Gender-Discriminatory Laws and Women's Economic Agency*

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Abstract

Recent years have seen widespread reforms in women's legal rights in many countries. In other places, restrictions on women's autonomy remain entrenched. Using World Bank data on gender-discriminatory from 2014 and 2016, this paper explores cross-country patterns in the association between gender-discriminatory legislation and various indicators of women's economic agency. We find that restrictions on legal capacity predict women's asset ownership and labor force participation, while discrimination in wage work and parental leave are associated with the size and direction of wage gaps. These findings highlight the importance of conceptualizing and measuring legal rights and their potential effects as multidimensional.

Keywords: women's rights, empowerment, gender and development, family law, discrimination

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1 Introduction

Laws and policies upheld by the state play a potentially important role in shaping women's economic agency, an important objective of human development. When women have access to income and resources, their lives improve and so does the society around them. Studies have found, for example, that women's increased labor force participation changes gender norms, the political participation of women, and fertility rates. Women who control property have more bargaining power at home and are more able to leave abusive relationships. Women who control household money tend to spend it in ways that benefit children and society, such as on food, clothing, medicine, and education (Agarwal 1994, 1997; Deere and De Leal 2014; Duflo 2012; Hakim 1996; Hashemi et al. 1996; Iversen and Rosenbluth 2008; Okin 1989; Panda and Agarwal 2005; Rosenbluth 2006; UN 2015).

Recent years have seen rapid and widespread changes in gender-discriminatory laws. International agreements such as the Convention on the Elimination of All Forms of Discrimination Against Women, political changes such as democratic transitions and the cessation of armed conflict, the mobilization of feminist movements and women in politics, globalization, and the spread of media, have pushed states to reform laws that restrict women's agency, including family and personal status laws, labor laws, and criminal codes, and to expand systems of social provision (Baldez 2014; Simmons 2009; Tripp 2015). Yet whereas most states have formally committed to egalitarian principles, their laws and policies concerning women continue to vary dramatically. In much of the world, states continue to uphold laws that restrict women's ability to work, inherit, sign contracts, or act autonomously in the

public sphere. There is still great variation in the legal frameworks of states, profound differences in state capacity to enforce laws, and variation in social norms (Hallward-Driemeier and Hasan 2012; Jivraj 2003; World Bank 2015).

To what extent are variations in gender-discriminatory laws reflected in women's economic conditions around the world? What types of legal provisions are associated with what types of outcomes? Relatively new global datasets of gender-discriminatory legislation as well as a broad range of indicators of empowerment offer an opportunity to get a global overview of the association between states' legal frameworks and economic outcomes for women. In this paper, we explore cross-country associations between different forms of gender-discriminatory legislation and macro-level indicators of women's economic agency.

Drawing on the World Bank's "Women, Business, and the Law" data from 2014 and 2016, covering 143 and 173 economies respectively, we create three indices of women's legal rights. The first two are *constraining* gender-discriminatory laws – restrictions on legal capacity and discrimination in wage work – and the third is an *enabling* law – parental leave. Whereas we might expect these laws to go together, in the sense that countries are more or less "progressive" or "advanced" across the board, this is not always the case. Though there is some correlation between these three types of laws, there are also many countries with seemingly contradictory legal frameworks.

Is there an association between these three types of laws and various indicators of women's economic agency?¹ We operationalize economic agency with five country-level indicators: women's bank account ownership, women's firm ownership, female labor force participation, the share of working women in the informal sector, and the wage gap between women and men.

Our theoretical expectation is that restrictions on women's legal capacity should matter the most for bank accounts, firm ownership, and labor force participation, while discrimination in wage work and parental leave should matter more for the informal sector and the wage gap. Looking at cross-sectional data at the country level, we cannot draw conclusions about the causal relationships between legal provisions and societal outcomes. However, the presence or absence of correlations between laws and outcomes (conditional upon key control variables) is still informative and can be the starting point for further country-specific enquiries. Even if the law is related to the economic conditions facing only certain groups of women, there should still be some country-level correlations between our legal indexes and indicators of women's economic agency.

We find that provisions on women's legal capacity – their ability to act and make choices

independently of the men in their lives about money, travel, work, property, and children – by far is the strongest predictor of the share of women with bank accounts, the share of women who participate in firm ownership, and female labor force participation. For its part, the existence of laws conducive to discrimination in wage work is associated with larger wage gaps between women and men. Finally, generous parental leave legislation is associated with smaller wage gaps, but only in economies with a large formal sector, which include the most developed countries.

In our data, greater legal capacity is the most consistent correlate of women's economic agency. Whereas it may seem intuitive to focus on labor codes and parental leave policies as determinants of women's economic agency, since they give rights and regulate relations in the workplace, more fundamental types of freedom codified in family laws, civil codes, and personal status laws may actually be more important, particularly in less developed economies. We agree with the World Bank's Women, Business, and the Law reports that egalitarian laws are necessary conditions for social change (see World Bank 2013, 2015). However, not all laws matter in the same ways and to the same degree. Our analysis suggests that egalitarian reform of family law may be the most crucial precondition for empowering women economically.

Family law is the most politically fraught and contentious arena of women's rights reform, with the exception of abortion. Many actors, including but not only religious authorities and the state leaders they influence, frame family law as a matter of national and cultural identity. They claim that family law reform touches upon the status of religious and cultural groups, the public standing of religion, and other aspects of religion-state relations, and resist its reform to defend the status quo in these other areas (Charrad 2001; Grzymała-Busse 2015; Htun 2003; Kang 2015; Moustafa 2013; Razavi and Jenichen 2010). However, the portrayal of family law as cultural and religious conceals its political construction, its economic functions, and distributive impacts (Halley and Rittich 2010). The allocation of rights and duties within the family touches upon culture and kinship relations but allocates material power and rewards (Shachar 2001).

The paper proceeds as follows. Section 2 discusses the multidimensionality of both women's legal rights and economic agency, theoretically developing three categories of gender-discriminatory legislation that may affect women's economic situation and five indicators of women's economic agency. In Section 3 we illustrate and discuss global patterns in our three categories of laws. In Section 4 we show output from regression models exploring the associations between these laws and our five indicators of economic agency. Using both raw

and residualized correlation plots between our legal indicators and our measures of economic agency, we also show the large variation in the data. Section 5 concludes.

2 The multidimensionality of women's rights and empowerment

People often talk about women's rights and women's empowerment as one issue or as a single basket of issues. Instead, we should think about these issues as multidimensional (see Fraser 2007; Fraser and Honneth 2003; Young 1990, 2002). Advancing women's rights involves challenging distinct institutions, including the gender status hierarchy, systems of economic production, relations between states and markets, and the governance of reproduction and kinship. Some rights challenge religious and cultural claims to govern kinship and reproduction. Others aim to advance women's position and opportunities vis-à-vis the male-dominated sphere of wage work. Still other rights attempt to shift responsibility for social provision and reproductive labor from the family and market toward the state.

Htun and Weldon (2018) refer to these different aspects of women's rights as issues of doctrinal politics, status politics, and class politics, and argue that legal change to advance each of these issues results from distinct processes. Whereas doctrinal politics involves a clash between the state and religious groups, status politics involves feminist movements combatting the status hierarchy that elevates masculinity and devalues femininity, and class politics is primarily driven by Left parties and labor unions.

2.1 Laws that affect women's economic agency

Following the logic of disaggregating women's rights, we classify laws that affect women's economic agency according to the structures they challenge, and the types of effects they may have. We first consider the legal provisions that constrain women's mobility, choices, and actions. These laws, which we classify as "restrictions on women's legal capacity," include rules on the rights and obligations of spouses, inheritance and property, and requirements that married women seek permission from husbands in order to work outside the home, open a bank account, apply for a passport, and the like. Provisions on legal capacity are embedded in family laws, personal status laws, and civil codes, many of which are very old. In the history of many societies, family laws were not initially governed by the state, but by religious and cultural groups that managed kinship and reproduction. Even as states

usurped the power of subnational groups, they often imported religious principles into secular law. Others, including Israel, India, Kenya, and Malaysia created multiple legal systems in which different communities were governed by their respective religious laws (Charrad 2001; Glendon 1989; Htun and Weldon 2015; Merry 1988; Sezgin 2013; Williams 2006).

Change to family laws to expand women's rights is often slow and politically contentious. Actors on the ground claim that not just women's rights but also the public standing of religion is at stake in change. They claim to resist reform to preserve religion's role and to uphold their interpretations of religious doctrine (Htun 2003; Kang 2015; Moustafa 2013; Razavi and Jenichen 2010). As a result, countries can "modernize" their laws in other areas while presiding over conservative and traditional family laws. Consider the case of Israel, which continues to adhere to the *millet* system of the Ottoman empire with respect to family law. Religious courts of 14 constitutionally-recognized communities preside over marriage, divorce, and other family matters. In spite of formal guarantees of equality, Jewish women enjoy far fewer rights than men over the terms of marriage and the ability to divorce (Sezgin 2013).

This allegedly religious resistance to women's rights does not touch upon all areas of women's issues in the same way (Htun 2003; Htun and Weldon 2018). Consider laws that affect women's opportunities and treatment in the workplace – state-sponsored discrimination in wage work. These include bans on, or access to, certain types of work, such as mining, factories, construction, night work, or hazardous work. In an effort to actively prevent discrimination, these laws may also include requirements for equal pay and treatment, as well as bans on discrimination in hiring and promotion, protection of pregnancy, and rights to a job after maternity leave. Many of these provisions are embedded in labor laws or in special bodies of legislation such as equal opportunities laws or civil rights laws. We classify these provisions as "laws conducive to discrimination in wage work." In most countries, laws on women's status in the workplace do not form part of family or civil codes.

In the history of many societies, both public and private economic organizations treated women workers very differently from men. In the United States, for example, it was normal for companies to ban women from managerial positions, manufacturing and night work, and to fire women once they got pregnant. African Americans and other minorities were treated the same way (Dobbin 2009). In Japan, the 1947 Labor Standards Law banned women from "hazardous" occupations, night work, and much overtime work, while permitting sex discrimination in hiring, promotion, training, benefits, and job assignments. Japanese companies had distinct "career" tracks for men and women, with the former going to senior

and management positions and the latter to clerical work (Parkinson 1989). The situation changed in the U.S. with the Civil Rights Act of 1964, which outlawed discrimination, and in Japan with the Equal Employment Opportunity Laws of 1985 and 1997. Notably, the reform process for both of these bodies of law involved the mobilization of feminist movements, women in politics, and international norms. It did not invoke a fight between the state and religious authorities (Htun and Weldon 2018).

