

## GENDER EQUALITY IN DEVELOPMENT

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The starkest manifestation of the lack of gender equality is the phenomenon of “missing women,” a term coined by Amartya Sen in a now classic article in the *New York Review of Books* (Sen, 1990), to describe the observation that the proportion of women is lower than what would be expected if women, in the developing world, were given equal medical care and food—if, in other words, women were not discriminated against. It is estimated that there are now between 60 and 100 million missing women in developing countries. Most of these missing women are not actively killed; they die from cumulative neglect. They are continually treated differently than their brothers, which increases their vulnerability. For each missing woman, there are many more women living under the pall of vulnerability.

Women in developing countries lag behind men in many domains. In access to education: in low and moderate income countries, for every 100 men in secondary schools and universities there are only 79 girls. In labor market opportunities: women are less likely to work, they earn less than men for similar work, and are more likely to be in poverty even when they work. In political representation: women constitute just 15.9 percent of the members of lower and upper houses of parliaments (United Nations, 2005) In legal rights: women in many countries still lack independent rights to own land, manage property, conduct business, or even travel without their husband's consent.

This essay addresses the interrelationships between economic development and gender empowerment, defined as improving the ability of women to access the constituents of development—in particular health, education, earning opportunities, rights, and political participation. There is a reciprocal and intimate relationship between women's empowerment and economic development. In one direction, development alone can play a major role in driving down inequality between men and women; in the other direction, continuing discrimination against women can, as Amartya Sen has forcefully argued, hinder development. Empowerment can, in other words, accelerate development.

Policy makers and social scientists have tended to focus on one or the other of these two relationships. Those focusing on the first have argued that gender equality improves when poverty declines. Policymakers should therefore focus on creating the conditions for economic growth and prosperity, while seeking, of course, to maintain a level playing field for both genders, but without adopting specific strategies targeted at improving the condition of women.

In contrast, many emphasize the second relationship, from empowerment to development. The Secretary General of the United Nations, Kofi Annan, for example, has argued that achieving gender equality is a “prerequisite” to achieving the other Millennium Development Goals (MDG), including eliminating poverty, reducing infant mortality, achieving universal education, and eliminating the gender gap in education by 2015 (United Nations, 2005). In its report, “Engendering Development,” the World Bank (2001) calls for policies to address gender imbalance in “rights, resources, and voice,” and recommends that institutional structures be overhauled to promote equality, and that specific measures, such as girl’s scholarships and quotas for women in parliament, be adopted. These measures are justified, according to the report, not only because they promote equity, but because they are necessary to accelerate development.

This essay reviews the evidence on both sides of the empowerment-development relationship. It first shows that poverty and lack of opportunity breed inequality between men and women, so that when economic development reduces poverty, the condition of women improves on two counts: first, when poverty is reduced, the condition of everyone, including women, improves, and second, gender inequality declines as poverty declines, so the condition of women improves more than that of men with development. Economic development, however, is not enough to bring about complete equality between men and women. Policy action is still necessary to achieve equality between genders. Such policy action would be unambiguously justified if empowerment of women also stimulates further development, starting a virtuous cycle. This essay argues that empowering women does indeed change society’s choices in important ways, although the usual depiction of women as always making the best decisions for long-term development is somewhat exaggerated. The conclusion here is a more balanced, somewhat more pessimistic picture of the potential for women’s empowerment and economic development to mutually reinforce each other than that offered by the more strident voices on either side of the debate.

***Can economic development cause women’s empowerment?***

Poverty and lack of opportunity breed inequality between men and women. Gender inequality is often greater among the poor, both within and across countries. For example, a study of 41 countries found that, in most countries, the ratio of boys to girls enrolled in secondary school is larger for the poorest 40 percent than for the richest 20 percent of the population (World Bank, 2001). Although gaps remain large, gender equality has, however, increased over time in low and middle-income countries in many important dimensions as those countries have developed. As access to primary school increases worldwide, girls are rapidly catching up to boys, although 57 percent of the 115 million children who remain out of primary school are still girls. In addition, the number of women enrolled in secondary school, for every 100 men, has risen from 40 in 1970 to 79 in 2005. The participation of women in the labor market has grown by 15 percent in East Asia and Latin America between 1971 and 1995, a rate faster than for men, and the gender gap in wages has narrowed as well. The life expectancy of women has increased by 15-20 years in developing countries over the same period (World Bank, 2001), while male life expectancy did not improve as much.

