily penalized. The overall Gender Gap index score is a simple average of each of the four sub-indices. According to the most recent data from the WEF (World Economic Forum, 2019) the current population-weighted average index score is 68.6, meaning that the 68.6 percent of the gender gap in opportunity and outcomes has been closed, with a further 31.4 percent remaining to be closed in order to reach gender parity.

The second metric of women's empowerment and economic inclusion that we use is the percentage of female workers who are in positions of vulnerable employment. This data series is available from the World Bank's Gender Data Portal, and represents estimates produced by the International Labor Organization (ILO). Vulnerable employment refers to two categories of self-employed workers: own-account workers (that is, self-employed without any employees) and contributing family works (also referred to as unpaid family workers). The data are derived mainly from national labor force surveys. As noted in the meta data, while a high proportion of paid employees in an economy is indicative of a high level of economic development, a high proportion of own-account workers signals a greater reliance on agricultural employment and slow growth in the formal economy. Similarly, if a large proportion of the total workforce are classified as contributing family workers, this suggests slow development and job growth. Own-account workers and contributing family workers are the most likely groups to fall into poverty. They are also least likely to have access to social protection and safety nets or to be in a position to save, leaving them particularly exposed to future shocks. According to data for 2019, women are more likely than men to be in vulnerable employment: the global average (unweighted) is 41 percent for women, compared to 36 percent for men. While global averages show that women are more likely to be in vulnerable employment than men, the pattern varies by income level: while women are

more likely than men to be in vulnerable employment in low and lower-middle income economies, in upper-middle income and high-income economies, the opposite holds.

Our third metric of progress towards gender equality is women's representation in parliament. The source of this data is the Inter-Parliamentary Union (IPU).¹² It represents the proportion of seats held by women in single chambers—in the case of unicameral parliaments, or lower chambers—in the case of bicameral parliaments. This is an important metric of women's progress, and one where progress has been slow. The IPU data show that, on average, 22 percent of seats in parliament are held by women, and in only two countries in the world—Bolivia and Rwanda, are more than half the seats held by women, where women's representation is at 53 percent and 61 percent, respectively. In general, countries that have succeeded in closing the aggregate gender gap, have made substantial progress in achieving near-parity in parliamentary representation. However, this is not always the case; for example, Germany is ranked 10th in the world according to the WEF's index, but fewer than one third of seats in the German parliament are held by women according to the data for 2019. Women's representation in politics is, above all, a matter of democracy and human rights. But women's representation in parliament may also have important outcomes for women's rights more broadly as research has shown that countries with greater female representation in parliament are more likely to pass laws on sexual harassment, rape, divorce and domestic violence (Asiedu et al., 2018). On the other hand, evidence from Rwanda suggests that women's representation in parliament may change the policy agenda but that there is little evidence of an impact on policy outcomes (Delvin and Elgie, 2008).

2.2 Empirical findings

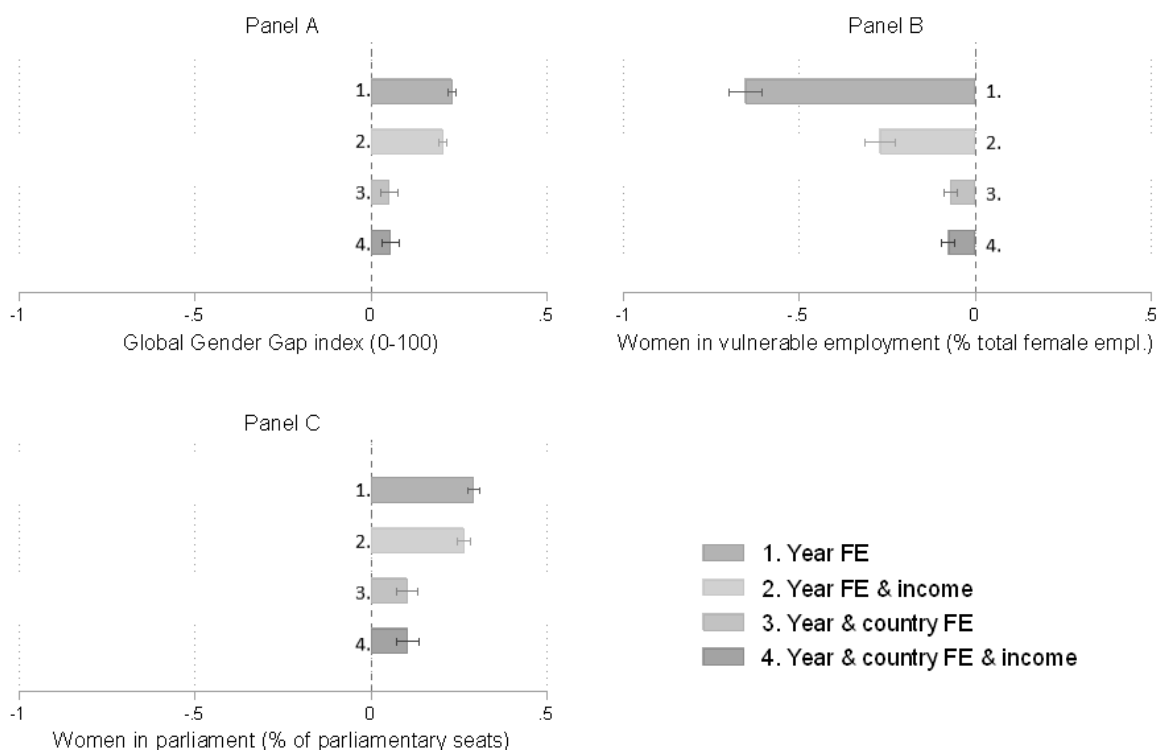
Regressions of the aforementioned metrics of women's economic inclusion and empowerment on the *Women, Business and the Law* data show robust and statistically significant relationships. The results, summarized in Figure 3 below, show that where women face lower levels of legal discrimination: (1) a larger percentage of the gender gap in outcomes has been closed (panel A); (2) there are fewer women in vulnerable employment (panel B); and (3) there are more female representatives in national parliaments (panel C). While we cannot attribute causality to the results displayed in Figure 3, we note that they remain robust after controlling for unobserved time and

¹² The data can be accessed via the World Bank's Gender Data Portal. <https://databank.worldbank.org/source/gender-statistics> [Accessed: Nov 18, 2020].

country-level effects, as well as the income level. Each bar in Figure 3 represents the regression coefficient and associated confidence interval on the WBL index under various model specifications. The first bar in each panel of Figure 3 represents the coefficient on the WBL index when only time effects are controlled for. The second bar represents the same coefficient after a control for income level (measured using the three-year lagged value of per capita GDP) is added. The third bar in each panel represents the coefficient on the WBL index after the control for income level is removed and unobserved, time-invariant effects at the country level are included in the regression. Finally, the fourth bar in each panel represents the regression coefficients when controls for time, country and income effects are included in the model.

Examining first the results presented in Panel A, that is, the relationship between legal gender equality and the progress towards closing the gender-based gap in opportunities and outcomes, the first bar shows that, when only time effects are controlled for, a one-point increase in the WBL index is associated with a 0.23 percentage point increase in the global gender index score. While controlling for the level of economic development (bar number two) does not have a large impact on the magnitude, controlling for unobserved effects at the country level reduces the order of magnitude; however, the relationship remains positive and statistically significant.

Figure 3: Legal gender equality and equality in outcomes



Note: Each panel represents the estimation of a model with a different outcome variable. Each bar represents the coefficient on the WBL index variable under four different model specifications, as explained by the graph legend. The figure displays the estimated coefficients and associated confidence intervals. The full regression results are presented in Table A4 of the Appendix.

Panel B of Figure 3 shows that greater legal equality between men and women in the areas covered by the WBL index is associated with fewer women in vulnerable employment. A one-point increase in the WBL index is, based on the most parsimonious specification, associated with a 0.65 percentage point reduction in the percentage of female workers in vulnerable employment. The magnitude of this relationship drops noticeably once income level is controlled for, and more noticeably still, once unobserved country fixed effects are included. However, the relationship remains significant under each specification. The fourth bar in Panel B, which includes controls for country and year fixed effects and income level, shows that a one-point increase in the WBL index is associated with 0.08 percentage points fewer women in vulnerable employment. Putting this in context, over the past decade, the global average increase in the WBL index was approximately six points.¹³ This global average increase would, based on the coefficients displayed

¹³ This ranged from a low of -3.13 in Uzbekistan, where women's equality as measured by the WBL index regressed, to a high of 44.38 points in Saudi Arabia.

in the fourth bar of Panel B and the global prevalence of vulnerable employed in 2019, be associated almost six million fewer women in vulnerable employment.