A third important dimension of women's legal rights concerns the sphere of social reproduction. In most societies, women do the bulk of the care work that reproduces human beings and social relations. They care for children, the sick and the elderly, gather and prepare food, and clean and maintain the household. Though these activities are often rewarding, they tend to be unpaid, and thus render women economically dependent on, and vulnerable to, their fathers, spouses, and partners. In order for women to have viable economic independence, they need to have access to wage work. But then who does care work? In many contexts, enabling women to combine wage work and care work involves shifting the responsibility for reproductive labor from the family to the market or the state. In other words, women's access to wage work and economic independence depends on "outsourcing" some degree of care work (Folbre 1994; Htun and Weldon 2018; Morgan 2005; O'Connor et al. 1999; Wright et al. 2009).

Shifting care work to the market generates inequalities among women. Women from richer families can afford to hire nannies, maids, cooks, and gardeners, or to place children and elderly in market-based care services. Poor women are more dependent on other family members or on the state. Expanded state responsibility for reproductive labor thus advances women's rights to the degree that it enables most, or at least a higher share of women, to combine wage work and care work, to enjoy some economic independence while also providing for their families. Expanding social provision and the welfare state to enable work-life balance often triggers conflict between a distinct set of champions, such as Left parties and unions, and another group of opponents, such as Right-wing parties and business groups (Htun and Weldon 2018).

Unlike women's basic legal capacity set in family law, or their rights in the workplace set in labor law, women's ability to combine work and family is shaped by systems of social provision, including access to paid parental leave, child care, education, health, and other family supports. Our focus here is on the enabling policy that is the most comparable across different countries: publicly paid parental leave, including maternity leave, paternity leave, and gender-neutral parental leave.

As this discussion suggests, legal rights consist of multiple baskets of provisions, each of which is embedded in a distinct legal code or policy framework. Each of these types of laws has a distinct history, and animates distinct sets of actors and conflicts. It is thus not surprising that laws vary within countries as well as across them. Some countries have generous parental leave policies, but hold onto restrictions on women's capacity in family law. Others may have few restrictions on women's legal capacity, but permit discrimination in wage work. We should also expect to see different outcomes associated with these different types of laws.

2.2 Conceptualizing and measuring women's economic agency

We define economic agency as the ability to make independent economic choices, based on both the disposition and capacity to do so. We understand economic *empowerment* to mean the change in economic agency from worse to better (see Kabeer 1999; Sen 1979). How can these ideas be further conceptualized and measured in practice?

The terms agency and empowerment have been widely used in development discourse over the past few decades, reflecting an evolution in conceptual and programmatic orientation from "women in development," to "gender and development," and to "empowerment" (Moser 2012; Razavi and Miller 1995).² At the same time, these concepts have been the object of much criticism, especially for the way they are put into practice by development agencies, NGOs, and Western media. In their classic study, Goetz and Gupta (1996) showed that the way that donors, NGOs, and international organizations measured and evaluated "empowerment" – primarily in terms of narrow, quantitative measures, such as repayment rates, loan demand, rise in income, and so on - neglected the ways that gendered power relations could obstruct project goals and produce variation in effectiveness. More recently, Cronin-Furman, Gowrinathan, and Zakaria (2017) claim that many "empowerment" projects are more about making Western feminists feel good about themselves than they are about improving the lives of their "beneficiaries." The implication of multiple agendas in the development project tends to obscures the structural circumstances driving the marginalization of many women in the Global South. As Beck (2017) puts it, the need to evaluate and demonstrate results leads NGOs to "turn women into numbers."

In political science, approaches to measuring empowerment have focused more on questions of culture and political power than on economic agency. Inglehart and Norris (2003; 2011), and others analyzing the World Value Surveys and other regional surveys, as well as more locally-focused surveys, have painted global differences in gender relations and women's

rights primarily in terms of cultural attitudes. As for political power, the Interparliamentary Union's ranking of countries according to the share of parliamentary seats occupied by women has arguably become the most prevalent and easy to access indicator of the relative global status of states vis-à-vis women, and thereby created a hierarchy among them (Htun 2016; Towns 2010).

The ongoing Varieties of Democracy (V-Dem) project addresses many of the concerns about the unidimensionality of measures of empowerment. Sundström et al. (2017, 4) focus explicitly on *political* empowerment, which they measure with indicators of civil rights, access to justice, women's *de facto* participation in civil society organizations and as journalists, and their presence in elected office. The V-Dem project thus follows a tradition of scholarship emphasizing women's collective action as critical to their empowerment and rights (see, e.g., Elson 1995; Teele 2018; Weldon 2011).

Our focus here is on *economic* empowerment. We explore different aspects of economic empowerment at the country level, using the best cross-country indicators we have found. At such an aggregate level, measuring the *disposition* to make independent economic choices is difficult. Instead, our focus is on the *capacity* to make independent economic choices, since having money, land, a home, or a "room of one's own" may create conditions for women to be more independent, better able to make their own decisions, and less vulnerable to the power and threat of violence of others. Access to resources gives women the potential to exit from abusive social relations as well as bargaining power in the family (Doss 2013; Hirschman 1970; Iversen and Rosenbluth 2010; Okin 1989; Panda and Agarwal 2005).

Access to resources may be necessary, but it is not sufficient, for women to make autonomous choices. Social standing and dignity are also crucial. If prevailing patterns of cultural value stigmatize and devalue women, their choices may not be respected and their voices carry little weight. However, it is also hard to imagine that cultural status and political power are sustainable, much less generalizable to the majority of women, without the spread of economic power (cf. Deere and De Leal 2014).

We explore women's access to resources through five indicators (each described in more detail in Appendix 5). First, we look at access to their own money, operationalized as the percentage of women in a country with a bank account (from Global Findex). In many parts of the world, families demand that women hand over all money they earn to the household head – usually a husband, parent, or parent-in-law (see, e.g., anonymous 2017; Chowdhury 2017, 115). In such contexts, independent access to formal banking institutions may give women the ability to retain and manage money.

Second, we are interested in asset ownership. n spite of data from various countries that affirms a gender asset gap (Deere and Doss 2006), to our knowledge, there is no consistent cross-country measure of women's overall asset ownership, a gap the United Nations EDGE project is seeking to fill.³ As a proxy we use an indicator for the percentage of firms with female participation in ownership from the World Bank Enterprise Data series.

Our third measure is the classic measure of women's economic agency: female labor force participation, as estimated by ILO. While this measure gives us a sense of how many women are in the labor force, it does not distinguish between women working in the formal and informal sector, or between women seeking jobs and employed women. Nor does it capture the quality or nature of jobs or industries in which women work. Women's participation in the labor force has increased over the last few decades, although the growth has stagnated and even reversed in recent years (ILO 2016). There is substantial variation across countries, particularly in comparison to men's labor force participation. In countries such as Algeria and Syria, the ratio is below 25%, whereas more women than men are employed in countries such as Rwanda and Malawi.

Our fourth measure is the share of women in a country working in the informal sector. Most Global South countries have a large informal economy, which is not taxed, regulated, or monitored. This informal economy or informal sector includes both self- and wage-employment and consists of coping strategies such as survival and subsistence work, including street vending, domestic work, casual construction and landscaping, and family workers. Starting in the 2000s, the definition of the informal economy expanded from informal enterprises to include all informal employment relationships, even those involving formal enterprises (Chen 2012). In the informal sector, job security, working conditions, and pay tend to be worse than in the formal sector (Avirgan et al. 2005). Those working in informal sector jobs are more likely to be poor, as well as locked out of state-supported pension schemes, family leave provisions, and other benefits (Bertranou 2001; Mesa-Lago 2009). Moreover, working in the informal sector, as self-employed or as an employee, can be an impediment to qualifying for credit and loans (Avirgan et al. 2005).

To measure the share of women working in the informal economy, we use a proxy variable which is strongly correlated with other data on the informal sector: the percentage of employed women who are classified as "contributing family workers" by the ILO. This includes workers categorized as "self-employed" and contracted by an enterprise operated by a family member or someone in the same household. The family work portion of the informal economy is dominated by women and is more likely to have lower pay and poorer,

if any, social protection (Chen 2001). The ILO has an official indicator on the informal sector covering fourty-two countries, all observed at different times over the last decade. Our proxy measure is available for 141 countries and is therefore preferable for cross-country analysis. It is correlated with the official informality measure at 0.44 for the fourty-two countries for which the latter is available.

Our fifth indicator is wage gaps between men and women, calculated as the ratio of male to female earnings. This measure is provided by the ILO for fifty-four countries, varying from 0.4 to fourty-six, where zero means that men and women earn the same for the same type of work and positive values signify that men earn more than women.⁴ In Appendix 5 we provide summary statistics of these five measures and provide a list of the countries for which we have data by indicator.

2.3 Empirical expectations

In the next sections, we explore global patterns of gender-discriminatory legislation and how these correlate with our five country-level indicators of women's economic agency, covering women's access to resources, to employment, participation in the formal sector, and equal wages. What associations should we expect to see?

Restrictions on legal capacity should be a strong predictor of asset ownership, including access to bank accounts and participation in firm ownership, and overall labor force participation. If women are legally unable to work, sign contracts, open bank accounts, and the like, without their husband's permission, they are less likely to exit the household and to move and act in the public sphere. Though not all husbands exercise their legal patriarchal authority,⁵ restrictions reinforce the power of those who want to. More critical are the gender-discriminatory social norms and practices that formal legal restrictions uphold and legitimize. Women who attempt to exercise agency confront actors in banks, courts, schools, travel agencies, and government offices who demand proof of marital authorization before undertaking the requested transaction.⁶ Barriers imposed by frontline employees and bureaucrats, not to mention informal social sanctions such as ostracism and gossip, determany women from economic activities.

Legal capacity may also affect the share of women working in the informal economy, particularly in family-owned enterprises, since such work may not require them to leave home, or otherwise interact with non-family members. In other words, informal family work is the one type of work that women may be able to do even in highly restrictive contexts, so we may see it spike when legal capacity is constrained. On the other hand, whether

women work in formal and informal enterprises and relationships could also be a function of provisions conducive to discrimination in wage work. Labor laws that discriminate against women make it harder for them to obtain and persist in formal-sector work, which could cause them to turn to more informal work. We are therefore ambivalent about whether women's participation in the informal economy will be driven more by legal capacity or by workplace discrimination laws.

In addition, we expect that laws conducive to discrimination against women will affect the relative earnings of women and men. Such discriminatory laws enable firms to treat men and women differently: firms may track them into different career paths, give men jobs denied to women, promote men and not women, pay men more, and so forth. We therefore expect that discriminatory labor laws will be inversely correlated with the wage gap.

