

Economic Development and the Regulation of Morally Contentious Activities[†]

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Countries prohibit many activities and transactions under the assumption that people consider them ethically unacceptable or “repugnant” (Roth 2007). Although some trades are virtually universally banned (e.g., organ sales or indentured servitude), countries differ in their stance toward morally controversial activities like abortion, same-sex marriage, prostitution, or gestational surrogacy, and often attitudes and laws change over time.

Our understanding of the origins of these differences is limited. Concerns for coercion, exploitation, fairness, or the violation of certain principles and institutions (e.g., life or marriage), which typically motivate the prohibition of repugnant activities, may be among those “sacred” values that, since at least Durkheim (1893), have been thought of as important to define common identities and tie societies together. However, prohibitions also imply costs for the parties who would otherwise engage in a given trade and for society more generally, causing supply shortages (e.g., of organs for transplants) or driving the activity underground, thus reducing safety and often fueling crime.

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We assembled detailed information on the legislation on three morally contentious activities in over 100 countries between 1960 and 2015: abortion, prostitution, and gestational surrogacy. Despite some differences, these activities concern women and their bodies and thus present commonalities in the underlying ethical and economic factors involved. As described in the online Appendix, the data come from multiple sources, including manually collected legislation. For each activity, we established whether in a given country-year legislation existed, whether the activity was allowed, and, if so, under what conditions.

Figure 1 shows that over time more countries legislated about these activities.¹ In the case of abortion, the legislation became in general more permissive, whereas for prostitution and surrogacy countries often introduced prohibitionist legislation. However, more recently many jurisdictions have allowed the most permissive approaches, i.e., abortion upon request, the operating of brothels and/or pimping, and commercial surrogacy. This is consistent with “bimodal” attitudes toward these morally charged activities, with most people either fully opposing or fully supporting them (Medoff, Dennis, and Bishin 1995).

As a first step toward an analysis of the causes of differences and changes in the regulation of taboo activities around the world, we explore the relationship between economic development and the regulation of abortion, prostitution, and surrogacy. On the one hand, economic development might change costs and benefits of legalizing these activities; on the other hand, it may also modify the moral priorities of a society. Although we make no claims of causality, we

¹ The legends in the figures indicate the legislative categories that we defined for each of the activities. The online Appendix provides details on the sources and specific legislation for each country.