Is it the case that as countries develop, women's empowerment will follow naturally, and there is therefore no need for specific policies targeted at improving the condition of women? Is it sufficient to fight poverty and to create the conditions for economic growth in poor countries? Recent research suggests that economic growth, by reducing poverty and increasing opportunity, can indeed have an important positive impact on gender equality.

### ***Relaxing the grip of poverty through economic development***

The first way by which economic development reduces inequality is by relaxing the constraints poor households face, thus reducing the frequency at which they are placed in the position to make life or death choices.

Even in the countries where the preference for boys is strongest, it is hard to find evidence that girls receive less care than boys under normal circumstances. It is, of course, very difficult to observe whether, for example, girls are given less to eat than boys, since households under observation are likely to change their behavior. Also, when asked to keep diaries of how much each member consumes over a given period, households may misreport the portions given to boys and girls. Angus Deaton (1989, 1997) proposed a very ingenious way to use household consumption data to indirectly estimate whether girls are given less to eat than boys. He noted that when a child is born, the household, in effect, becomes poorer, since there is now one more person to feed—one who will remain unproductive for a long while. This means that the adult members of the household need to

cut down on their own consumption to make room for the new expenditures. Observing the extent to which the household consumption of “adult goods,” such as cigarettes, alcohol, or adult clothing drops when a child is born, provides us with an indirect estimate of the “cost” of the child. If families expend fewer resources on girls, for example, if girls are given less to eat than boys, then the adults will cut their consumption of adult goods by a smaller amount when they have an extra girl than when they have an extra boy. Yet, both in Cote d’Ivoire, where Deaton first conducted the research, and in India, there is no evidence that households reduce consumption of adult goods less for a girl than for a boy.

This is not to say that girls are not treated differently than boys. The differential treatment is observed when either children or parents face extreme circumstances. India, where Deaton found no difference in the expenditures on boys and girls has, one of the biggest discrepancies in gender-specific mortality rates. One reason for this is that girls are treated differently when ill: for example, a study found that in the poor neighborhoods of New Delhi, girls are more than twice as likely to die of diarrhea (Khanna et al., 2003). If poor households are less likely to spend money on a girl’s illness than on a boy’s illness, then improved access to health services, through either health insurance for the entire family or free medical care for the poor, would disproportionately help girls, even if parents do not change their behavior towards them.

Differential treatment of girls and boys also becomes acute when the household itself is facing a crisis. In India, the excessive mortality rate of girls, relative to boys, spikes during droughts. When they cannot afford to feed everyone, families disproportionately sacrifice the welfare of girls (Rose, 1999). Research conducted in rural Tanzania shows explicitly how the vulnerability of women increases when households face a crisis. When the harvest is bad, due to droughts or floods, and food is scarce, the murder of “witches” (almost always old women) is twice as likely to occur as in normal years (Miguel, 2004). If crises throw poor households into circumstances in which they are more likely to discriminate against vulnerable women, then increasing the ability of poor households to weather crises would disproportionately help women.

These two examples suggest that just reducing the grip of poverty on these households or helping them to deal with crises, could improve the welfare of women of all ages. Indeed, in India, Rose (1999) also showed that households that can buffer their consumption in a bad year—those, for example, with assets to sell—do not show the dramatic increase in relative mortality of girls during droughts. This first suggests that providing households with insurance against risk may reduce both child mortality and the mortality gap between boys and girls, and second, that households that are a

little richer are less likely to be thrown into desperation by bad rainfall. Reducing poverty, it seems, even without targeting women, will disproportionately help women. Pension remittances in South Africa offer suggestive evidence of how a non-targeted transfer can improve the plight of women. At the end of apartheid, in the early 1990s, old-age pension programs, previously limited to whites, were expanded to cover South Africans of all races. Since the introduction of the program, witch killings in rural Northern Province have dropped dramatically (Singer, 2000). It is, of course, difficult to definitively establish causality given the many other political and social changes that occurred in South Africa during the same period.

Economic development reduces poverty. It increases the ability—distinct from will—of households to withstand crises and the ability of governments to insure their poorest citizens against sickness and hunger. Thus, by reducing the vulnerability of poor households to risk, economic development, even without specifically targeting women, disproportionately helps them.