Finally, we expect that access to paid parental leave will make it possible for more women to pursue longer-term careers in the formal sector on the same terms as men. Parental leave implies that women do not need to exit the labor force for pregnancy and child care, and are therefore more available to rise in the organizational hierarchy, get promoted, and earn higher wages. Paid parental leave may provide incentives for women to get formal sector jobs, and should also be associated with a smaller wage gap between women and men.

Before proceeding, we mention a few caveats. Laws shaping women's agency may not have much effect in contexts where the rule of law is weak. Women may have more agency than the law permits or, conversely, less freedom than the law intends. We explore some of these discrepancies in the final section of the paper, by restricting the data to countries with high rule of law and with a small informal sector.

In addition, when looking at the cross-country patterns it is important to bear in mind that the nature of our data restricts our analysis to the national level, so we are unable to explore and account for sub-national variation in all of these outcome measures. Some countries in the dataset have multiple legal systems, while in many others, the state applies and enforces laws differentially throughout a country and across different groups of women.

Finally, although our theoretical discussion implies a causal relationship between the laws and outcomes, studying such causal relationships is difficult and can not done by looking at cross-sectional country-level data. Using a related dataset with over time observations for a sub-set of countries, Gonzales et al. (2015, 19) find that in half of the countries that granted legally equality to women, female labor force participation rose by some five percentage points in the following five years. We cannot make similar claims with the larger sample of cross-sectional data we analyze in this paper. Readers should not interpret the cross-country

3 Three types of gender-discriminatory legislation: global patterns

Data collected by the World Bank's "Women, Business, and the Law" group offers a unique opportunity to explore the associations between different types of gender-discriminatory legislation and our five indicators of women's economic agency. Since the inception of the Women, Business and the Law project in 2008, the team has collected data on a wide range of laws and regulations to measure global progress toward gender equality. They gather data on seven areas: women's ability to gain access to institutions (such as gender quotas in parliament), women's ability to use and own property, restrictions on women's work, incentives for women's work, the ability to build credit, the weight of women's testimony in court, and laws protecting women against violence. The data are collected through surveys of legal experts in each country, with follow-up research to verify the validity of responses, and develop citations for all relevant laws. They have released reports every two years since 2010.

The reports and underlying datasets include a number of questions that allow us to create measures for our two types of constraining laws – restrictions on legal capacity and discrimination in wage work – and enabling laws – publicly paid parental leave. In this section we look at the data from the 2016 report, which covered 171 countries. In the next section, where we look at the associations between laws and indicators of women's economic agency, we analyze data from the 2014 report in order to avoid an illogical time-ordering of our "explanatory" and "outcome" variables.

For our first measure of constraining laws, we selected fifteen questions that appeared in both the 2014 and 2016 datasets and indicated legal restrictions of women's legal capacity. We combined these indicators into an index, so that countries with no constraining gender-discriminatory legislation were assigned the value zero and the maximum value could be fifteen, though the maximum value in the data was eleven, as illustrated in Figure 1. The full list of questions included in this index can be found in Appendix 5, but it includes questions like "Can a married woman work outside her home in the same way as a married man?" and "Do female and male surviving spouses have equal rights to inherit assets?"

The majority of countries had few legal restrictions on women's legal capacity. Beyond the ninety-seven with no restrictions, another twenty-five countries had only one restriction, skewing the mean value to 1.7. The most common legal restriction was not allowing married women to confer citizenship to non-national spouses in the same way as married men (26% of countries). Similarly, inequality in rights to inheritance was common, as 20% of countries did not convey equal rights to daughters and sons, nor to surviving spouses. The countries with 11 restrictions were Iran and Sudan, followed by Jordan, Qatar and Saudia Arabia with 10.



Figure 1: Restrictions on women's legal capacity

Note: Index based on data from the 2016 "Women, Business, and the Law" report. The questions from the report included in the index are listed in Appendix 5.

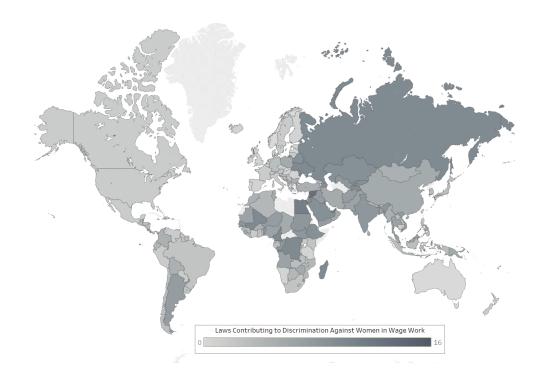
Our second category of constraining laws includes legal provisions that, through their codification or omission, contribute to discrimination against women in wage work. This index runs from zero to fourteen and is based on questions in the World Bank dataset, including labor codes that ban women from certain professions, types of work, or conditions of work, and the failure to include safeguards for pregnant women.⁸

Here the variation was greater, as shown in Figure 2. Only a small minority of countries – Australia, Norway, Portugal, St. Lucia, and Slovakia – had a score of zero, and

seven countries, including Mali, Egypt, Syria, Kuwait, United Arab Emirates, the DRC, and Madagascar, had a score of more than ten. Syria had the highest score of fourteen: non-pregnant and non-nursing women were not allowed to do the same jobs as men and there were no provisions preventing discrimination against pregnant women in hiring. The average number of legal provisions contributing to discrimination in wage work was 4.8.

The most common regulation affecting discrimination in wage work was the lack of regulations to ensure equal treatment. For example, 91% of countries did not have a law prohibiting employers from asking about family status. Further, 60% of countries did not have a law mandating nondiscrimination in hiring and 59% of countries did not have a law mandating equal pay for equal work. Some countries where gender equality is exceptionally strong, such as Sweden, did not have a score of zero on our index because they did not have these nondiscrimination rules.

Figure 2: Laws contributing to discrimination against women in wage work



Note: Index based on data from the 2016 "Women, Business, and the Law" report. The questions from the report included in the index are listed in Appendix 5.

Finally, to look at enabling laws we focused on publicly paid parental leave. We code this measure as the number of days of paid parental leave (maternity, paternity or parental) covered in full or in part by the government.⁹ The cross-country pattern for the number of days of parental leave is illustrated in Figure 3. We can see that most countries (70%) had such provisions, with the U.S. a notable exception among the advanced economies. However, the extent of the policies varied, from the 30 days for the mother (and one day for the father) in Tunisia to the combination of 140 days of maternity leave and 1,025 days of parental leave in Russia. The global average of total leave was 168 days, comprised of an average eighty-six days of parental leave, eighty days of maternity leave, and two days of paternity leave.



Figure 3: Countries with publicly paid parental leave

Note: Measure based on data from the 2016 "Women, Business, and the Law" report (see Appendix 5).

These three legal dimensions on which we focus are correlated, but not as strongly as some might expect. The strongest correlation (0.52) was between restrictions on women's legal capacity and the laws contributing to gender-discrimination at work. The weakest (-0.23) was between publicly paid parental leave and laws affecting discrimination at work.

The final correlation between restrictions on legal capacity and publicly paid parental leave was -0.4.

Considering all three dimensions, only four countries had no restrictions on women's legal capacity, no laws contributing to discrimination in wage work, and some form of governmentally paid parental leave: Australia, Norway, Portugal, and Slovakia. Conversely, thirteen countries had relatively high numbers of restrictions on legal capacity in addition to laws that contribute to workplace discrimination and no paid parental leave. These include Malaysia, the DRC, Oman, Afghanistan, Kuwait, Palestine, Iraq, Yemen, the United Arab Emirates, Syria, Qatar, Saudi Arabia and Sudan.

We found three interesting patterns in the relationship between restrictions on women's legal capacity and laws contributing to workplace discrimination. First, as indicated by the relatively high correlation, a little over half of the countries in the 2016 data had similar levels of these two measures. There were fifty-one low-low countries (less discrimination) and thirty-one high-high countries (more discrimination). The low-low, less discrimination category, shaded in lighter colors on the map, includes OECD countries, but also several Latin American and southern African countries. The high-high, more discrimination category, shaded in darker colors on the map, includes several countries in the MENA region and some Sub-Saharan African countries. However, there is not a complete overlap. Saudi Arabia, Sudan, and Iran have severe restrictions on women's legal capacity, but are not in the "worst" category with respect to discrimination in wage work.

The second pattern characterizes countries that have no restrictions on legal capacity but higher numbers of laws that contribute to workplace discrimination. Sixteen of these twenty-five countries are formerly communist, reflecting an enduring policy legacy from that era. Communist regimes removed religiously-based family and personal status laws and gave women full legal capacity. They supported women's labor force participation with paid maternity leave and childcare. Simultaneously, the regimes promoted workplace segregation, so that women were markedly underrepresented in better paying jobs, and also suppressed the civic organization of feminist movements that have been crucial to advocating women's rights in the workplace in other countries (Htun and Weldon 2018).

The third notable pattern was that very few countries had multiple restrictions on women's capacity and few laws contributing to workplace discrimination. Only seven countries fell into this high-low category, including Barbados, Djibouti, Equatorial Guinea, Haiti, Philippines, Tanzania, and Uganda. In these latter two cases, the women's movement was strong enough to secure some gains in women's rights in the public sphere of the workplace,

but confronted entrenched opposition from traditional authorities in its efforts to reform laws governing kinship relations (Tripp et al. 2008). In summary, these patterns suggest that we are more likely to see countries with no legal restrictions on capacity but with laws that contribute to workplace discrimination, whereas the reverse is uncommon.

What about the relationship between laws contributing to discrimination in wage work and publicly paid parental leave? Globally, there is a correlation between these types of laws. Among the incongruent cases, fourteen countries have high numbers of laws that contribute to workplace discrimination but also have over 120 days of government paid parental leave. This grouping is predominately formerly communist countries. Within the other incongruent group of countries with fewer laws that contribute to workplace discrimination but without any publicly paid parental leave, there are fourteen countries. This is a generally a scattered group but does include a geographic cluster of east African countries: Kenya, Malawi, Rwanda, Tanzania, and Uganda.

Finally, we consider the association between restrictions on women's capacity and publicly paid parental leave. Half of our countries conformed to the conventional wisdom expecting a correlation between more legal capacity and more government support on the one hand and less legal capacity and no government support on the other. Iran was the only country that populated the incongruent category of numerous restrictions on women's capacity with strong government support for parental leave, with 270 and fourteen days of maternity and paternity leave, respectively. The other incongruent category of more legal capacity with little or no government support for parental leave is a disparate group of eighteen countries with no discernible clustering that includes the United States.