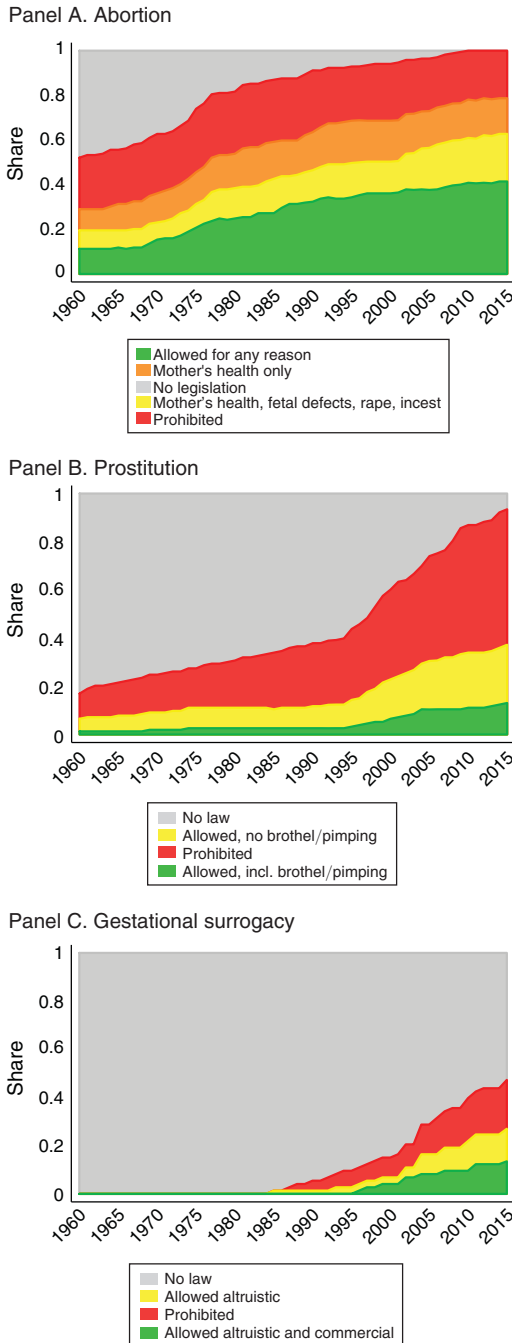


FIGURE 1. SHARE OF COUNTRIES ADOPTING DIFFERENT REGULATIONS OF ABORTION, PROSTITUTION, AND GESTATIONAL SURROGACY, 1960–2015

that can explain our results. We also propose directions for future research.

I. Regulations and Economic Development

For abortion and prostitution, we computed predicted probabilities from multinomial logit regressions of the legislation categories as a function of the natural logarithm of GDP per capita, in thousands of constant 2010 USD.² In addition to year dummies to control for the trends described above, we included in the model a set of characteristics that are likely to affect the regulatory choices discussed here: the predominant religion in a country at a given time, a country’s legal origin, the presence of a democratic regime, and measures of women’s economic and political rights. For the analysis of abortion regulation, the information on all variables of interest is from 1981 to 2010 for up to 151 countries, with 3,781 country-year observations. For prostitution, the sample size is of 3,207 observations, for the same time period and with up to 133 countries per year. Unfortunately, this analysis is difficult to perform for gestational surrogacy because, to date, only 35 countries legislated about this activity. We will present a more descriptive analysis in this case.

Our regressions do not control for country-specific unobserved heterogeneity. Including country fixed effects is problematic in a multinomial logit framework; moreover, most of the covariates that we include in our models are either time-invariant (e.g., legal origin), or change slowly or rarely (e.g., religion, democracy). Because there are strong reasons to believe that these variables are related to the legislation as well as potentially affect its relationship with development (see Elías et al. 2017), we chose to include them directly.

Figure 2 reports the predicted probabilities for each category of legislation on abortion and prostitution, as a function of GDP per capita, controlling for legal origin, democracy, religion and women’s political and economic rights as described above. We set all of these indicator variables (and the year dummies) at their overall mean. In the case of abortion, higher income per capita is strongly associated with the adoption

find several suggestive patterns, and propose a conceptual framework to identify mechanisms

²Information on all the variables is in the online Appendix.

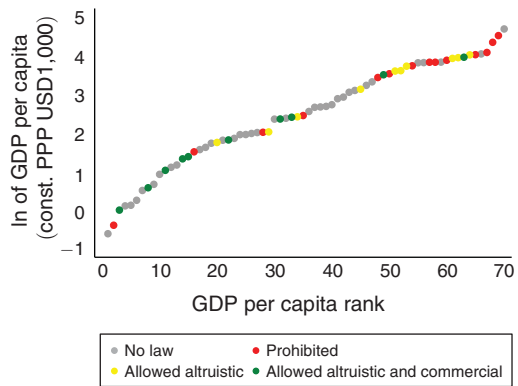
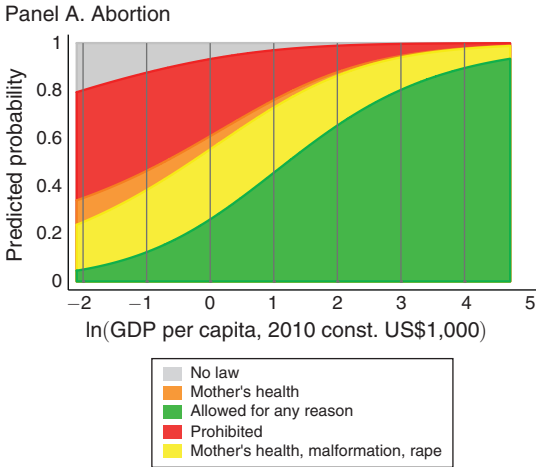