Finally, Panel C looks at the relationship between legal equality and women's political representation, as measured by the proportion of seats held by women in national parliaments. The most basic regression results (those displayed in the first bar) show that a single point increase in the WBL index is associated with a 0.65 percentage point increase in women's representation in parliament. Once income and unobserved country-level effects are accounted for, the magnitude is reduced to 0.10 percentage points. Looking again at the relationship in the context of the average six-point increase in the WBL index over the past decade, this increase is, based on the estimated coefficient, associated with a 0.63 percentage point increase in women's representation. This effect is small, but this is an indicator of empowerment that moves very slowly. In fact, the global average annual increase in women's political representation in parliament since 1998 is only 0.56 percentage points.

2.3 Summary

The relationships discussed in this section summarize the ways in which legal equality is positively correlated with better outcomes for women. However, the positive associations extend beyond what is presented in Figure 3. Tables A5-A7 in the appendix document additional correlations between equality under the law and further measures of women's economic inclusion and empowerment. The cumulative evidence strongly suggests that legal emancipation, as reflected in the WBL index, goes hand in hand with measures of actual female empowerment. The association is most salient in cross-country comparisons: countries that have a higher WBL index are also countries in which women have better opportunities and outcomes. But it is also present, though smaller in magnitude, in within-country comparisons across time: a country that has reformed its laws to the benefit of women is also a country in which women fare better. The magnitudes are small, but this is to be expected given that laws are only one way among many in which women's outcomes are affected.

3. The pathways to legal reform - examples from three countries

Figure 2 shows that many of the country characteristics closely associated with legal gender equality are fixed or evolve very slowly. Nonetheless, some countries have made significant

progress towards legal gender equality. While women today have approximately three quarters the rights of men in the areas covered by the index, in 1970, women had less than half the rights of men. The path to reform is something that we lack a deep understanding of, and which can look very different in different contexts. In this section, we exploit case study evidence from three countries to discuss some of the important changes that have been made to gendered laws in specific contexts. Two of these countries, the Democratic Republic of Congo and India, represent developing economies, while the last one, Spain, is an advanced economy. In the first two, we document a weak association between legal reforms toward gender equality and women's economic empowerment. In the case of Congo, this can be attributed to the fact that the reforms are recent; however, this explanation is less compelling for India, which has been gradually reforming its legal environment for the past two decades, and which – despite progress on the legal front – has experienced a *decline* in female labor force participation in the last three decades. In contrast, Spain's progress towards legal gender equality has translated to measurably better outcomes for women. The country case studies serve as a reminder that while legal equality is *on average* associated with better outcomes for women (as our results demonstrate), the experience of individual countries may differ significantly from this average trend. Understanding why legal reform is more conducive to actual change in some settings than in others is an important area for future research.

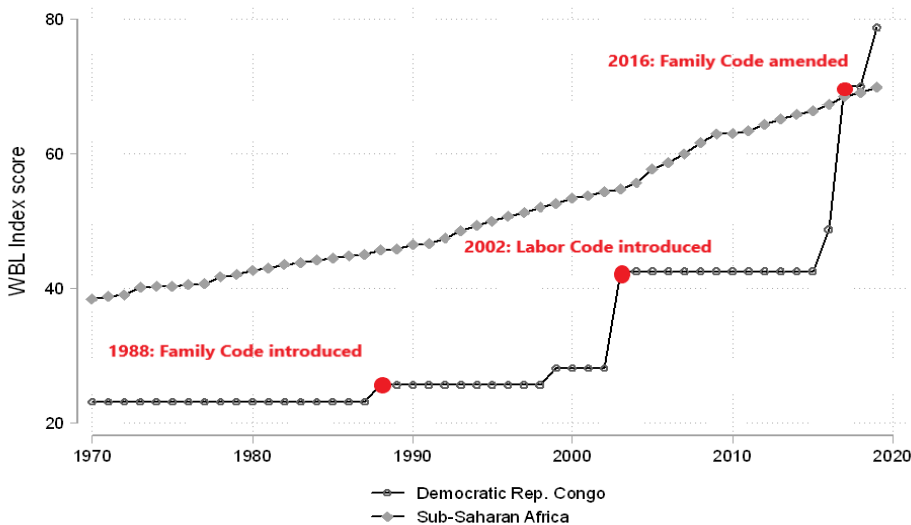
3.1 Legal reform and women's empowerment in the Democratic Republic of Congo (DRC)

Figure 4 below charts the progress towards legal gender equality in the DRC from 1970 to 2019. As the graph shows, for the majority of the first two decades covered by the WBL index, legal equality between men and women in the DRC was low and unchanging. From 1970 through to 1988, women in the DRC had less than one quarter the rights of men in the areas covered by the index. In the *Workplace, Pay, Parenthood* and *Entrepreneurship* indicators, the DRC received zero points. The first reform we see in the late 1980s coincides with the introduction of the Family Code, which entered into force in August of 1988. Prior to this formal codification, family law was governed by customary law, alongside the Civil Code of the former colonial power—Belgium. The new Family Code attempted to unify customary rules with the written laws from the former colonial power (Ntampaka 2005). While the revised Family Code brought about new rights for women in the DRC, including equality in inheritance between sons and daughters and surviving

spouses of both sexes; however it also provides an important example of how reforms are not always positive: the new code included a provision stating that a married woman was legally obliged to obey her husband, a law which had not formerly existed and which represented a regression in the path towards equality.

Following the introduction of the Family Code in 1988, further progress towards legal gender equality, at least in the areas covered by the WBL index, stalled for over a decade. But the early 21st century was an important period of progress towards equality in the DRC. The WBL data show a large increase in women’s rights in 2003. This was brought about by the introduction of the 2002 Labor Code, enacted under Law n°015/2002 in October of 2002. Political will to modernize the country’s laws was a major motivating factor in the introduction of the Labor Code. The new Labor Code is reflected by 14-point increase in the WBL index, driven by changes in the *Workplace*, *Pay* and *Parenthood* indicators.

Figure 4: Legal reform in the Democratic Republic of Congo, and regional average



Further advancement towards legal gender equality was made in 2006 when a new Constitution was adopted. The new Constitution enshrined the principles of gender equality and prohibited discrimination on the basis of sex in its articles 12, 13, and 14.¹⁴ Also in 2006, the DRC became a

¹⁴ Présidence de la République - République Démocratique du Congo. Constitution de la République Démocratique du Congo du 18 février 2006. <https://www.wipo.int/edocs/lexdocs/laws/fr/cd/cd001fr.pdf> [Accessed: November 20, 2020].

member of the Protocol to the African Charter on Human and Peoples' Rights on the Rights of Women in Africa, better known as the Maputo Protocol, which guarantees wide-ranging rights to women. In 2009, a National Policy on Gender Issues and a corresponding action plan was designed and implemented. Furthermore, as another example of the political will to make gender-sensitive reforms, the DRC enacted the Law No. 15/03 on the rights of women and parity in August 2015, which prohibited gender-based discrimination in access to financial services and employment. This reform is reflected in a 6.25 increase in the WBL index in 2016.

The 2016 reform does not stand out in Figure 4 because of a much larger increase in the index in the following year, which reflects the July 2016 amendment to the 1988 Family Code. Although this appears as a sudden improvement in the index, bringing about these reforms was a process that took many years. Notably, the Permanent Consultation Framework for Congolese Women was established in 2005 and provided women's rights NGOs a formal platform to address gender issues with the government. This platform was used in 2014 by Congolese women's organizations to develop propositions to amend the discriminatory provisions contained in the Family Code. The reform was also rooted in the political will to align the DRC's body of laws with the principles of equality contained in the 2006 Constitution, and in international and regional legal instruments. This reform had several implications for women's rights: it allowed women to choose where to live in the same way as men; to get a job without the permission of their husband; and to open a bank account, to register a business and to sign a legally binding contract in the same way as men. Furthermore, it removed the provision that required a married woman to obey her husband. This fundamental change to women's rights is reflected in a 21.25 increase in the WBL index.