Our descriptive analysis of global patterns in women's legal rights, similarly to patterns discussed in Htun and Weldon (2018), shows that countries do not make progress in laws in a uniform way. Just short of half of the time, countries can be strong on one dimension and weak on another. There is also clear evidence of clustering by geography and history. East African countries have no government support for parental leave but few laws contributing to workplace discrimination, while many countries in the MENA region have severe barriers on women's legal capacity. Formerly communist countries tend to have more laws that contribute to workplace discrimination while simultaneously having few legal restrictions on women's capacity and generally more government support for parental leave.

4 Gender-discriminatory laws and women's economic agency

Restrictive laws impede women's agency, while more egalitarian laws have the potential to create the conditions for women's empowerment. The World Bank reports from 2014 (2013, 15, 21) and 2016 (2015, 6) show negative correlations between the total number of gender discriminatory laws and women's labor force participation as well as the share of firms in the country where women participate as owners. This aggregate analysis, which groups laws of potentially disparate types together, may obscure the ways in which different categories of laws are correlated with different aspects of women's empowerment. Drawing on a panel dataset of legal provisions in a sample of emerging markets and developing countries from the World Bank data, Gonzales et al. (2015, 25) show a clear association between women's property and inheritance rights and female labor force participation. In our analysis, we similarly disaggregate laws on women's rights to explore the multi-dimensionality of the law and its possible heterogeneous effects on empowerment.

Analysis of cross-country data in one period of time does not permit us to identify any causal relationships between laws and socio-economic outcomes. However, we can look for correlations that are consistent with our theoretical expectations. Disaggregating both the gender-discriminatory laws and the concept of economic agency, as discussed above, enables us to gain more understanding of what drives the overall positive associations between legal provisions and women's economic agency, and also identify and explore interesting outliers in the data. This aggregate overview can then serve as a starting point for exploring the causal effects of specific laws within single countries.

In the previous section we looked at the legal data from 171 countries from 2016. However, we are not able to find indicators of empowerment that cover this many countries, nor that are so recent. Given that there were more than ninety-four legal changes (across sixty-five) countries in just the two year-period before the 2016 data was published (World Bank 2015, 7), it is problematic to look at associations between explanatory variables (laws) that are measured later in time than our outcome variables of interest (indicators of women's economic agency). To look at the associations between legal data and outcome data that are measured more closely in time, we turn to the 2014 legal data (see World Bank 2013). This dataset includes a similar set of questions as the 2016 data, but covers 143 economies, from which we exclude Puerto Rico and Hong Kong so that the dataset consists of 141 countries.

Coding the same three indicators of gender-discriminatory legislation that were discussed

in the previous section, we find that fifty-five (39%) of the included countries had some form of restriction on women's legal capacity, with a range between zero and elleven and a mean of 1.6). 137 (97%) of the countries had some form of gender discrimination in wage work (the range is 0–14, with a mean of 4.9). 102 countries (72%) had some form of publicly paid parental leave (here the range is 0–1291, with a mean of 189, using the log number of days the range is 0–7.2, with a mean of 3.7). Summary statistics for our five outcome variables are provided in Table 10 in Appendix 5.

Table 1: Regression models of five indicators of women's economic agency on three types of gender-discriminatory laws

	Bank	Firm	Labor	Informal	Wage
	account	ownership	force	sector	gap
Restrictions on Legal Capacity	-0.78**	-2.24**	**-2.97**	* 0.41	-1.78
	(0.27)	(0.53)	(0.53)	(0.36)	(1.08)
Discrimination in Wage Work	-0.15	-0.57	-0.31	0.05	1.05^{*}
	(0.24)	(0.57)	(0.47)	(0.25)	(0.49)
Log Days of Paid Parental Leave	0.50^{\dagger}	0.09	-0.88	-0.47	-0.87
	(0.27)	(0.59)	(0.62)	(0.37)	(0.75)
Controlling for male rate	Yes		Yes	Yes	
Controlling for GDPpc	Yes	Yes	Yes	Yes	Yes
N countries	125	81	136	136	52
R^2	0.96	0.20	0.39	0.77	0.15
adj. R^2	0.96	0.16	0.36	0.76	0.08

Note: Heteroscedasticity-consistent standard errors in parentheses. See Appendix 5 for a description of the variables used in the models. † significant at p < .10; *p < .05; **p < .01; ***p < .001

The expectation based on our theoretical discussion is that our three legal indicators should be associated with different indicators of economic agency: restrictions on legal capacity should be a predictor of women's ownership of assets, including access to bank accounts and ownership of firms, as well as women's overall labor force participation. Limits on women's legal capacity may also be associated with a higher share of women working in the informal economy, particularly in family enterprises.

Discrimination in wage work, we hypothesized, should be associated with a greater share of women working in the informal sector as formal sector jobs are more closed to them, as well as with greater gender wage gaps. Finally, paid parental leave, which enables women to pursue uninterrupted careers and promotions, should be associated with a smaller gender wage gap.

Running bivariate regression models of our five outcomes variable on our three indicators

of gender-discriminatory legislation, we find strong correlational patterns between almost all the variables. However, these bivariate correlations are confounded by overall development levels and also by each other. Table 1 shows multi-variate regression models where we include all three legal indicators, and control for countries' GDP per capita in 2014.¹⁰ Where relevant, we also control for the male rate of the outcome variable, since what we are interested in is the gap between women and men, rather than the overall state of the economy.

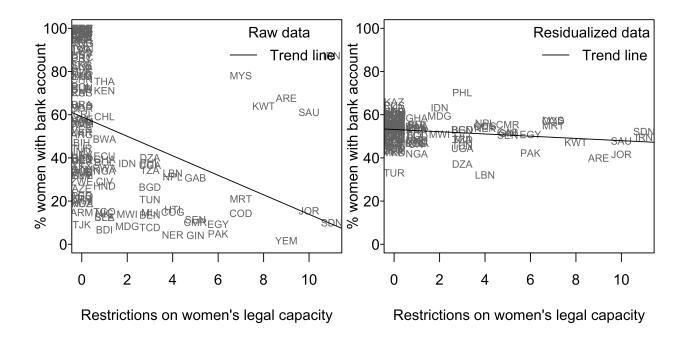
In these multi-variate specifications, only the index of restrictions on legal capacity is significantly associated with women having bank accounts, female firm ownership, and female labor force participation. For its part, discrimination in wage work is a significant predictor of the wage gap. When it comes to the share of working women in the informal sector, all the coefficients point in the expected direction, but none of the legal indicators are significantly associated with this variable once we control for the share of male workers in the informal sector and with GDP per capita.

In the specifications shown in Table 1, parental leave does not show up as a significant predictor of any of our outcome variables. This result is not surprising, since parental leave is unlikely to affect the condition of women in the vast majority of Global South economies with large informal sectors. Paid parental leave usually applies only to formal sector jobs, and often only in the public sector. Access to paid parental leave should affect aggregate indicators of women's empowerment only in countries with a small informal sector. In Appendix 5 we show output from regression models for each of the five outcome variables where we restrict the sample of countries to the ones with an informal sector that is below the median value in the data, and also to countries where legal enforcement is above the median value in the data.¹¹ In these specifications, despite a small sample size, the log number of publicly paid parental leave days is strongly predictive (p < .01) of a smaller wage gap (Table 6) and somewhat predictive (p < .1) of the share of working women in the informal sector (Table 5).¹²

4.1 Correlations and outliers

In Figures 4–7 we illustrate the statistically significant patterns reported in Table 1. In each figure the left plot shows the bivariate association between the the legal indicator and the outcome variables. In Figure 4, for instance, the left plot shows a strong negative correlation between restrictions on women's legal capacity and the percentage of women with a bank account in the same country. A list of all the countries, and their country codes, in the data is provided in Appendix 5.

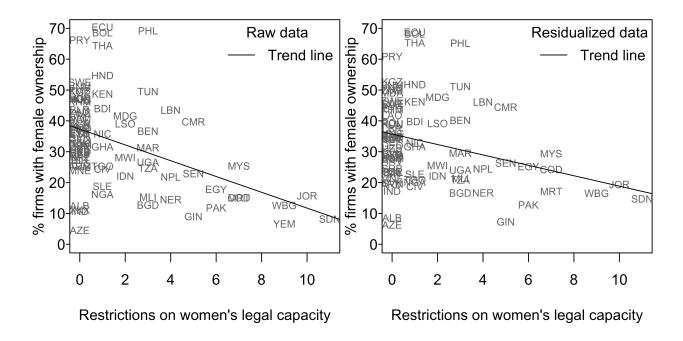
Figure 4: Restrictions on legal capacity and women having bank accounts



It is hard to interpret such bivariate correlations, as it is unclear what values we should expect in the different countries, given their overall economic situation. The right plot in each figure therefore shows the bivariate association between restrictions on women's legal capacity and residualized values of the outcome variables. In Figure 4, the residuals are derived from regression models explaining the percentage of women with a bank account with the GDP per capita in the country in 2014, the percentage of men with a bank account in the same country, and our measures for discrimination in wage work and paid parental leave. We add the average value of female bank account ownership to the residuals to make the Y-axis comparable across the two plots.

The trend line in the right-hand plots can be interpreted as the correlation between the outcome variable and the laws, *conditioning* on important potential confounders. As we can see in the right plot in Figure 4, most of the variation in the data could be explained by these other variables and the association between the residuals and our legal indicator is much weaker than in the bivariate plot. The weak negative association that we still see in

Figure 5: Restrictions on legal capacity and female firm ownership



the plot reflects the weak (but significant) coefficient of -0.78 in the first column of Table 1.

Figure 4 clearly shows why it is problematic to read too much into the bivariate correlations between variables. The nature of the association can change considerably when we include even just a few control variables. In Appendix 5 Table 8 and 10 we show similar plots for the association between discrimination in the work place and bank account ownership, and publicly paid parental leave and bank account ownership. In both of these figures, the left panels show strong correlations, while the inclusion of control variables in the panels on the right makes the relationship go away.

Including control variables produces a less dramatic difference in our study of outcome variables such as women's ownership of firms. In the left panel of Figure 5, for example, we see a strong, negative correlation between restrictions on women's legal capacity and the share of firms where women participate in ownership. The right panel shows the same association after controlling for GDP per capita and other types of laws. On the right side of the right panel, we see countries such as Sudan, Jordan, and Yemen, which have many

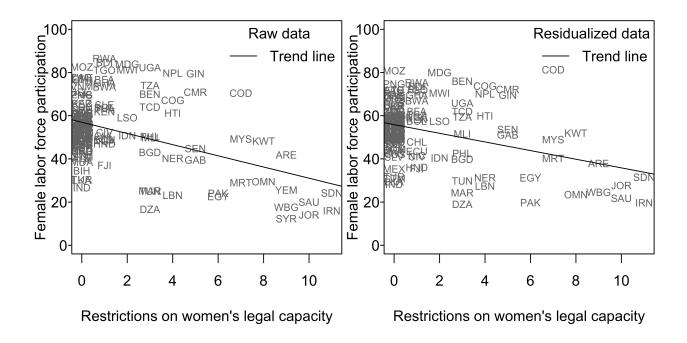
legal restrictions on women's capacity and also a very small share of firms owned at least in part by women. Among the countries on the far left side of both panels we see countries with few legal restrictions but with great variation in share of firms with female ownership, ranging from 4.5% in Azerbaijan to 66.2% in Paraguay.