FIGURE 3. LEGISLATION AND GDP PER CAPITA IN 2015: GESTATIONAL SURROGACY

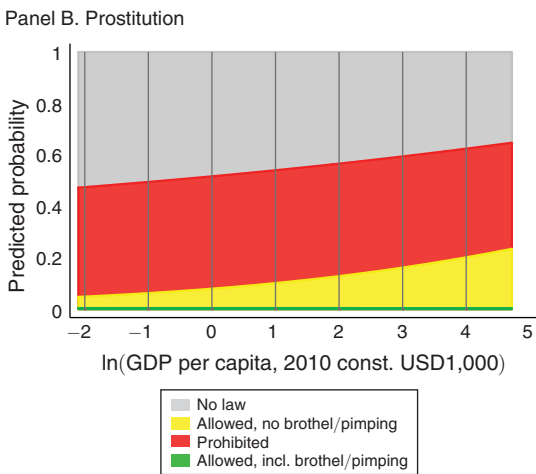


FIGURE 2. LEGISLATION AND GDP PER CAPITA: ABORTION AND PROSTITUTION

Note: The graphs report cumulative predicted probabilities from the multinomial logit regressions described in the text.

of formal legislation with increasingly permissive rules. Similarly, for prostitution there is an association between higher income per capita and the adoption of formal legislation legalizing the (non-organized) exchange of sex for money. However, the relationship is weaker than with abortion, and prohibition as well as the absence of formal regulation cut through all income levels with similar shares.

For surrogacy, Figure 3 shows countries ranked by their GDP per capita in 2015, and indicates their stance in that year. Formal legislation and legal altruistic surrogacy are found

mostly in higher income countries, but there is no relationship between income and allowing commercial surrogacy.

The differences across activities in the association between income and legislation may suggest a role for noneconomic factors. Indeed, our regression estimates indicate that democratic regimes and more economic and political rights for women are associated with more permissive abortion legislation and with the legalization of non-organized forms of prostitution.³ Countries with a majority of Catholics legislate less often on markets for sex, but are also more likely to allow non-organized forms of prostitution. Finally, there were no significant differences between countries with English or French legal origins, whereas countries with a Socialist legal origin are more permissive in their regulation of abortion.⁴

We also investigated how these factors affect the relationship between income and regulation, by adding to the regressions interactions between income per capita and an indicator for each of the other variables of interest. In the case of abortion, the prevailing religion affects the rate at which higher income associates with more liberal legislation. The correlation is weaker in countries with a majority of Muslim citizens, although we estimate more liberal regulation

³Details about these results are in Elías et al. (2017).

⁴Eastern European countries legalized abortion in the 1950s (Potts 1967), earlier than many Western democracies.

at lower levels of income; where Catholicism is prevalent, we estimate restrictive laws at low levels of income but a faster adoption rate of permissive rules as income increases.

Historical, cultural, and political factors have a stronger impact on the relationship between income and prostitution laws. The positive relationship between income and formal legislation, as well as the liberalization of non-organized forms of prostitution is absent or even reversed in the presence of a nondemocratic regime, of limited economic and political rights for women, and in countries where Islam is the prevalent faith.

II. An Interpretative Framework

Our main finding of a positive association between income and liberal legislation for abortion and prostitution is consistent with the idea that cost-benefit considerations affect attitudes toward repugnant transactions. We propose a conceptual framework to highlight plausible mechanisms for this association as well as the possible differences in the strength of the correlation for different activities.