The two most recent reforms captured by the WBL index reflect the administration of maternity leave benefits by the government, and the equalization of the age at which men and women can retire with full pension benefits. After the implementation of these two reforms, the WBL index score for the DRC is 78.75, which is above the global average value; this is in stark contrast to the situation in 1970, when women in the DRC faced a level of legal discrimination that was much more severe than the global or the regional average.

A lack of available data prevents a complete study of how women's economic inclusion has evolved alongside their legal equality. For example, the DRC has only been included in the WEF's *Global Gender Gap* report in the past two years. Data on the percentage of female workers in

vulnerable employment is available from the period 1991 to 2019, and shows that, despite the progress that was being made in women's rights at this time, the proportion of female workers deemed vulnerable decreased by less than five percentage points, from 94.80 to 90.18, over these 29 years. In contrast, the proportion of male workers in vulnerable employment dropped by almost ten percentage points, from 79.03 to 69.67. It also appears that gains in women's rights have not been reflected in their political representation: data from 2004 to 2019 show that the percentage of parliamentary seats held by women has fallen from 12 to 10 percent over this time period.

It is unclear why the large gains in legal equality have not been reflected in similarly large gains in women's economic inclusion and empowerment. It is worth noting, however, that some of the largest reforms, at least in terms of their impact on the WBL index, have been made relatively recently and, therefore, more time may be needed for these legal changes to be reflected in women's outcomes.

3.2 Legal reform and women's empowerment in India

For India, the first decade and a half covered by the WBL index saw no movements towards legal equality between men and women. The first reform captured by the WBL data occurs in 1987 when India's Equal Remuneration Act of 1976 was amended to specifically prohibit discrimination on the basis of sex when recruiting employees. The original Act was amended to widen the protection against discrimination introduced in the 1976 Act. It is noteworthy that while this Act refers to the principle of equal remuneration, it does not meet the standards set by the International Labor Organization of "equal remuneration for work of equal value". As such, the WBL data point which asks, "Does the law mandate equal remuneration for work of equal value?" was, and remains, "No".

The next reform occurs in 1995. In this year, inheritance rights between surviving spouses and between daughters and sons were equalized. The reform of these two data points resulted in a five-point increase in the aggregate WBL index. This reform reflects a legislative change that was enacted at the state level in Maharashtra, where Mumbai is located.¹⁵ The legal basis for the reform is the Hindu Succession (Maharashtra Amendment) Act, 1994. Agarwal (2002) discusses the

¹⁵ The WBL methodology analyzes the constraints that a hypothetical woman faces as she navigates her working life. There are several assumptions underlying this approach, one of which is that the hypothetical woman lives and works in the main business. Historically, the main business city in India was Mumbai.

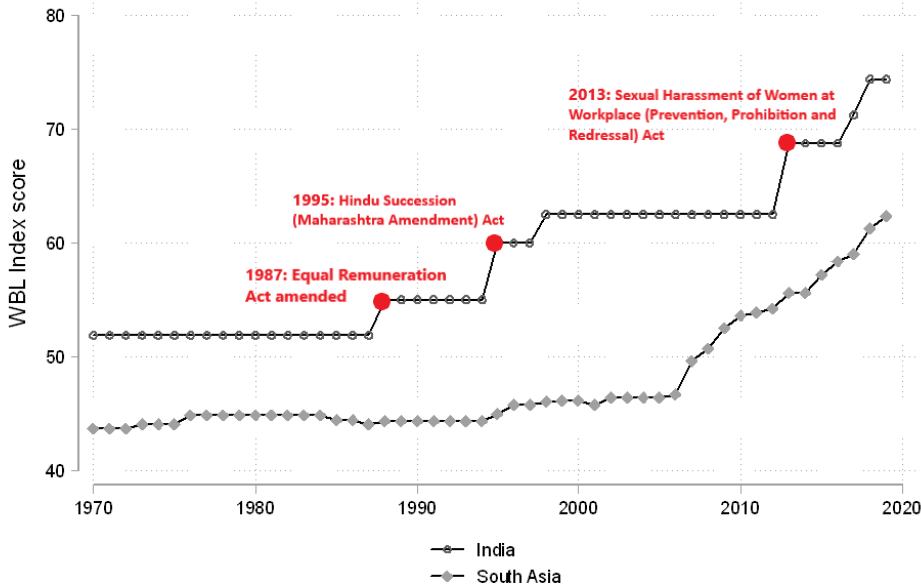
gradual reform of India's inheritance laws from a position of substantial inequality prior to the original Hindu Succession Act of 1956 to near equality today. Agarwal (ibid) explains that progress towards equality was the result of a gradual bargaining process, whereby various groups have had, over time, different degrees of bargaining power in relation to the state. The author notes that factors that affect people's bargaining power include the size and cohesion of the group of agents seeking change, in addition to other factors including support from civil society organizations, entrenched political structures and social norms. In 2005, the Maharashtra Amendment was expanded to the federal level.

The next step towards legal equality in India, as captured by WBL, occurs three years later, in 1998, when legislation addressing domestic violence came into effect. This reform reflects a 1997 supreme court ruling on a Public Interest Litigation taken by the women's rights group Vishaka, as well as other women's groups, against the state of Rajasthan and India's central government. Their case sought to seek an enforcement of the fundamental rights of working women under Articles 14, 19 and 21 of India's Constitution. The impetus for this petition is particularly stark: it was brought to court after a social worker was gang raped for preventing a child marriage (Indian Express, 2010). The litigation, and the courts subsequent ruling, brought about what are known as the Vishaka Guidelines, a set of guidelines for use in cases of sexual harassment. This ruling was seen as a significant legal victory for women's rights groups in India.

The reform in 1998 was followed by a long period of stagnation in the area of women's economic rights. Indeed, the WBL index score for India remained fixed at 62.50 points for fifteen years. The next reform occurred in 2013 when the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act of 2013 was implemented. This legislation prohibited sexual harassment in employment and introduced both criminal penalties and civil remedies for violation of the law; it superseded the aforementioned Vishaka Guidelines. Bringing about this legislative change was a long process; as discussed by Geetha (2012), the process to create legislation on sexual harassment in the workplace began in 2000 with the Sexual Harassment of Women at the Workplace (Prevention) Bill. This Bill was amended in 2001, 2002 and 2003, but none of these iterations were passed into law. In 2007, the National Commission for Women submitted the Protection of Women against Sexual Harassment at Workplace Bill, which, Geetha (ibid) notes, included a comprehensive definition of sexual harassment. In 2010, the Ministry for Law and

Justice submitted a draft of the same Bill to the Lok Sabha—the lower house of India’s bicameral parliament. A report on the Bill was published in 2011, an amendment approved in 2012 and, finally, in 2013 the Bill was passed by both houses of parliament and the President. This legal reform increased the WBL score for India to 68.75.

Figure 5: Legal reform in India, and regional average



The final two reforms captured by the WBL index happened in relatively close succession. On March 9, 2017 India passed a reform that increased paid maternity leave from 12 to 26 weeks under the Maternity Benefit (Amendment) Act. This brought the allocated paid maternity leave up to (and, indeed, beyond) the international labor standard of 14 weeks. It is unclear what impact this measure will have on women’s economic empowerment in India. As outlined by Nikore (2017), the costs of implementing the Act, which also mandates the provision of childcare facilities, are borne by the employer. Additionally, the Act makes no provision for paternity leave. Nikore (ibid) notes that, while the Act may have some positive implications for women’s health, well-being and job security, it may also be associated with a reduction in the demand for female labor, and a reversal of the gains that have been made in sharing domestic responsibilities. The next reform captured by WBL occurred later that year when the state of Maharashtra enacted the Maharashtra Shops and Establishments (Regulation of Employment and Conditions of Service) Act, which repealed and replaced the 1948 Shops and Establishments Act. The 1948 Act had

prohibited women from performing tasks that were considered dangerous by the state. While the aim of this provision in the 1948 was to protect women, research has shown that job-related restrictions are associated with lower levels of female employment (Ogloblin 2005).

Thus, over the course of the 50 years covered by the WBL index, India increased its aggregate score from 51.86 to 74.38 (Figure 5). Despite this progress, which is slightly above the average rate of reform in the region but below the global average pace, the economic reality of women does not appear to have improved radically. In fact, over the past two decades, the female labor participation rate for women between 15 and 64 years of age in India has fallen, from 31.66 percent in 1991 to 22.01 percent in 2019. On the other hand, data from the World Economic Forum shows progress towards closing the aggregate gender gap in outcomes: according to this data, in 2006, 60.10 percent of the gender gaps in outcomes had been bridged; this has increased to 66.80 percent by 2019. However, the subcomponent of the WEF's aggregate score that measures progress in closing gender-based gaps in economic participation and opportunity confirms that the situation has regressed between 2006 and 2019. On a more positive note, women's representation in parliament has increased from approximately seven percent in 1997 to 14.39 percent in 2019.