How can we understand the great range of outcomes given a lenient legal environment? Consider the case of Albania, which has very low rates of female firm ownership despite having no restrictions on women's legal capacity. The communist government there established a liberal legal framework governing women's legal capacity, which persisted after the regime transition. But societal discrimination against women increased. As a result, women's labor force participation has declined every year, from a high of 54% in 1992 to just above 40% in 2015.¹³ Women's entrepreneurship is limited mostly to small and micro businesses, and many complain that they lack access to the same resources as men in spite of formal legal equality. One study emphasizes women's lack of training opportunities and access to networks (Ramadani 2015). In Albania, and other contexts, discriminatory social norms thwart the egalitarian intentions of the law.

In Figure 6 we show the correlation between our index for restrictions on legal capacity and women's labor force participation. Here too, there is little change in the correlational pattern, even when we control for GDP per capita, male labor force participation, and other types of laws.¹⁴ Restrictions on legal capacity tend to imply lower rates of women's labor force participation. In countries with more than five legal restrictions on women's capacity, women's average labor force participation rate is less than 30%.

It is notable, however, that the large number of countries clustered at the left side of both panels (implying that they have few or no restrictions on women's legal capacity) vary considerably in the extent to which women participate in the labor force (from some 27% to 83%). Turkey is an example of a country that has few restrictions on legal capacity but low levels of female labor force participation (30%). Indeed, the country stands out as one of few in the MENA region where women's family rights are relatively egalitarian; Tunisia and Morocco after 2004 are others. Modern Turkish civil law dates from 1926, when the nationalist revolution under Kemal Ataturk attempted to forge a secular republic and to minimize religious influences by shutting down religious courts, centralizing education, and bringing Muslim institutions such as mosques under the control of the government. These efforts extended to personal status law adopted in 1926, modeled largely on the Swiss Civil Code. In a precocious move for a Muslim-majority country of the era, the law banned polygamy, raised the minimum marriage age, and gave men and women equal rights to

Figure 6: Restrictions on legal capacity and women's labor force participation

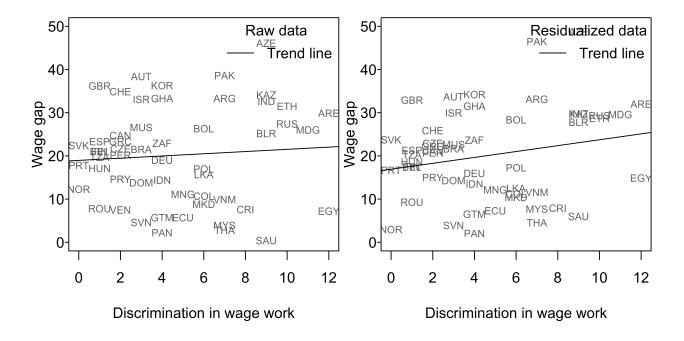


divorce. On the other hand, it kept intact many elements of the patriarchal family structure such as the husband's right to prevent his wife from working, his status as head of household, and the spousal obedience requirement, all of which were common in Europe at the time (Yildirim 2005).

Turkey did not reform these patriarchal elements of its family law until 2002, in spite of many attempts to do so in intervening decades. The 2002 Code was almost entirely egalitarian, though it curiously preserved Muslim principles relating to the determination of paternity in the event of divorce. As Yildirim (2005) argues, however, the efforts of Turkish secular elites to change society through family law were not entirely successful, and many traditional and religiously-inspired social norms persisted. In fact, traditional social norms may have grown more entrenched in reaction to state repression and prohibitions on Muslim headscarves, among other measures.

At the same time, other parts of Turkish law persist that contradict women's legal capacity, and may help to depress their labor force participation. One labor regulation, for

Figure 7: Discrimination in wage work and wage gap between women and men



example, gives women, but not men, severance payment if they stop working within a year of marriage. Though the welfare state not only offers maternity leave and the option to work part time for 60 days, but also requires that firms with more than 150 women employees offer onsite child care, many laws intended to support working women are poorly enforced, do not extend to the informal sector where most (particularly poorly educated) women work, and often deter employers from hiring women. Effectively, the state relies on women's unpaid care work for social reproduction (Dedeoglu 2012).

Finally, in Figure 7 we show the association between laws conducive to discrimination at work and the gender wage gap.¹⁵ This was the only legal indicator that was significantly associated with this outcome in our multivariate models presented in Table 1. Here we see an example of a relationship that actually appears more robust once we control for important confounders: in the left panel we see that legal discrimination at work is only associated with a very slight increase in the wage gap (higher numbers indicate that women earn less than men). The right panel shows a steeper trend line. More than for the other outcome variables,

this panel reveals great variation in the outcome data. There are examples of countries with a large number of discriminatory labor laws and a low wage gap, such as Thailand and Saudi Arabia. And there are examples of countries with few discriminatory labor laws but a fairly large wage gap – such as Great Britain and Austria. The greater variability in the data suggests that there are factors other than our main explanatory variables that drive outcomes (this is also reflected in the lower R^2 for the multivariate model for this variable than for the other variables in Table 1). However, these patterns seem somewhat less intuitive than the patterns we have described for our other variables, raising concerns about the validity and reliability of this particular measure.

Overall, our analysis of the relationship between gender-discriminatory laws and women's economic agency shows that different types of laws are correlated with different aspects of women's economic agency. Closer examination of trends in a few cases, such as in Albania and Turkey, reveals that the story is even more complicated. The Turkish experience suggest that restrictive laws in some areas (workplace) can conspire to thwart the freedoms that laws in other areas (capacity) give women. The Albania story suggests that egalitarian laws embedded in conservative cultural norms may have little impact. Formal legal provisions on their own do not make women free, but they are a necessary component of the social, economic, and cultural processes of women's liberation.

5 Conclusions

In recent years that have been many major reforms of legal systems aimed at improving women's economic agency, and the number of countries with seriously gender-discriminatory legislation is shrinking year by year. Advocates for these legal reforms hope that they will result in rapid social changes, and there is often an optimism about the wide-reaching effects that they will have. However, there are many reasons why laws may not result in major social changes and one should not expect all types of legal change to affect all types of outcomes.

In this paper we have drawn on the most comprehensive cross-country data available to create a global overview of different types of gender-discriminatory legislation and outcomes. In a departure from previous approaches, which have tended either to collapse all types of laws into a single index or focused on single pieces of legislation, we created three measures for different types laws that may affect women's economic agency. We also conceptualized women's economic agency as multi-dimensional, and operationalized it with five different indicators to capture some of this diversity.

There are three main conclusions to take away from the data presented in this paper. First, despite the great advances in women's rights, there are still many restrictions on women's economic activities, including both explicit restrictions on women's legal capacity, often set down in unequal family law, and a range of laws that contribute to the discrimination of women in wage work. There are also many countries that do not provide any form of publicly paid parental leave, making it challenging for women, particularly lower-income women, to combine wage work with raising children.

Second, though there are clear correlations between countries' legal frameworks and women's economic agency, our correlational plots reveal great variation in outcomes even in countries with similar, or no, legal restrictions. This heterogeneity in the relationship between laws and practices highlights the importance of studying laws and their implementation in national contexts to understand the conditions under which legal change translates into social change.

And finally, whereas discussions in more developed economies often focus on reducing discrimination in labor codes, and on controversies over the division of parental leave between mothers and fathers, we find that the strongest predictor of our various indicators of women's economic agency is basic restrictions on women's legal capacity embedded in family and personal status laws. Labor laws and parental leave also matter, but they are associated primarily with differences in the wages received by men and women who are already working, and mainly in the formal sector. These issues are therefore relevant mostly to countries with large formal sectors where rules and regulations – the most developed economies in the world.

In much of the Global South, discriminatory family and personal status laws endure. Often justified with reference to religion, identity, and culture, these laws uphold and legitimize social practices that discriminate against women and subordinate them to the will of their male family members. Restrictive laws reinforce the household and societal barriers to women's ability to gain resources, money, and jobs. By showing that reform of family laws has the potential to unleash massive economic potential, our analysis implies that existing restrictions impede human development. Their reform should be everyone's priority.

Notes

¹As explained more fully below, we understand *economic agency* as the ability to make independent economic choices. Following Sen's (1979) capability approach, we believe that agency depends on both the *disposition* to make independent choices and the *capacity* to do so due to access to resources via asset ownership or employment, as well as legal rights and some recognition and dignity in social status. Following Kabeer (1999) we understand *economic empowerment* to be the *change* in economic agency from worse to better.

²Google's Ngram suggests that economic agency has been regularly used since the 1870s, while economic empowerment entered around 1980 and has seen a rapid increase in usage since then.

³See unstats.un.org/edge/

⁴While many countries have wage gaps in accordance with our intuition on gender equality, some observations, such as Saudi Arabia, which has the lowest score, are surprising. To check the validity of the ILO data, we compared it to data on thirty-eight countries provided by the OECD. It is correlated at 0.68. Notably, neither measure correlates with expert perceptions of wage gaps from the World Economic Forum. Thus, we utilize the ILO measure but treat our results with caution.

⁵See, for example, narratives from the upper-class women interviewed by Tønnesen's team in Sudan. Even though the law gives men extensive patriarchal powers, many urban residents opted not to exercise them to prevent their wives from working outside of the home.

⁶In fieldwork in Latin American in the 1990s, Htun interviewed many older women who reported encountering these obstacles in the public sphere. Romy Medeiros da Fonseca, a lawyer in Rio de Janeiro, was asked regularly by bank managers for signed permission from her husband during transactions. She organized an elite coalition to reform the Brazilian civil code to grant married women full civil capacity. See (Htun 2003).

⁷The full dataset includes the territories of Puerto Rico and Hong Kong, which are dropped in this analysis so that our data includes only countries.

⁸The full list of questions included in the index can be found in Appendix 5.

⁹Countries that require that the employer pay for the leave, or that provide only for unpaid leave, are scored as zero.

¹⁰Although the three legal indicators are correlated they are not as strongly correlated as one might expect and multicollinearity does not seem to be a concern. For model 1, the variance inflation factors for legal capacity is 1.5, for discrimination in Wage Work it is 1.4, and for parental leave it is 1.2.