Assume that a country decides to legalize a certain morally controversial transaction if $\Delta = L(E_L, R_L, X) - P(E_P, R_P, X) > 0$ for a majority of voters, where L and P denote individual utility under legalization and prohibition, respectively; E stands for “efficiency” (the “gains from trade” from the activity), R for “moral repugnance,” and X are other potentially relevant factors (including individual income). E , R , and X , in turn, are a function of technology and other factors related to economic development, which we proxy with per capita GDP (y). Differentiating Δ with respect to y gives

$$(1) \quad \frac{d\Delta}{dy} = \frac{\partial\Delta}{\partial E} \frac{\partial E}{\partial y} + \frac{\partial\Delta}{\partial R} \frac{\partial R}{\partial y} + \frac{\partial\Delta}{\partial X} \frac{\partial X}{\partial y}.$$

Thus, economic development could affect the regulation of morally disputed transactions through three channels: direct effects on efficiency and repugnance (first and second term); and an indirect effect through the change in the individuals’ relative valuation of the two policy options (legalization versus prohibition) due for example to income effects (third term). These terms have ambiguous signs. Economic development can increase the net benefit of the activity.

The impossibility of terminating a pregnancy, for example, is arguably a higher economic burden in higher-income countries, because of missed education and job opportunities (Becker 1960). Similarly, by helping women and couples to overcome biological constraints, gestational surrogacy can allow delaying having a child to pursue a career. New medical procedures or technologies that make abortion safer or in-vitro fertilization more successful, or that facilitate disease prevention and detection, can have similar effects on the benefits of legalized abortion, surrogacy, and prostitution. However, less morally controversial alternatives might become available (e.g., contraception) that reduce the benefits of some repugnant activity. As for the second term in (1), improved economic conditions may affect how an activity is performed, thus making it more or less repugnant. For instance, medical advances that allow early detection of fetal abnormalities might reduce the ethical aversion toward abortion; conversely, the availability of RU486 (the “abortion pill”) or emergency contraception methods (the “morning after pill”) may increase the repugnance toward abortion if the act is perceived as being “too easy” (Cook 1991). Also, economic development typically implies an increasing role of markets in society, possibly reducing the repugnance of trades in previously unacceptable areas. Income effects, finally, can increase the value of life and safety (Viscusi 2008), making societies more likely to legalize activities that could increase life expectancy, and those that would occur nonetheless, only in often less safe conditions. Individual rights are also likely to be normal goods, and thus economic development often comes with an expansion of these rights, in particular for marginalized groups including women (Duflo 2012). This could produce permissive regulations for activities viewed as an expression of women’s autonomy. However, a stronger aversion to coercion or exploitation might lead to restricting activities like prostitution or surrogacy if it is believed that women do not engage in these trades freely.

III. Directions for Future Research

The novel dataset that we assembled on the legislation on three morally contentious activities is a rich source of information to answer questions about the differences over time and across countries on attitudes toward and

regulation of these activities. In this paper we began the analysis of these data by documenting an association between higher GDP per capita and more permissive legislation, and found that this relationship varies across activities and depends on historical, cultural, and political factors.

Further research would establish the sources of these costs and benefits. For the activities that we considered, we suggested that changes in educational and labor market opportunities and improved health care that come with economic development, but also an increased respect for the role of women in society, are some of the mechanisms to explore.

The evidence that noneconomic factors such as religion or the political regime affect the relationship between income and regulation of taboo trades also calls for further analyses that might identify the nature and strength of certain moral beliefs. A promising direction is the study of individual preferences and attitudes toward repugnant activities, to assess their origins and distribution across various sociodemographic groups (Elías, Lacetera, and Macis 2016), and compare to the factors that drive country-level regulations. A related question is how individuals and societies “manage” the perception of ethically disputed transactions (Healy and Krawiec 2017).

In addition, other morally controversial activities also imply major trade-offs and, as such, are worthy of study. Examples include payments to blood and plasma donors, the sale and purchase of recreational drugs, assisted suicide, and recent medical and technological procedures such as the commercialization of human genetics (Caulfield 1998). Analyzing the regulation of these activities and of domains that are not morally disputed may help identify whether the links between income and regulation hold broadly or are specific to activities that raise ethical concerns and are, at least in part, gender-specific.

As a final point, academic work in this area warrants the combination of theoretical and empirical approaches from different disciplines, such as philosophy, bioethics, psychology, sociology, law, and economics. A starting point would be a comprehensive review of the factors that scholars in these disciplines identified as important in understanding the evolution of attitudes and regulation of morally controversial trades.

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