3.3 Legal reform and women's empowerment in Spain

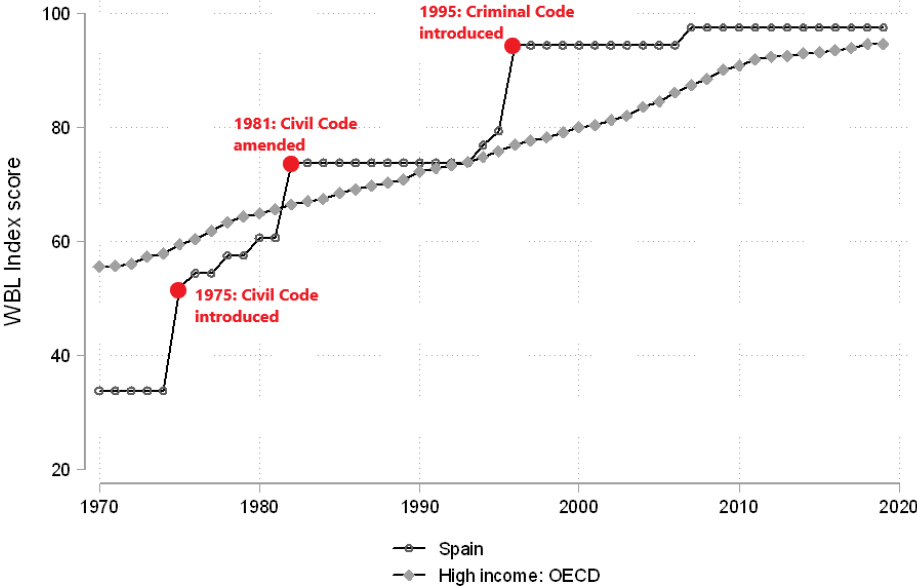
Spain presents another important case study. While legal equality between genders is, at least in the areas covered by the WBL index, close to parity today, historically, its laws discriminated against women in many ways. Due to Spain's history of colonization, economies in other regions inherited these restrictions and, thus, these gendered laws have had an impact on women's rights beyond the country's borders. So, while Spain has made notable improvements to its gendered laws, the legacy of these laws endures.

The 2019 WBL data shows that gender parity has almost been reached in Spain in the areas covered by the index. Indeed, with a score of 97.50 the WBL index only records a single data point where gender parity has not been reached.¹⁶ While Spain's score is above average for a high-income OECD economy today, in 1970, women only had approximately one third the rights of men in the areas covered by the index (Figure 6). In 1970, the scores in the *Workplace* and *Entrepreneurship*

¹⁶ This is in the *Parenthood* indicator where Spain does not receive a perfect score due to the absence of legal provisions for parental leave.

indicators were both zero, indicating that Spanish laws were particularly discriminatory to women as employees and entrepreneurs. During the period of Franco’s dictatorship, women’s rights were severely curtailed by Franco’s 1945 Charter that included a *permiso marital* — prohibiting married women from most economic activities without her husband’s permission. In particular, married women could not seek employment, sign a contract or open a bank account without their husbands’ permission (Solsten and Meditz, 1988).

Figure 6: Legal reform in Spain, and regional average



The first notable reform in Spain’s WBL score comes in 1975—the year in which a new Spanish Civil Code was adopted. The 1975 Civil Code equalized the way in which men and women could get a job; it removed the legal provision stating that a married woman had to obey her husband; and it ensured that a woman could sign a contract, open a bank account and register a business in the same way as a man. Thus, the new Civil Code impacted three of the eight WBL indicators (*Workplace, Marriage and Entrepreneurship*). Around this time, two other legislative changes were made granting women a minimum of 14 weeks paid maternity leave (Ley 16/1976 8th April) and ensuring that periods of absence from work due to childcare were included in the calculation of pension benefits (Decreto 2065/1974). Together with the impact of the revised Civil Code, the overall WBL index value increased by 20.63 points. There were both push and pull factors that influenced this more gender equal Civil Code. On the one hand, economic growth pushed the

government to make reforms that would allow more women to enter the workforce in order to keep pace with the industrial expansion (Solsten and Meditz, 1988). At the same time, global feminist movements reached Spain in the 1970s, which pulled the country towards more gender equal laws. In response to the pressure that the Spanish government came under to revise the Civil Code, it created a commission to reform legislation to align with other Western European countries (Armenia, 2014). In 1972, the United Nations declared that 1975 would be the International Women's Year and that the period from 1975 to 1985 would be the "Decade for Women". The new Civil Code came out during International Women's Year and, in removing the *permiso marital*, ensured that "marriage does not restrict the capacity of either marriage partner" (Sponsler, 1982).

Incremental reforms continued to take place in Spain throughout the 1970s and into the early 1980s. In 1981 the Civil Code was amended to remove restrictions formerly placed upon a woman's right to choose where to live, to obtain a divorce and to manage property. Progress stalled, however, until the Workers' Statute was introduced in 1994. The Statute aimed to improve the working conditions for all workers and, in an important move to improve women's economic rights, it included a clause ensuring that women should receive equal remuneration for work of equal value. The impetus to include this condition in the Workers' Statute came from the efforts of women's rights advocates. Particularly influential was the Women's Institute, which was created in 1983 by the governing Socialist Party to promote gender equality.

The 1995 Criminal Code also had important impacts for women's economic inclusion by addressing sexual harassment and violence against women. Specifically, it criminalized domestic violence (included under the *Marriage* indicator of the WBL index) and sexual harassment in the workplace (part of the *Workplace* indicator). These issues were addressed under Articles 173 (domestic violence) and 184 (sexual harassment at work) of the 1995 Criminal Code. Notably, trade unions in Spain played a key role in addressing violence and sexual harassment in the workplace (Pillinger 2017).

A final legal reform worth highlighting was the passage of the 2007 "Ley Orgánica", which introduced legislation banning gender-based discrimination in access to credit—a data point included in the *Entrepreneurship* indicator. This change was brought about by the "Law for Equality of Women and Men" (Law 3/2007), entitling individuals to take judicial action to claim

their rights in courts (European Parliament, 2009). The introduction of this reform appears to have been driven by political will. In 2004, the new socialist government led by Prime Minister Jose Luis Zapatero began to enact several laws to reduce gender inequality. The creation of the Equality Policies General Secretariat, which had greater powers than the aforementioned Women's Institute, reinforced the gender focus.

When comparing progress in legal gender equality with progress in women's empowerment, data availability limits the time period over which the comparison can be made. However, national data on female labor supply are available from 1970 and do show an upward trend: the female labor force participation rate increased from 17.87 percent in 1970 to 52.69 percent in 2019. Other metrics of women's economic inclusion and empowerment have also shown progress, albeit over a shorter time horizon. For example, the WEF *Global Gender Gap* index score shows an increase in progress towards gender equality in outcomes; in 2006, 73.19 percent of the gender gaps in outcomes had been closed, while by 2019, this had progressed to 79.50 percent. Other data confirms that the economic situation of women has been improving; from 1991 to 2019 the percentage of female employees in vulnerable employment decreased from 23.51 percent to 8.38 percent. Progress has also been made in women's political representation; data show that between 1997 and 2019, the proportion of seats held by women in Spain's national parliament has increased from 24.71 to 44 percent.

4. Conclusions

In this study we investigate whether gendered laws correlate with women's actual empowerment. We do so in three steps. First, we examine the determinants of gendered laws and show that the main factors determining the level of discrimination against women, i.e., a country's legal origin, measures of governance, geographic characteristics and the dominant religion, are all either time-invariant or slow to change over time. While this suggests that meaningful legal change may be hard to achieve in the short run, we do document considerable progress in legal gender equality over the past five decades. Second, we use our panel data to establish that lower gender discrimination under the law is associated with a lower gender gap in opportunities and outcomes, with fewer female workers in positions of vulnerable employment, and with greater political representation for women. Hence, on average, gendered laws correlate meaningfully with important economic outcomes, both in the cross-section and in the time series. Finally, we present

three country case studies illustrating the pathway to reform of gender-discriminatory laws and discuss how women's outcomes have evolved in tandem with legal reforms in each country. The case studies demonstrate that while on average, across the world, lower gender discrimination under the law is associated with better outcomes for women, there is substantial cross-country heterogeneity in the relationship between *de jure* and *de facto* gender equality. Understanding the sources of this heterogeneity using detailed micro data from individual countries remains an area of fruitful future research.