¹¹We use the same proxy for the size of the informal sector as described above and the "regulatory enforcement" aspect of the WJP Rule of Law measure. See Appendix 5 for further details.

¹²For completeness we also show the output from models run the subset of countries with a below-median legal enforcement (Table 7) and an above-median informal sector (Table 8). In Table 9 we also show robustness to the inclusion of an indicator of the level of democracy.

¹³ILOSTAT database, published March 2017.

¹⁴In Appendix 5, Table 9, we show there is a correlations between discrimination in wage work and female labor force participation. Here again we see a strong correlation in the raw data, but this correlation goes away once we include control variables.

¹⁵We do not show plots for the share of women in the informal sector, as the correlations are weak, and none of the patterns came out as statistically significant at conventional levels in our models. These patterns

can be provided upon request.

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Appendix

Legal indices

Restriction on Legal Capacity: This index counts the number of restrictions on women's legal competence. This indicator includes the following questions from the Women, Business, and the Law (WBL) datasets ("No" is coded as 1 unless otherwise specified):

- Can a married woman apply for a passport in the same way as a married man?
- Can a married woman travel outside the country in the same way as a married man?
- Can a married woman travel outside her home in the same way as a married man?
- Can a married woman get a job or pursue a trade or profession in the same way as a married man?
- Can a married woman sign a contract in the same way as a married man?
- Can a married woman register a business in the same way as a married man?
- Can a married woman open a bank account in the same way as a married man?
- Can a married woman choose where to live in the same way as a married man?
- Can a married woman confer citizenship on her children in the same way as a married man?
- Can a married woman confer citizenship to a non-national spouse in the same way as a man?
- Do married men and married women have equal ownership rights to property?
- Do sons and daughters have equal rights to inherit assets from their parents?¹⁶
- Do female and male surviving spouses have equal rights to inherit assets?¹⁷
- Does a woman's testimony carry the same evidentiary weight in court as a man's?
- Are married women required by law to obey their husbands? ("Yes" is coded as 1)

Discrimination in Wage Work This index counts the number of laws that potentially contribute to discrimination of women in wage work. This indicator is based on the following questions from the Women, Business, and the Law datasets ("No" is coded as 1):

Can non-pregnant and non-nursing women ...

- work the same night hours as men?
- work in jobs deemed hazardous in the same way as men?
- work in jobs deemed morally or socially inappropriate in the same way as men?
- work in jobs deemed arduous in the same way as men?
- work in mining in the same way as men?
- work in factories in the same way as men?
- work in construction in the same way as men?
- work in metal-working in the same way as men?
- engage in jobs requiring lifting weights above a threshold in the same way as men?
- Does the law mandate equal remuneration for work of equal value?
- Does the law mandate nondiscrimination based on gender in hiring?
- Is it prohibited for prospective employers to ask about family status?
- Is dismissal of pregnant workers prohibited?
- Are mothers guaranteed an equivalent position after maternity leave?

Governmentally Paid Parental Leave: This is a continuous variable coded up from the questions about parental leave in the Women, Business, and the Law datasets. The variable is the natural log of the number of days of governmentally paid maternal, parental or parental leave in each country. Cases where the leave was "partially paid" by the government or paid by "Employment and Government" were coded as governmentally paid.

Indicators of empowerment

Percent of Women (Men) with Bank Account Ownership: The percentage of women (men) respondents who have a banking account by country, provided by the Global Financial Inclusion (Global Findex) database supported by the World Bank. The Findex is collected via representative survey samples, which in 2014 included 142 countries. Respondents are coded as having an account if they report having a bank account, either of their own or shared with someone else, at a bank or another financial institution, or personally have used mobile money service in the past 12 months.

- Percentage of Firms with Female Participation in Ownership: Female participation in firm ownership is provided by the World Bank Enterprise Data series. The data are based on firm-level surveys conducted over the course of 2013-2017 by the World Bank. The indicator is the percentage of firms reporting a woman as full or partial owner of the firm. Data are available for 91 countries.
- Female (Male) Labor force participation: ILO estimates for Labor Force Participation from 2014. Female (Male) Labor Force / Female (Male) working age population. The labor force participation rate is a measure of the proportion of a country's working age population that engages actively in the labor market, either by working or by looking for work in both informal and formal markets. ILO countries were matched to WB countries by name. Using year 2014 across the two datasets, all except 1 country (South Sudan) in the WB Laws data were matched to ILO. The resulting merged dataset has N = 142 countries.
- Percentage of women (men) in the informal sector: This measure is a proxy of the size of the informal market in 2014. It is derived the number of contributing family workers divided by the total employed population as provided by the ILO. The ILO measure of the share of the informal market is only available for 42 countries. This proxy based on contributing family workers, for which there are 141 countries observed, is correlated with the informality measure at 0.44. This measure captures the share of women (men) working in the informal sector as the number of contributing female (male) family workers divided by total employed women (men).
- Wage Inequality: Provided by the ILO based on surveys conducted between 2009 and 2015 for 54 countries, the gender wage gap is the difference between average earnings of men and average earnings of women as a percentage of average earnings of men.

Control variables

- **GDP** per capita: These are 2014 values from the World Bank World Development Indicators (WDI). It is available for 136 of the countries in our data.
- Size of informal sector: This measure is a proxy of the size of the informal market in countries in 2014. It is derived the number of contributing family workers divided by the total employed population as provided by the ILO. The ILO measure of the share of the informal market is only available for 42 countries. This proxy based on

contributing family workers, for which there are 141 countries observed, is correlated with the informality measure at 0.44.

Rule of Law 2014: We used the WJP Rule of Law data from 2014, which covers 99 countries. Most of the countries missing in the data are located in Africa, but countries like Paraguay, Costa Rica, Iceland, and Saudi Arabia are also not in the WJP. The WJP consists of 9 factors: (1) constraints on government powers; (2) absence of corruption; (3) open government; (4) fundamental rights; (5) order and security; (6) regulatory enforcement; (7) civil justice; (8) criminal justice; (9) informal justice. These 9 factors in turn are based on a total of 47 indicators. In our models we use the "regulatory enforcement" indicator which measures "the extent to which regulations are fairly and effectively implemented" (WJP 2014, 7).

Level of democracy 2014: Here we use the Electoral democracy index (polyarchy) from the V-dem dataset version 5 (Coppedge et al. 2015).

Robustness checks

Table 2: Regression models of the percentage of women with a bank account

0		0		
	Full	Full	High	High
	dataset	dataset	formality	enforcement
Restrictions on Legal Capacity	-1.33	-0.78**	-1.60**	-0.54
	(1.32)	(0.27)	(0.39)	(0.48)
Discrimination in Wage Work	-4.13***	* -0.15	0.12	-0.97
	(0.84)	(0.24)	(0.31)	(0.69)
Log Days of Paid Parental Leave	1.99^{\dagger}	0.50^{\dagger}	0.43	-0.48
	(1.05)	(0.27)	(0.51)	(0.38)
Control variables		Yes	Yes	Yes
N countries	129	125	65	47
R^2	0.29	0.96	0.96	0.97
adj. R^2	0.27	0.96	0.96	0.96
Resid. sd	26.97	6.06	5.20	5.28

Note: Heteroscedasticity-consistent standard errors in parentheses. Control variables are GDP per capita in 2014 and the the percentage of men with a bank account. † significant at p < .10; $^*p < .05$; $^{**}p < .01$; $^{***}p < .001$

Table 3: Regression models of the percentage of firms with female participation in ownership

Full	Full	High	High
dataset	dataset	formality	enforcement
-2.36**	* -2.24**	* -1.23	-1.53^{\dagger}
(0.52)	(0.53)	(0.86)	(0.72)
-0.40	-0.57	0.16	0.23
(0.54)	(0.57)	(0.61)	(1.11)
0.01	0.09	-0.10	0.50
(0.53)	(0.59)	(1.09)	(0.80)
	Yes	Yes	Yes
83	81	27	19
0.21	0.20	0.15	0.44
0.18	0.16	-0.01	0.28
13.81	13.67	8.62	8.73
	dataset -2.36** (0.52) -0.40 (0.54) 0.01 (0.53) 83 0.21 0.18	$\begin{array}{c ccc} dataset & dataset \\ -2.36*** & -2.24** \\ (0.52) & (0.53) \\ -0.40 & -0.57 \\ (0.54) & (0.57) \\ 0.01 & 0.09 \\ (0.53) & (0.59) \\ & Yes \\ 83 & 81 \\ 0.21 & 0.20 \\ 0.18 & 0.16 \\ \end{array}$	$\begin{array}{c cccc} dataset & dataset & formality \\ \hline -2.36^{***} & -2.24^{***} & -1.23 \\ (0.52) & (0.53) & (0.86) \\ -0.40 & -0.57 & 0.16 \\ (0.54) & (0.57) & (0.61) \\ 0.01 & 0.09 & -0.10 \\ (0.53) & (0.59) & (1.09) \\ \hline & Yes & Yes \\ 83 & 81 & 27 \\ \hline 0.21 & 0.20 & 0.15 \\ 0.18 & 0.16 & -0.01 \\ \hline \end{array}$

Note: Heteroscedasticity-consistent standard errors in parentheses. † significant at p < .10; *p < .05; **p < .01; ***p < .001

Table 4: Regression models of female labor force participation rate

rable 1: Regression models of female labor force participation rate							
Full	Full	High	High				
dataset	dataset	formality	enforcement				
-3.20**	* -2.97**	·* -3.13**	-3.09***				
(0.56)	(0.53)	(0.55)	(0.49)				
-0.06	-0.31	0.38	-0.61				
(0.48)	(0.47)	(0.34)	(0.72)				
-1.88**	-0.88	0.28	-1.13				
(0.59)	(0.62)	(0.64)	(0.78)				
	Yes	Yes	Yes				
140	136	67	48				
0.28	0.38	0.59	0.68				
0.26	0.36	0.56	0.64				
13.84	12.60	7.56	7.66				
	Full dataset -3.20** (0.56) -0.06 (0.48) -1.88** (0.59) 140 0.28 0.26	Full dataset Full dataset -3.20*** -2.97** (0.56) (0.53) -0.06 -0.31 (0.47) -1.88** -0.88 (0.59) (0.62) Yes 140 136 0.28 0.38 0.26 0.36	Full dataset Full dataset High formality -3.20*** -2.97*** -3.13** (0.56) (0.53) (0.55) -0.06 -0.31 0.38 (0.48) (0.47) (0.34) -1.88** -0.88 0.28 (0.59) (0.62) (0.64) Yes Yes 140 136 67 0.28 0.38 0.59 0.26 0.36 0.56				