### ***Giving women hope by expanding their opportunities***

The fact that women have fewer opportunities in the labor market may contribute to their unequal treatment in the household. If women do not work outside the home, there may be a perception that they do not need to be as strong and healthy and that they do not need a formal education.

Interviews of parents in five states in north India conducted for the Public Report on Basic Education (PROBE) in India (The PROBE Team, 1999), found that as high as 10 percent of them believed that it was *not* important for girls to be educated—only up to 1 percent believed the same for boys. Fifty-seven percent wanted their sons to study “as far as possible,” while only 28 percent wanted the same for their daughters. Many parents believe that educating girls is not necessary, since girls are only expected to marry and take care of their households.

If part of the motivation for educating children is to enhance their employment opportunities, then improving the opportunities available to women in the labor market, as economic development does, would provide a strong catalyst for the treatment of women to change for the better. Two recent studies, one in China and one in India, show that increased opportunities for women in the labor market do indeed translate into better outcomes for women. The introduction of the Household Production Responsibility System as part of post-Mao agricultural reforms in rural China allowed farming households to grow cash crops instead of staple cereals. This led to a substantial boost in the production of tea in areas that were suitable for growing it. Given their smaller stature, particularly in terms of their height and the size of their hands, women have a comparative advantage over men in

the production of tea. In regions unsuitable for growing tea, the production of cash crops disproportionately produced by men rather than women increased following the reform. Qian (2005) shows that the number of missing women, which is particularly high in China, decreased in tea producing regions compared to other regions. For the same increase in total household income, an increase in female income of 7 US dollars per month (10 percent) translates into a 1 percentage point increase in the survival rate for girls. It is striking that this is true even in China, where it is generally believed that cultural factors and the “one-child” policy are very strong determinants of the preference for boys.

The entry of India into the world economy provides another example of economic development leading to improved gender equality, even reversing the fortunes of boys and girls. Munshi and Rosenzweig (2004) study the choice of language instruction in Mumbai over several decades. In universities, instruction is in English, but in primary and secondary schools, parents can choose either English or the local language, Marathi, as the medium of instruction for their child. When India liberalized its economy in the 1990s, and its software and service industries grew, the economic returns to education in English increased dramatically. The new sectors, such as outsourced telemarketing, also provided labor market opportunities for women who had traditionally been shut out of the labor market, leading to a rapid increase in English-based education for both boys and girls. Among the lower castes, the increase was much faster for girls than for boys: the proportion of lower-caste girls instructed in English almost caught up to that of upper-caste girls, but for the boys, the increase was not any faster compared to other castes. Among the lower castes, girls are now more likely to be educated in English than boys are. The reason is that members of low-caste households have traditionally relied on the caste network to find jobs, and choosing instruction in English for the child was construed as an attempt to break out from the foray of the caste. This spirit persists to some extent, locking boys into education in Marathi and then less lucrative jobs. This constraint does not apply to girls, who traditionally did not participate in the labor market. In other words, girls have no tradition of relying on the caste (old-boy) network and are free from the group expectations that bind the boys. Girls can be educated in English and therefore be in a better position to take advantage of marketplace opportunities as they arise. A quiet revolution is happening, even if the households are not fully aware of the consequences of their individual choices.

All these examples show that gender-blind policies that improve the economic welfare of households can improve gender equality, and that diversifying the economy and increasing women’s options in the labor market can cause households to adjust their behavior, moving them towards gender equality.

Is that how it works, then: as countries develop, empowerment of women will follow naturally? Is there a reason to design policies specifically targeted towards improving the condition of women? Or is it sufficient for improving women's condition to fight poverty and to create the conditions for economic growth in poor countries? In a word, will economic development be enough?