References

- Agarwal, Bina. ““Bargaining” and legal change: toward gender equality in India's inheritance laws.” *IDS Working Paper No. 165* (2002).
- Agarwal, Bina. “Gender and land rights revisited: exploring new prospects via the state, family and market.” *Journal of Agrarian Change* 3, no. 1-2 (2003): 184-224.
- Ahmad, Mahtab, Moazma Batool, and Sophia F. Dziegielewski. “State of Inheritance Rights: Women in a Rural District in Pakistan.” *Journal of Social Service Research* 42, no. 5 (2016): 622-629.
- Aldashev, Gani, Imane Chaara, Jean-Philippe Platteau, and Zaki Wahhaj. “Using the law to change the custom.” *Journal of Development Economics* 97, no. 2 (2012): 182-200.
- Alesina, Alberto, Arnaud Devleeschauwer, William Easterly, Sergio Kurlat, and Romain Wacziarg. “Fractionalization.” *Journal of Economic Growth* 8, no. 2 (2003): 155-194.
- Ali, Daniel Ayalew, Klaus Deininger, and Markus Goldstein. “Environmental and gender impacts of land tenure regularization in Africa: Pilot evidence from Rwanda.” *Journal of Development Economics* 110 (2014): 262-275.
- Ashraf, Nava, Natalie Blau, Nathan Nunn, and Alessandra Voena. “Bride Price and Female Education.” *Journal of Political Economy*, 128(2), (2020): 591-641.
- Asiedu, Elizabeth, Claire Branstette, Neepa Gaekwad-Babulal, and Nanivazo Malokele. “The effect of women's representation in parliament and the passing of gender sensitive policies.” In *ASSA Annual Meeting (Philadelphia, 5-7 January)*. www.aeaweb.org/conference/preliminary/paper [Accessed: November 6, 2020]. 2018.
- Barlas, Asma. *Believing Women in Islam: Unreading Patriarchal Interpretations of the Qur'an*. Austin: University of Texas Press (2019).
- Bertrand, Marianne. “New Perspectives on Gender,” in *Handbook of Labor Economics*, Vol. 4, (2011): 1543–1590.

- Carruthers, Celeste K., and Marianne H. Wanamaker. "Municipal Housekeeping: The Impact of Women's Suffrage on Public Education." *Journal of Human Resources* 50, no. 4 (2015): 837-872.
- Cascio, Elizabeth U., and Na'ama Shenhav. "A Century of the American Woman Voter: Sex Gaps in Political Participation, Preferences, and Partisanship Since Women's Enfranchisement." *Journal of Economic Perspectives* 34, no. 2 (2020): 24-48.
- Combs, Mary Beth. "'A measure of legal independence': The 1870 Married Women's Property Act and the portfolio allocations of British wives." *The Journal of Economic History* 65, no. 4 (2005): 1028-1057.
- Combs, Mary Beth. "Cui bono? The 1870 British Married Women's Property Act, bargaining power, and the distribution of resources within marriage." *Feminist Economics* 12, no. 1-2 (2006): 51-83.
- Crisman, Benjamin, Sarah Dykstra, Charles Kenny, and Megan O'Donnell. "The impact of legislation on the hazard of female genital mutilation/cutting: regression discontinuity evidence from Burkina Faso." *Center for Global Development Working Paper* 432 (2016).
- Deininger, Klaus, Aparajita Goyal, and Hari Nagarajan. "Women's inheritance rights and intergenerational transmission of resources in India." *Journal of Human Resources* 48, no. 1 (2013): 114-141.
- Devlin, Claire, and Robert Elgie. "The effect of increased women's representation in parliament: The case of Rwanda." *Parliamentary Affairs* 61, no. 2 (2008): 237-254.
- Djankov, Simeon, Edward L. Glaeser, Valeria Perotti & Andrei Shleifer. "Measuring Property Rights Institutions", Working Paper 27839, NBER, Cambridge, MA (2020).
- Djurfeldt, Agnes Andersson. "Gendered land rights, legal reform and social norms in the context of land fragmentation-A review of the literature for Kenya, Rwanda and Uganda." *Land Use Policy* 90 (2020): 104305.
- Daley, Elizabeth, Rachel Dore-Weeks, and Claudine Umuhoza. "Ahead of the game: land tenure reform in Rwanda and the process of securing women's land rights." *Journal of Eastern African Studies* 4, no. 1 (2010): 131-152.
- Fernandez, Raquel. "Cultural Change as Learning: The Evolution of Female Labor Force Participation Over a Century," *American Economic Review*, 103 (1), (2013): 472–500.
- Fernandez, Raquel and Alessandra Fogli. "Culture: An empirical investigation of beliefs, work, and fertility." *American Economic Journal: Macroeconomics* 1 (1), (2009): 146–177.
- Fernandez, Raquel, Alessandra Fogli, and Claudia Olivetti: "Mothers and Sons: Preference Formation and Female Labor Force Dynamics," *Quarterly Journal of Economics*, (2004): 1249–1299.

- Geddes, Rick, Dean Lueck, and Sharon Tennyson. "Human capital accumulation and the expansion of women's economic rights." *The Journal of Law and Economics* 55, no. 4 (2012): 839-867.
- Gedzi, Victor Selorme. "Women's property relations after intestate succession PNDC law 111 in Ghana." (2012).
- Hilhorst, Thea. "Women's land rights: current developments in Sub-Saharan Africa." In: Toulmin, C., Quan, J. (Eds.), *Evolving land rights, policy and tenure in Africa*. (2000): 181-196.
- Holden, Livia, and Azam Chaudhary. "Daughters' inheritance, legal pluralism, and governance in Pakistan" *The Journal of Legal Pluralism and Unofficial Law* 45, no. 1 (2013): 104-123.
- Htun, Mala, and S. Laurel Weldon. "State power, religion, and women's rights: A comparative analysis of family law." *Indiana Journal of Global Legal Studies* 18, no. 1 (2011): 145-165.
- Hyland, Marie, Simeon Djankov, and Pinelopi Koujianou Goldberg. 2020. "Gendered laws and women in the workforce." *American Economic Review: Insights*. 2 (4): 475-90.
- Indian Express. "Sexual harassment at workplace" (2010). Available at: <http://archive.indianexpress.com/news/sexualharassmentatworkplace/571636> [Accessed: December 8, 2020]
- Kevane, Michael. *Women and development in Africa: How gender works*. Lynne Rienner Publishers, London (2004).
- Khan, B. Zorina. "Married women's property laws and female commercial activity: Evidence from United States patent records, 1790–1895." *The Journal of Economic History* 56, no. 2 (1996): 356-388.
- Kose, Esra, Elira Kuka, and Na'ama Shenhav. "Who Benefited from Women's Suffrage?" http://www.elirakuka.com/uploads/1/0/0/6/10064254/kks_sep19.pdf (2019).
- La Porta, Rafael, Florencio Lopez-de-Silanes, and Andrei Shleifer. "The economic consequences of legal origins." *Journal of Economic Literature* 46, no. 2 (2008): 285-332.
- Lott, Jr, John R., and Lawrence W. Kenny. "Did women's suffrage change the size and scope of government?" *Journal of Political Economy* 107, no. 6 (1999): 1163-1198.
- Marshall, M., and T. Gurr. "Polity5: Political regime characteristics and transitions, 1800-2018." *Center for Systemic Peace*. <http://www.systemicpeace.org/inscr/p5manualv2018.pdf> (2020).
- Mashhour, Amira. "Islamic law and gender equality: Could there be a common ground? A study of divorce and polygamy in Sharia Law and contemporary legislation in Tunisia and Egypt." *Human Rights Quarterly* (2005): 562-596.
- Miller, Grant. "Women's suffrage, political responsiveness, and child survival in American history." *The Quarterly Journal of Economics* 123, no. 3 (2008): 1287-1327.