Note: Heteroscedasticity-consistent standard errors in parentheses. Control variables are GDP per capita in 2014 and the male labor force participation rate. † significant at p < .10; *p < .05; **p < .01; ***p < .01; ***p < .001

Table 5: Regression models of percentage of working women in the informal sector

	Full	Full	High	High
	dataset	dataset	formality	enforcement
Restrictions on Legal Capacity	-0.39	0.41	0.01	0.61
	(0.73)	(0.36)	(0.09)	(0.63)
Discrimination in Wage Work	1.24*	0.05	-0.07	-0.66
	(0.58)	(0.25)	(0.05)	(0.45)
Log Days of Paid Parental Leave	-1.95**	-0.47	-0.16^{\dagger}	-0.01
	(0.69)	(0.37)	(0.09)	(0.50)
Control variables		Yes	Yes	Yes
N countries	140	136	67	48
R^2	0.13	0.77	0.64	0.85
adj. R^2	0.11	0.76	0.61	0.83
Resid. sd	16.30	8.56	1.56	5.88

Note: Heteroscedasticity-consistent standard errors in parentheses. Control variables are GDP per capita in 2014 and the percentage of male workers in the informal sector. † significant at p < .10; *p < .05; **p < .01; ***p < .001

Table 6: Regression models of the country-level wage gap between women and men

	Full	Full	High	High
	dataset	dataset	formality	enforcement
Restrictions on Legal Capacity	-1.37	-1.78	-2.72^{**}	-3.18^{\dagger}
	(0.99)	(1.08)	(0.78)	(1.74)
Discrimination in Wage Work	0.58	1.05^{*}	1.12^{\dagger}	1.53^{\dagger}
	(0.47)	(0.49)	(0.55)	(0.79)
Log Days of Paid Parental Leave	-0.52	-0.87	-1.31^{**}	-2.16
	(0.67)	(0.75)	(0.46)	(1.34)
Controlling for GDPpc		Yes	Yes	Yes
N countries	53	52	32	24
R^2	0.06	0.15	0.28	0.19
adj. R^2	0.00	0.08	0.17	0.02
Resid. sd	11.27	10.80	9.57	9.43

Note: Heteroscedasticity-consistent standard errors in parentheses. † significant at p < .10; *p < .05; **p < .01; ***p < .001

Table 7: Regression models of all five outcome variables in countries with below median legal enforcement

emorcement					
	Bank	Firm	Labor	Informal	Wage
	account	ownership	force	sector	gap
Restrictions on Legal Agency	-1.46^{\dagger}	-1.62	-2.72	2.30^{\dagger}	0.66
	(0.79)	(1.45)	(1.86)	(1.18)	(2.38)
Discrimination in Wage Work	0.27	-0.53	-0.33	0.54	1.29
	(0.42)	(0.78)	(0.82)	(0.38)	(0.74)
Log Days of Paid Parental Leave	0.86^{\dagger}	1.33	-0.65	-0.55	-2.07^{*}
	(0.51)	(0.97)	(1.09)	(0.69)	(0.72)
Controlling for male rate	Yes		Yes	Yes	
Controlling for GDPpc	Yes	Yes	Yes	Yes	Yes
N countries	46	38	47	47	20
R^2	0.91	0.10	0.32	0.73	0.25
adj. R^2	0.90	-0.01	0.24	0.70	0.06

Note: Heteroscedasticity-consistent standard errors in parentheses. † significant at p < .10; *p < .05; **p < .01; ***p < .001

Table 8: Regression models of all five outcome variables in countries with an above median informal sector (low formality)

	Bank	Firm	Labor	Informal	Wage
	account	ownership	force	sector	gap
Restrictions on Legal Agency	-0.18	-2.68**	·*-3.03** [*]	0.66	-0.40
	(0.31)	(0.69)	(0.72)	(0.49)	(2.18)
Discrimination in Wage Work	-0.16	-0.93	-0.61	0.64	0.82
	(0.33)	(0.85)	(0.82)	(0.43)	(1.17)
Log Days of Paid Parental Leave	0.18	0.66	-0.48	-0.65	-0.26
	(0.38)	(0.90)	(0.95)	(0.64)	(1.33)
Controlling for male rate	Yes		Yes	Yes	
Controlling for GDPpc	Yes	Yes	Yes	Yes	Yes
N countries	60	54	69	69	20
R^2	0.92	0.24	0.45	0.56	0.17
adj. R^2	0.91	0.18	0.40	0.52	-0.05
			. L .		

Note: Heteroscedasticity-consistent standard errors in parentheses. † significant at p < .10; *p < .05; **p < .01; ***p < .001

Table 9: Regression models of all five outcome variables, controlling for level of democracy

	Bank	Firm	Labor	Informal	Wage
	account	ownership	force	sector	gap
Restrictions on Legal Agency	-0.67^*	-2.18**	**-2.95***	* 0.37	-1.86
	(0.27)	(0.58)	(0.56)	(0.39)	(1.34)
Discrimination in Wage Work	-0.03	-0.57	-0.47	0.07	1.14^{\dagger}
	(0.25)	(0.61)	(0.56)	(0.28)	(0.66)
Log Days of Paid Parental Leave	0.43	0.07	-0.90	-0.48	-0.80
	(0.28)	(0.63)	(0.62)	(0.38)	(0.76)
Controlling for male rate	Yes		Yes	Yes	
Controlling for GDPpc	Yes	Yes	Yes	Yes	Yes
Controlling for level of democracy	Yes	Yes	Yes	Yes	Yes
N countries	124	80	134	134	51
R^2	0.97	0.18	0.37	0.77	0.16
adj. R^2	0.96	0.12	0.34	0.76	0.06

Note: Heteroscedasticity-consistent standard errors in parentheses. † significant at p < .10; *p < .05; **p < .01; ***p < .001

Additional correlation plots

Figure 8: Discrimination in wage work and women having bank accounts

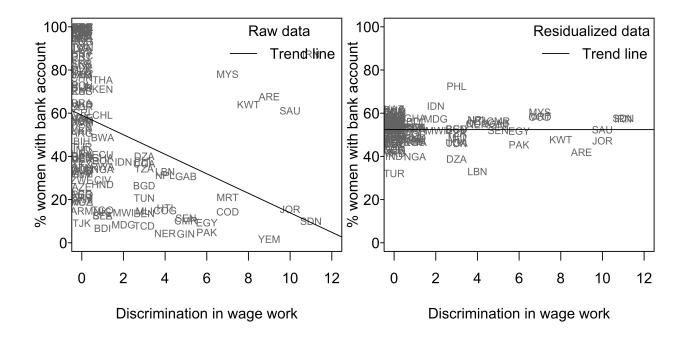


Figure 9: Discrimination in wage work and female labor force participation

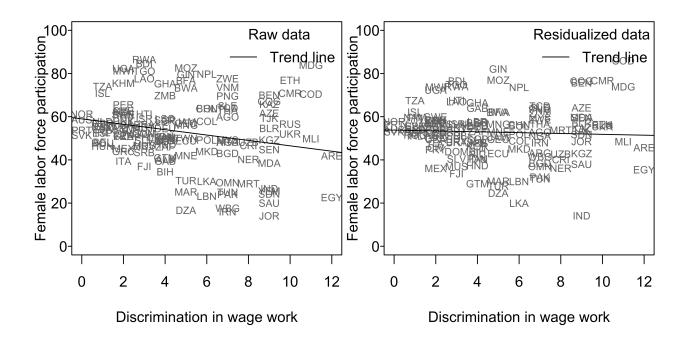
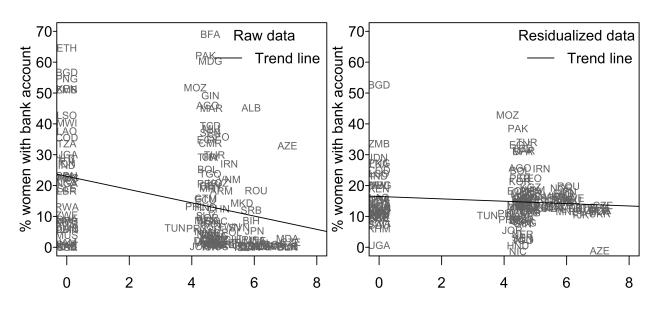


Figure 10: Publicly paid parental leave and women having bank accounts



Governmentally paid parental leave (Log day

Governmentally paid parental leave (Log day

Overview of data

Some names were not exactly the same across our World Bank and ILO data sets, and the following countries were matched together across these data sets:

- ILO: "Congo, Dem. Rep." == WB: "Congo, Democratic Republic of the"
- ILO: "Congo, Rep." == WB: "Congo"
- ILO: "Egypt, Arab Rep." == WB: "Egypt"
- ILO: "Hong Kong SAR, China" == WB: "Hong Kong, China"
- ILO: "Iran, Islamic Rep." == WB: "Iran, Islamic Republic of"
- ILO: "Korea, Rep." == WB: "Korea, Republic of"
- ILO: "Kyrgyz Republic" == WB: "Kyrgyzstan"
- ILO: "Lao PDR" == WB: "Lao People's Democratic Republic"
- ILO: "Macedonia, FYR" == WB: "Macedonia, the former Yugoslav Republic of"
- ILO: "Moldova" == WB: "Moldova, Republic of"
- ILO: "Puerto Rico (U.S.)" == WB: "Puerto Rico"
- ILO: "Slovak Republic" == WB: "Slovakia"
- ILO: "Tanzania" == WB: "Tanzania, United Republic of"
- ILO: "Venezuela, RB" == WB: "Venezuela, Bolivarian Republic of"
- ILO: "Vietnam" == WB: "Viet Nam"
- ILO: "Yemen, Rep." == WB: "Yemen"
- ILO: "West Bank and Gaza" == WB: "Occupied Palestinian Territory"

Table 10: Summary of variables used in analyses

	Mean	St. div.	Min.	Median	Max.	N
Restrictions on legal capacity	1.6	2.8	0.0	0.0	11.0	141
Discrimination in wage work	4.9	3.1	0.0	4.0	14.0	141
Log days of paid parental leave	3.7	2.4	0.0	4.6	7.2	141
Female labor force participation	52.9	16.1	12.3	52.6	86.5	140
Male labor force participation	73.5	8.5	45.0	73.2	91.4	140
% working women in informal sector	15.0	17.3	0.0	7.5	69.1	140
% working men in informal sector	6.6	8.0	0.0	3.3	37.1	140
% women with bank account	52.4	31.6	1.7	47.1	100.0	129
% men with bank account	57.9	29.4	7.5	58.8	100.0	129
% of firms with female ownership	32.9	15.2	4.5	32.1	70.4	83
Wage gap	20.2	11.3	0.4	21.0	46.1	53
GDP per capita in 2014	14272.4	19292.2	286.0	5448.1	97429.7	136
Rule of law (enforcement)	0.5	0.1	0.3	0.5	0.9	96