- Nikore, Mitali. "Supporting motherhood—or discouraging parenthood? A curious case of the extended maternity leave in India." South Asia@ LSE (2017). Available at: <https://blogs.lse.ac.uk/southasia/2017/03/17/supporting-motherhood-or-d discouraging-parenthood-a-curious-case-of-the-extended-maternity-leave-in-india/> [Accessed: December 9, 2020].
- North, Douglass Cecil. *Structure and Change in Economic History*. Norton, 1981.
- Ntampaka, Charles. *Introduction aux systèmes juridiques africains*. Vol. 26. Presses universitaires de Namur (2005).
- Nunn, Nathan. "The long-term effects of Africa's slave trades." *The Quarterly Journal of Economics* 123, no. 1 (2008): 139-176.
- Nunn, Nathan, and Diego Puga. "Ruggedness: The blessing of bad geography in Africa." *Review of Economics and Statistics* 94, no. 1 (2012): 20-36.
- Organisation Internationale pour les Migrations. (Ed.). *Le renforcement du rôle des femmes dans la reconstruction nationale et le développement économique en République démocratique du Congo* (pp. 1-187, Rep.). https://publications.iom.int/system/files/pdf/lerole_congo.pdf (2003).
- Pillinger, Jane. "ETUC 'Safe at Home, Safe at Work': Spain Country Case Study." Available at: https://www.etuc.org/sites/default/files/document/files/spain_etuc_safe_at_home_safe_at_work_final_0.pdf (2017).
- Pistor, Katharina, and Philip A. Wellons. *The Role of Law and Legal Institutions in Asian Economic Development, 1960-1995*. Oxford University Press, 1999.
- Rao, Nitya. "Custom and the courts: Ensuring women's rights to land, Jharkhand, India." *Development and Change* 38, no. 2 (2007): 299-319.
- Ross, Michael L. "Oil, Islam, and women." *American political science review* (2008): 107-123.
- Solsten, Eric, and Sandra W. Meditz. "Spain: A Country Study." Washington: GPO for the Library of Congress. Available at: https://cdn.loc.gov/master/frd/frdcstdy/sp/spaincountrystud00sols_0/spaincountrystud00sols_0.pdf (1988).
- Sponsler, Lucy A. "The Status of Married Women Under the Legal System of Spain." Available at: <https://digitalcommons.law.lsu.edu/lalrev/vol42/iss5/9> (1982).
- Vatuk, Sylvia. "The 'women's court' in India: an alternative dispute resolution body for women in distress." *The Journal of Legal Pluralism and Unofficial Law* 45, no. 1 (2013): 76-103.
- Voena, Alessandra. "Yours, Mine and Ours: Do Divorce Laws Affect the Intertemporal Behavior of Married Couples?" *American Economic Review*, 105.8 (2015): 2295-2332.
- Weber, Max. "The Protestant ethic and the spirit of capitalism (Talcott Parsons, Trans.)." *New York: Charles Scribner's Sons* (1958).

Williamson, Claudia R., and Carrie B. Kerekes. "Securing private property: formal versus informal institutions." *The Journal of Law and Economics* 54, no. 3 (2011): 537-572.

World Bank. "Women, Business and the Law 2020." (2020).

Appendix:

A1. Additional results

Table A1 presents the standardized regression coefficients from the estimation of equation (1), which are also illustrated in Figure 2. Table A2 and A3 provide additional details on the *Women Business and the Law* and *Global Gender Gap* indices respectively. Table A4 presents the regression coefficients underlying the results displayed in Figure 3.

Tables A5 to A7 display the correlations between the WBL index and additional metrics of women's economic inclusion and empowerment. Table A5 displays the correlations between WBL index and each of the four subcomponents of the World Economic Forum's Global Gender Gap index; namely economic participation and opportunity, educational attainment, health and survival and political empowerment. The results show that legal equality is positively correlated with lower gender-based gaps (as illustrated by a higher score) in each of the four subcomponents, based on the most basic regression presented in column (1) of Table A5. Additionally, three of the four correlations remain positive and statistically significant when country and year fixed effects, as well as per capita GDP, are controlled for. The only correlation that does not survive the inclusion of country fixed effects, is that between the WBL index and the subcomponent that captures gender-based gaps in educational attainment.

Table A6 shows the correlation between the WBL index and several labor market outcomes for women. The first two sets of results show that a higher WBL index score is associated with a lower percentage of female workers in self-employment and fewer female contributing family workers. These correlations are expected as these categories of employment are highly correlated with vulnerable employment. The results displayed in Table A6 also show that when time effects are controlled for, but country fixed effects and income level are not, legal equality is significantly correlated with a greater share of female workers in positions of management. However, this correlation is not significant once country effects and income are included in the regressions. A similar pattern holds when we consider the correlation between the WBL index and female

employment in industry. The results in column (1) show a positive correlation but, once country fixed effects are included, this relationship becomes negative and statistically significant. The relationships between WBL and employment in services and agriculture are more robust: all specifications show that greater equality under the law is associated with a greater proportion of female workers employed in the services sector, and fewer women engaged in agricultural employment.

Finally, Table A7 presents the relationship between the WBL index and female employment by economic classification. These data are modelled estimates from the International Labor Organization¹⁷ of the number of employees, disaggregated by gender, who are categorized as extremely poor (income of less than USD 1.90 per day in purchasing power parity (PPP)), moderately poor (income between USD 1.90 and 3.20 per day in PPP values), near poor (income between USD 3.20 and 5.50 per day in PPP) and not poor (income greater than USD 5.50 PPP per day). The results displayed in Table A7 below show that a higher WBL score is associated with fewer female workers in the “extremely poor” category of worker, and a greater share of female workers in each of the other three categories. The positive correlation is strongest for the proportion of female workers that are classified as moderately poor, suggesting that more equality under the law is associated with better economic outcomes at the lower level of the income distribution. Note that these correlations remain statistically significant after the level of economic development (proxied by per capita GDP) has been included in the regressions.

¹⁷ <https://ilostat.ilo.org/data/> [Accessed: Nov 18, 2020].

Table A1: Country characteristics and legal gender equality¹⁸

| Y = WBL index score | Standardized coefficients |
|-----------------------------------------------------------------------------|----------------------------------|
| Geographic characteristics | |
| Ruggedness (Terrain Ruggedness Index, 100 m.) | -0.0943*** (0.0087) |
| Land area (1000 Ha.) | -0.0293*** (0.0101) |
| Latitude | 0.0747*** (0.0111) |
| Longitude | -0.0852*** (0.0108) |
| % Fertile soil | 0.2581*** (0.0115) |
| % Desert | -0.1038*** (0.0084) |
| % Tropical climate | -0.0833*** (0.0110) |
| Average distance to nearest ice-free coast (1000 km.) | 0.1449*** (0.0101) |
| Gem diamond extraction 1958-2000 (1000 carats) | -0.0268*** (0.0090) |
| Slave exports 1400-1900 | -0.0253*** (0.0072) |
| Religion (Reference category: Roman Catholic) | |
| Buddhist | 0.0887*** (0.0095) |
| Christian | -0.0473*** (0.0086) |
| Hindu | 0.0050 (0.0070) |
| Muslim | -0.2683*** (0.0118) |
| Nonreligious | 0.0543*** (0.0095) |
| Orthodox | 0.0294*** (0.0096) |
| Protestant | -0.0296*** (0.0081) |
| Other | -0.0001 (0.0118) |
| Legal origin (reference category: English) | |
| French | 0.0641*** (0.0103) |
| German | -0.0203* (0.0109) |
| Scandinavia | 0.0946*** (0.0096) |
| Polity | |
| Polity score: -10 (autocracy) to +10 (full democracy) | 0.2783*** (0.0107) |
| No. of years since the last substantive change in authority characteristics | 0.1043*** (0.0103) |
| Real GDP per capita (t-3) | |
| Number of observations | 6,144 |
| R2 | 0.702 |

¹⁸ We have also explored the relationships between legal gender equality and measures of governance and human rights. The results show that higher scores for voice and accountability and government effectiveness, as measured by the World Governance Indicators, are positively associated with legal gender equality. Regression results also confirm that where human rights are protected and respected, gender equality under the law is greater. The inclusion of these variables does not impact the pattern of results displayed in Figure 2 and Table A3; however, we have chosen not to include them in our main specifications due to concerns about simultaneity bias.

| | |
|---------------------------------------------------------------------------------------------------------------------|-------|
| Adjusted R2 | 0.699 |
| Note: Standard errors presented in parentheses; .01 - ***; .05 - **; .1 - *; Regression includes time fixed effects | |

Table A2 Indicators and topics covered by the World Bank's Women, Business and the Law Index

| |
|---------------------------------------------------------------------------------------------------------------------------------|
| 1. Mobility |
| 1. Can a woman choose where to live in the same way as a man? |
| 2. Can a woman travel outside her home in the same way as a man? |
| 3. Can a woman apply for a passport in the same way as a man? |
| 4. Can a woman travel outside the country in the same way as a man? |
| 2. Workplace |
| 5. Can a woman legally get a job or pursue a trade or profession in the same way as a man? |
| 6. Does the law mandate nondiscrimination in employment based on gender? |
| 7. Is there legislation on sexual harassment in employment? |
| 8. Are there criminal penalties or civil remedies for sexual harassment in employment? |
| 3. Pay |
| 9. Does the law mandate equal remuneration for work of equal value? |
| 10. Can women work the same night hours as men? |
| 11. Can women work in jobs deemed hazardous, arduous, or morally inappropriate in the same way as men? |
| 12. Are women able to work in the same industries as men? |
| 4. Marriage |
| 13. Is a married woman not legally required to obey her husband? |
| 14. Can a woman legally be "head of household" or "head of family" in the same way as a man? |
| 15. Is there legislation specifically addressing domestic violence? |
| 16. Can a woman obtain a judgment of divorce in the same way as a man? |
| 17. Do women have the same rights to remarry as men? |
| 5. Parenthood |
| 18. Is there paid leave of at least 14 weeks available to women? |
| 19. Does the government pay 100% of maternity leave benefits or parental leave benefits (where maternity leave is unavailable)? |
| 20. Is there paid paternity leave? |
| 21. Is there paid parental leave? |
| 22. Is dismissal of pregnant workers prohibited? |
| 6. Entrepreneurship |
| 23. Does the law prohibit discrimination by creditors based on sex or gender in access to credit? |
| 24. Can a woman legally sign a contract in the same way as a man? |
| 25. Can a woman legally register a business in the same way as a man? |
| 26. Can a woman legally open a bank account in the same way as a man? |
| 7. Assets |
| 27. Do men and women have equal ownership rights to immovable property? |
| 28. Do sons and daughters have equal rights to inherit assets from their parents? |
| 29. Do female and male surviving spouses have equal rights to inherit assets? |
| 30. Does the law grant spouses equal administrative authority over assets during marriage? |
| 31. Does the law provide for valuation of nonmonetary contributions? |

| 8. Pension |
|-----------------------------------------------------------------------------------------|
| 32. Are the ages at which men and women can retire with full pension benefits equal? |
| 33. Are the ages at which men and women can retire with partial pension benefits equal? |
| 34. Is the mandatory retirement age for men and women equal? |
| 35. Does the law establish explicit pension credits for periods of childcare? |

Table A3: Indicators included in the Global Gender Gap index

| Area | Indicator |
|----------------------------------------|------------------------------------------------------------------|
| Economic Participation and Opportunity | Labor force participation rate (%) |
| Economic Participation and Opportunity | Wage equality for similar work (survey, 1–7 scale) |
| Economic Participation and Opportunity | Estimated earned income (PPP, int.\$) |
| Economic Participation and Opportunity | Legislators, senior officials and managers (%) |
| Economic Participation and Opportunity | Professional and technical workers (%) |
| Educational Attainment | Literacy rate (%) |
| Educational Attainment | Enrolment in primary education (%) |
| Educational Attainment | Enrolment in secondary education (%) |
| Educational Attainment | Enrolment in tertiary education (%) |
| Health and Survival | Sex ratio at birth (%) |
| Health and Survival | Healthy life expectancy (years) |
| Political Empowerment | Women in parliament (%) |
| Political Empowerment | Women in ministerial positions (%) |
| Political Empowerment | Years with female head of state (last 50), share of tenure years |

Source: World Economic Forum, 2019.

Table A4: Legal gender equality and equality in outcomes

| PANEL A: Percentage of the gender gap in outcomes closed | | | | |
|--------------------------------------------------------------------|------------|---------------|---------------------|---------------------------|
| | (1) | (2) | (3) | (4) |
| | Year FE | Year FE + GDP | Year FE, Country FE | Year FE, Country FE + GDP |
| WBL index score | 0.2300*** | 0.2043*** | 0.0525*** | 0.0544*** |
| | (0.0055) | (0.0057) | (0.0127) | (0.0127) |
| Real GDP per capita at t-3 | | 0.0001*** | | 0.0000 |
| | | (0.0000) | | (0.0000) |
| _N | 1,909 | 1,894 | 1,909 | 1,894 |
| R2 | 0.498 | 0.535 | 0.937 | 0.938 |
| Adjusted R2 | 0.494 | 0.532 | 0.931 | 0.932 |
| PANEL B: Percentage of the female workers in vulnerable employment | | | | |
| | (1) | (2) | (3) | (4) |
| | Year FE | Year FE + GDP | Year FE, Country FE | Year FE, Country FE + GDP |
| WBL index score | -0.6535*** | -0.2710*** | -0.0711*** | -0.0770*** |
| | (0.0243) | (0.0225) | (0.0093) | (0.0092) |
| Real GDP per capita at t-3 | | -0.0011*** | | 0.0001*** |
| | | (0.0000) | | (0.0000) |
| _N | 5,162 | 4,860 | 5,162 | 4,860 |

| | | | | |
|---------------------------------------------------------------------------|----------------|----------------------|----------------------------|----------------------------------|
| R2 | 0.126 | 0.402 | 0.989 | 0.990 |
| Adjusted R2 | 0.121 | 0.399 | 0.989 | 0.990 |
| PANEL C: Percentage of seats held by women in national parliaments | | | | |
| | (1) | (2) | (3) | (4) |
| | Year FE | Year FE + GDP | Year FE, Country FE | Year FE, Country FE + GDP |
| WBL index score | 0.2904*** | 0.2641*** | 0.1028*** | 0.1044*** |
| | (0.0085) | (0.0094) | (0.0157) | (0.0159) |
| Real GDP per capita at t-3 | | 0.0001*** | | -0.0002*** |
| | | (0.0000) | | (0.0000) |
| Number of observations | 3,965 | 3,874 | 3,965 | 3,874 |
| R2 | 0.311 | 0.321 | 0.842 | 0.844 |
| Adjusted R2 | 0.307 | 0.317 | 0.833 | 0.835 |
| Notes: Standard errors in parentheses. .01 - ***; .05 - **; .1 - *. | | | | |

Table A5: Legal inequality and the subcomponents of the WEF's Global Gender Gap index

| | Economic participation & opportunity score | | | | Educational attainment score | | | |
|-----------------------------------|-------------------------------------------------------|----------------------|----------------------------|----------------------------------|-------------------------------------|----------------------|----------------------------|----------------------------------|
| | (1) | (2) | (3) | (4) | (1) | (2) | (3) | (4) |
| | Year FE | Year FE + GDP | Year FE, Country FE | Year FE, Country FE + GDP | Year FE | Year FE + GDP | Year FE, Country FE | Year FE, Country FE + GDP |
| WBL index score | 0.4080*** | 0.3883*** | 0.0741** | 0.0815*** | 0.1653*** | 0.1313*** | 0.0137 | 0.0163 |
| | (0.0123) | (0.0131) | (0.0321) | (0.0315) | (0.0101) | (0.0105) | (0.0150) | (0.0151) |
| Real GDP per capita at t-3 | | 0.0000* | | 0.0000 | | 0.0001*** | | -0.0001*** |
| | | (0.0000) | | (0.0001) | | (0.0000) | | (0.0000) |
| Number of observations | 1,909 | 1,894 | 1,909 | 1,894 | 1,909 | 1,894 | 1,909 | 1,894 |
| R2 | 0.379 | 0.366 | 0.901 | 0.902 | 0.128 | 0.190 | 0.955 | 0.955 |
| Adjusted R2 | 0.374 | 0.361 | 0.892 | 0.893 | 0.122 | 0.183 | 0.950 | 0.951 |
| | | | | | | | | |
| | | | | | | | | |
| | Health & survival score | | | | Political empowerment score | | | |
| | (1) | (2) | (3) | (4) | (1) | (2) | (3) | (4) |
| | Year FE | Year FE + GDP | Year FE, Country FE | Year FE, Country FE + GDP | Year FE | Year FE + GDP | Year FE, Country FE | Year FE, Country FE + GDP |
| WBL index score | 0.0139*** | 0.0153*** | 0.0108*** | 0.0112*** | 0.3329*** | 0.2823*** | 0.1127*** | 0.1098*** |
| | (0.0012) | (0.0013) | (0.0037) | (0.0038) | (0.0145) | (0.0152) | (0.0349) | (0.0352) |
| Real GDP per capita at t-3 | | -0.0000 | | -0.0000 | | 0.0001*** | | 0.0001 |
| | | (0.0000) | | (0.0000) | | (0.0000) | | (0.0001) |
| Number of observations | 1,909 | 1,894 | 1,909 | 1,894 | 1,909 | 1,894 | 1,909 | 1,894 |
| R2 | 0.065 | 0.072 | 0.804 | 0.804 | 0.245 | 0.285 | 0.898 | 0.897 |

| | | | | | | | | |
|---------------------------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Adjusted R2 | 0.058 | 0.064 | 0.785 | 0.785 | 0.239 | 0.280 | 0.888 | 0.888 |
| Notes: Standard errors in parentheses. .01 - ***; .05 - **; .1 - *. | | | | | | | | |