Table 11: Data availability for indicators of women's economic agency by country

Country	Country	Labor	Informal	Bank	Firm	Wage
name	code	force	sector	account	ownership	gap
Albania	ALB	✓	✓	√	√	_
Algeria	DZA	\checkmark	\checkmark	\checkmark		
Angola	AGO	\checkmark	\checkmark	\checkmark		
Argentina	ARG	\checkmark	\checkmark	\checkmark		\checkmark
Armenia	ARM	\checkmark	\checkmark	\checkmark	\checkmark	
Australia	AUS	\checkmark	\checkmark	\checkmark		
Austria	AUT	\checkmark	\checkmark	\checkmark		\checkmark
Azerbaijan	AZE	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Bangladesh	BGD	\checkmark	\checkmark	\checkmark	\checkmark	
Belarus	BLR	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Belgium	BEL	\checkmark	\checkmark	\checkmark		\checkmark
Benin	BEN	\checkmark	\checkmark	\checkmark	\checkmark	
Bolivia	BOL	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Bosnia and Herzegovina	BIH	\checkmark	\checkmark	\checkmark	\checkmark	
Botswana	BWA	\checkmark	\checkmark	\checkmark		
Brazil	BRA	\checkmark	\checkmark	\checkmark		\checkmark
Bulgaria	BGR	\checkmark	\checkmark	\checkmark	\checkmark	
Burkina Faso	BFA	\checkmark	\checkmark	\checkmark		
Burundi	BDI	\checkmark	\checkmark	\checkmark	\checkmark	
Cambodia	KHM	\checkmark	\checkmark	\checkmark	\checkmark	
Cameroon	CMR	\checkmark	\checkmark	\checkmark	\checkmark	
Canada	CAN	\checkmark	\checkmark	\checkmark		\checkmark
Chad	TCD	\checkmark	\checkmark	\checkmark		
Chile	CHL	\checkmark	\checkmark	\checkmark		
China	CHN	\checkmark	\checkmark	\checkmark		
Colombia	COL	\checkmark	\checkmark	\checkmark		\checkmark
Congo, Dem. Rep.	COD	\checkmark	\checkmark	\checkmark	\checkmark	
Congo, Rep.	COG	\checkmark	\checkmark	\checkmark		

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Country	Country	Labor	Informal	Bank	Firm	Wage
name	code	force	sector	account	ownership	gap
Costa Rica	CRI	✓	✓	√		✓
Cote d'Ivoire	CIV	\checkmark	\checkmark	\checkmark	\checkmark	
Croatia	HRV	\checkmark	\checkmark	\checkmark	\checkmark	
Czech Republic	CZE	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Denmark	DNK	\checkmark	\checkmark	\checkmark		
Dominican Republic	DOM	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Ecuador	ECU	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Egypt, Arab Rep.	EGY	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
El Salvador	SLV	\checkmark	\checkmark	\checkmark	\checkmark	
Estonia	EST	\checkmark	\checkmark	\checkmark	\checkmark	
Ethiopia	ETH	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Fiji	FJI	\checkmark	\checkmark			
Finland	FIN	\checkmark	\checkmark	\checkmark		\checkmark
France	FRA	\checkmark	\checkmark	\checkmark		
Gabon	GAB	\checkmark	\checkmark	\checkmark		
Georgia	GEO	\checkmark	\checkmark	\checkmark	\checkmark	
Germany	DEU	\checkmark	\checkmark	\checkmark		\checkmark
Ghana	GHA	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Greece	GRC	\checkmark	\checkmark	\checkmark		\checkmark
Guatemala	GTM	\checkmark	\checkmark	\checkmark		\checkmark
Guinea	GIN	\checkmark	\checkmark	\checkmark	\checkmark	
Haiti	HTI	\checkmark	\checkmark	\checkmark		
Honduras	HND	\checkmark	\checkmark	\checkmark	\checkmark	
Hungary	HUN	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Iceland	ISL	\checkmark	\checkmark			
India	IND	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Indonesia	IDN	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Iran, Islamic Rep.	IRN	\checkmark	\checkmark	\checkmark		
Ireland	IRL	\checkmark	\checkmark	\checkmark		
Israel	ISR	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Italy	ITA	\checkmark	\checkmark	\checkmark		
Jamaica	JAM	\checkmark	\checkmark	\checkmark		

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Country	Country	Labor	Informal	Bank	Firm	Wage
name	code	force	sector	account	ownership	gap
Japan	JPN	✓	✓	√		
Jordan	JOR	\checkmark	\checkmark	\checkmark	\checkmark	
Kazakhstan	KAZ	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Kenya	KEN	\checkmark	\checkmark	\checkmark	\checkmark	
Korea, Rep.	KOR	\checkmark	\checkmark	\checkmark		\checkmark
Kosovo	XKX			\checkmark	\checkmark	
Kuwait	KWT	\checkmark	\checkmark	\checkmark		
Kyrgyz Republic	KGZ	\checkmark	\checkmark	\checkmark	\checkmark	
Lao PDR	LAO	\checkmark	\checkmark		\checkmark	
Latvia	LVA	\checkmark	\checkmark	\checkmark	\checkmark	
Lebanon	LBN	\checkmark	\checkmark	\checkmark	\checkmark	
Lesotho	LSO	\checkmark	\checkmark		\checkmark	
Liberia	LBR	\checkmark	\checkmark		\checkmark	
Lithuania	LTU	\checkmark	\checkmark	\checkmark	\checkmark	
Macedonia, FYR	MKD	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Madagascar	MDG	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Malawi	MWI	\checkmark	\checkmark	\checkmark	\checkmark	
Malaysia	MYS	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Mali	MLI	\checkmark	\checkmark	\checkmark	\checkmark	
Mauritania	MRT	\checkmark	\checkmark	\checkmark	\checkmark	
Mauritius	MUS	\checkmark	\checkmark	\checkmark		\checkmark
Mexico	MEX	\checkmark	\checkmark	\checkmark		
Moldova	MDA	\checkmark	\checkmark	\checkmark	\checkmark	
Mongolia	MNG	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Montenegro	MNE	\checkmark	\checkmark	\checkmark	\checkmark	
Morocco	MAR	\checkmark	\checkmark		\checkmark	
Mozambique	MOZ	\checkmark	\checkmark			
Namibia	NAM	\checkmark	\checkmark	\checkmark	\checkmark	
Nepal	NPL	\checkmark	\checkmark	\checkmark	\checkmark	
Netherlands	NLD	\checkmark	\checkmark	\checkmark		
New Zealand	NZL	\checkmark	\checkmark	\checkmark		
Nicaragua	NIC	\checkmark	\checkmark	\checkmark	\checkmark	

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Country	Country	Labor	Informal	Bank	Firm	Wage
name	code	force	sector	account	ownership	gap
Niger	NER	✓	✓	√	√	
Nigeria	NGA	\checkmark	\checkmark	\checkmark	\checkmark	
Norway	NOR	\checkmark	\checkmark	\checkmark		\checkmark
Oman	OMN	\checkmark	\checkmark			
Pakistan	PAK	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Panama	PAN	\checkmark	\checkmark	\checkmark		\checkmark
Papua New Guinea	PNG	\checkmark	\checkmark		\checkmark	
Paraguay	PRY	\checkmark	\checkmark		\checkmark	\checkmark
Peru	PER	\checkmark	\checkmark	\checkmark		\checkmark
Philippines	PHL	\checkmark	\checkmark	\checkmark	\checkmark	
Poland	POL	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Portugal	PRT	\checkmark	\checkmark	\checkmark		\checkmark
Romania	ROU	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Russian Federation	RUS	\checkmark	\checkmark	\checkmark		\checkmark
Rwanda	RWA	\checkmark	\checkmark	\checkmark		
Saudi Arabia	SAU	\checkmark	\checkmark	\checkmark		\checkmark
Senegal	SEN	\checkmark	\checkmark	\checkmark	\checkmark	
Serbia	SRB	\checkmark	\checkmark	\checkmark	\checkmark	
Sierra Leone	SLE	\checkmark	\checkmark	\checkmark	\checkmark	
Singapore	SGP	\checkmark	\checkmark	\checkmark		
Slovak Republic	SVK	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Slovenia	SVN	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
South Africa	ZAF	\checkmark	\checkmark	\checkmark		\checkmark
Spain	ESP	\checkmark	\checkmark	\checkmark		\checkmark
Sri Lanka	LKA	\checkmark	\checkmark	\checkmark		\checkmark
Sudan	SDN	\checkmark	\checkmark	\checkmark	\checkmark	
Sweden	SWE	\checkmark	\checkmark	\checkmark	\checkmark	
Switzerland	CHE	\checkmark	\checkmark	\checkmark		\checkmark
Syrian Arab Republic	SYR	\checkmark	\checkmark			
Taiwan, China	TWN	\checkmark	\checkmark	\checkmark		
Tajikistan	TJK	\checkmark	\checkmark	\checkmark	\checkmark	
Tanzania	TZA	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark

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Country	Country	Labor	Informal	Bank	Firm	Wage
name	code	force	sector	account	ownership	gap
Thailand	THA	✓	√	√	√	\checkmark
Togo	TGO	\checkmark	\checkmark	\checkmark	\checkmark	
Tunisia	TUN	\checkmark	\checkmark	\checkmark	\checkmark	
Turkey	TUR	\checkmark	\checkmark	\checkmark	\checkmark	
Uganda	UGA	\checkmark	\checkmark	\checkmark	\checkmark	
Ukraine	UKR	\checkmark	\checkmark	\checkmark	\checkmark	
United Arab Emirates	ARE	\checkmark	\checkmark	\checkmark		\checkmark
United Kingdom	GBR	\checkmark	\checkmark	\checkmark		\checkmark
United States	USA	\checkmark	\checkmark	\checkmark		
Uruguay	URY	\checkmark	\checkmark	\checkmark		
Uzbekistan	UZB	\checkmark	\checkmark	\checkmark	\checkmark	
Venezuela, RB	VEN	\checkmark	\checkmark	\checkmark		\checkmark
Vietnam	VNM	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
West Bank and Gaza	WBG	\checkmark	\checkmark		\checkmark	
Yemen, Rep.	YEM	\checkmark	\checkmark	\checkmark	\checkmark	
Zambia	ZMB	\checkmark	\checkmark	\checkmark	\checkmark	
Zimbabwe	ZWE	✓	✓	✓	✓	