Table A6: Legal inequality and labor market outcomes

| | Self-employed, female | | | | Contributing family workers, female | | | |
|----------------------------------------------------|-----------------------|---------------|---------------------|-----------------------------------|-------------------------------------|---------------|---------------------|---------------------------|
| | (1) | (2) | (3) | (4) | (1) | (2) | (3) | (4) |
| | Year FE | Year FE + GDP | Year FE, Country FE | Year FE, Country FE + GDP | Year FE | Year FE + GDP | Year FE, Country FE | Year FE, Country FE + GDP |
| WBL index score | -0.6302*** | -0.2501*** | -0.0747*** | -0.0803*** | -0.3828*** | -0.1941*** | -0.0793*** | -0.0854*** |
| | (0.0241) | (0.0222) | (0.0093) | (0.0091) | (0.0144) | (0.0145) | (0.0120) | (0.0120) |
| Real GDP per capita at t-3 | | -0.0011*** | | 0.0001*** | | -0.0005*** | | 0.0001*** |
| | | (0.0000) | | (0.0000) | | (0.0000) | | (0.0000) |
| Number of observations | 5,162 | 4,860 | 5,162 | 4,860 | 5,162 | 4,860 | 5,162 | 4,860 |
| R2 | 0.120 | 0.401 | 0.989 | 0.990 | 0.132 | 0.263 | 0.950 | 0.951 |
| Adjusted R2 | 0.115 | 0.397 | 0.989 | 0.990 | 0.127 | 0.258 | 0.948 | 0.949 |
| Employment in senior and middle management, female | | | | Employment in industry, female | | | | |
| | (1) | (2) | (3) | (4) | (1) | (2) | (3) | (4) |
| | Year FE | Year FE + GDP | Year FE, Country FE | Year FE, Country FE + GDP | Year FE | Year FE + GDP | Year FE, Country FE | Year FE, Country FE + GDP |
| WBL index score | 0.1466*** | 0.2508*** | -0.0438 | -0.0476 | 0.0468*** | 0.0539*** | -0.0643*** | -0.0502*** |
| | (0.0206) | (0.0233) | (0.0367) | (0.0367) | (0.0067) | (0.0075) | (0.0071) | (0.0072) |
| Real GDP per capita at t-3 | | -0.0001*** | | -0.0002** | | -0.0001*** | | -0.0002*** |
| | | (0.0000) | | (0.0001) | | (0.0000) | | (0.0000) |
| Number of observations | 991 | 991 | 991 | 991 | 5,162 | 4,860 | 5,162 | 4,860 |
| R2 | 0.084 | 0.148 | 0.826 | 0.827 | 0.032 | 0.035 | 0.909 | 0.915 |
| Adjusted R2 | 0.065 | 0.130 | 0.800 | 0.801 | 0.027 | 0.029 | 0.905 | 0.911 |
| Employment in services, female | | | | Employment in agriculture, female | | | | |
| | (1) | (2) | (3) | (4) | (1) | (2) | (3) | (4) |
| | Year FE | Year FE + GDP | Year FE, Country FE | Year FE, Country FE + GDP | Year FE | Year FE + GDP | Year FE, Country FE | Year FE, Country FE + GDP |
| WBL index score | 0.5480*** | 0.2545*** | 0.0903*** | 0.0817*** | -0.5949*** | -0.3084*** | -0.0260** | -0.0315*** |
| | (0.0188) | (0.0176) | (0.0099) | (0.0096) | (0.0207) | (0.0205) | (0.0119) | (0.0117) |
| Real GDP per capita at t-3 | | 0.0008*** | | -0.0001*** | | -0.0008*** | | 0.0002*** |
| | | (0.0000) | | (0.0000) | | (0.0000) | | (0.0000) |
| Number of observations | 5,162 | 4,860 | 5,162 | 4,860 | 5,162 | 4,860 | 5,162 | 4,860 |
| R2 | 0.170 | 0.421 | 0.981 | 0.983 | 0.151 | 0.333 | 0.977 | 0.979 |
| Adjusted R2 | 0.165 | 0.417 | 0.980 | 0.983 | 0.146 | 0.329 | 0.976 | 0.978 |

Notes: Standard errors in parentheses; .01 - ***; .05 - **, .1 - *.

Table A7: Legal inequality and economic classification of female employees

| | Extremely poor (female employees/100,000 population) | | | | Moderately poor (female employees/100,000 population) | | | |
|-----------------------------------|------------------------------------------------------|---------------|---------------------|---------------------------|-------------------------------------------------------|---------------|---------------------|---------------------------|
| | (1) | (2) | (3) | (4) | (1) | (2) | (3) | (4) |
| | Year FE | Year FE + GDP | Year FE, Country FE | Year FE, Country FE + GDP | Year FE | Year FE + GDP | Year FE, Country FE | Year FE, Country FE + GDP |
| WBL index score | -0.0107** | -0.0327*** | -0.0226*** | -0.0188*** | 0.0090*** | -0.0025 | 0.0127*** | 0.0142*** |
| | (0.0049) | (0.0048) | (0.0041) | (0.0043) | (0.0023) | (0.0021) | (0.0026) | (0.0027) |
| Real GDP per capita at t-3 | | -0.0002*** | | 0.0001*** | | -0.0001*** | | -0.0000*** |
| | | (0.0000) | | (0.0000) | | (0.0000) | | (0.0000) |
| Number of observations | 3,817 | 3,626 | 3,817 | 3,626 | 3,817 | 3,626 | 3,817 | 3,626 |
| R2 | 0.028 | 0.153 | 0.927 | 0.927 | 0.009 | 0.194 | 0.859 | 0.867 |
| Adjusted R2 | 0.021 | 0.146 | 0.924 | 0.923 | 0.001 | 0.188 | 0.852 | 0.861 |
| | Near poor (female employees/100,000 population) | | | | Not poor (female employees/100,000 population) | | | |
| | (1) | (2) | (3) | (4) | (1) | (2) | (3) | (4) |
| | Year FE | Year FE + GDP | Year FE, Country FE | Year FE, Country FE + GDP | Year FE | Year FE + GDP | Year FE, Country FE | Year FE, Country FE + GDP |
| WBL index score | 0.0263*** | 0.0186*** | 0.0083*** | 0.0090*** | 0.1710*** | 0.1976*** | 0.0158*** | 0.0105* |
| | (0.0019) | (0.0018) | (0.0029) | (0.0029) | (0.0056) | (0.0049) | (0.0055) | (0.0056) |
| Real GDP per capita at t-3 | | -0.0001*** | | -0.0001*** | | 0.0003*** | | 0.0002*** |
| | | (0.0000) | | (0.0000) | | (0.0000) | | (0.0000) |
| Number of observations | 3,817 | 3,626 | 3,817 | 3,626 | 3,817 | 3,626 | 3,817 | 3,626 |
| R2 | 0.050 | 0.179 | 0.766 | 0.777 | 0.247 | 0.500 | 0.924 | 0.930 |
| Adjusted R2 | 0.043 | 0.172 | 0.756 | 0.766 | 0.241 | 0.496 | 0.921 | 0.927 |

Notes: Standard errors in parentheses; .01 - ***; .05 - **, .1 - *.