***Will economic development be enough?***

There is evidence that growth will not be enough to overcome discrimination in the home and in a number of domains. Sex ratios remain skewed in favor of boys. In China, despite rapid economic growth (and the reforms described above), the sex ratio at birth has worsened continuously since 1970, with an acceleration in the 1990s from about 53 percent of boys among all (reported) births to about 57 percent of boys among all (reported) births. Within Asia, the sex ratio at birth in South Korea and Taiwan, both rich countries, is similar to that in China and India. The gap between girls and boys is closing for primary and secondary schooling, but for tertiary education, the ratio of females to males has not improved overall, even though participation has risen for both boys and girls. In the labor market, even in developed countries, women who are equally qualified continue to earn less than men at all levels of qualification. Legal rights, particularly property rights, of women remain different from that of men in many countries. Compared to economic opportunities, education, and legal rights, the gender gap in political participation has narrowed the least between 1995 and 2005. As of January 2005, only 17 countries in the world had met the target (set by the UN Economic and Social Council in 1990) of having 30 percent or more women in national legislative seats; the proportion of seats held by women in single or lower houses of parliament was only 15.9 percent globally, up from 13.5 percent in 2000 and 9 percent in 1987 (United Nations, 2005).

The persistent difference in sex ratios at birth illustrates the fact that economic development, and the availability of new technologies, can have perverse effects on gender equality if it decreases the cost of discriminating against girls. High differences in reported sex ratios at birth between girls and boys are the result of unreported birth—infanticide—and increasingly, from sex-selective abortion. Sex-selective abortion shows how the wider availability of new technologies and the increased well-being of households resulting from economic development have led to an increase in a particularly egregious form of discrimination. This is not limited to China: the 2001 census in India revealed a reversal of the trend in the sex ratios, particularly in the most prosperous states in the north of India. Economic calculus plays a role here as well. An advertisement for an amniocentesis center in Mumbai reads, “Better pay Rs 500 now than Rs 50,000 later.” The Rs 50,000 refers to the dowry that

the parents would need to pay when a girl is married. With the cost of sex identification and abortion becoming so low with new technologies, many more parents may prefer to abort girls rather than to raise and marry them. Even if increased opportunities for women reduce the dowry, there is little chance that they will bring it to such a low enough level so as to make it worthwhile to let a girl live in the face of such a low cost for abortion.

The disparity in earnings at all levels of qualification illustrates the persisting bias against women. Ample research by psychologists shows that in developed countries, there is a widespread “implicit” bias, shared by both men and women, associating men with career and the sciences and women with family and liberal arts (see, for example, Greenwald et al., 2002). This bias has persisted despite the widespread participation of women in these academic disciplines and the labor markets in these countries. These biases affect women’s rewards for participating in the labor market or for getting a higher education both directly and indirectly, by persuading them that they are not cut out for particular jobs, or just not as good as men. Psychologists have shown this effect, known as “stereotype threat,” to be very powerful. When female and male students, recognized for being good at math, are given a difficult math test in college, women do worse than men. When they are given the same test after being told, “ You may have heard that girls are less good than boys at math, but this is not true for this particular test,” however, female students do just as well as males (Spencer et al., 1999)! The explanation for this phenomenon is that girls have accepted and internalized the bias that they are not as good at math, and they give up when the going gets tough. When they are told that this “fact” does not apply to that particular test, they know to continue to try hard. As long as these biases persist, gender equality will be hindered even if the technological conditions for an even playing field are met.

Likewise, while a number of factors continue to hinder the parliamentary representation of women—the type of electoral system present in a country, the role and discipline of the political parties, the lack of previous political experience of women—the widespread perception that women are not competent leaders is probably the strongest barrier to greater participation of women in policy making. It persists in developed countries as well: a series of experiments conducted by psychologists have shown that, holding performance constant, women leaders are evaluated more negatively than male leaders. These studies typically either provide written description of leadership situations, varying the sex of the leader, or use trained actors to lead, allowing the experimenters to control the degree of success the leader achieves (Swim et al., 1989). The surveys find the bias is most pronounced when the leadership role is typically considered a male role.

There is no comparable evidence in developing countries, but there are many reasons to think that these biases would be even stronger. Indeed, strong evidence from India shows that citizens tend to give lower performance marks to female leaders than to male leaders. Since 1993, one-third of the seats and presidencies of the rural village councils in India have been reserved for women. Topalova and Duflo (2004) analyze a data set with both objective and subjective information about the women's actions as policymakers. The objective data comes from technical audits of the number and quality of public goods available in the villages, and it shows that women provide more public goods and at better quality than men do. Moreover, on average, women take significantly fewer bribes than men—villagers are 1.5 percentage points less likely to pay bribes for obtaining service or to the police when the village leader is a woman. Even so, the subjective data, on villagers' satisfaction with their leaders, shows that villagers are less satisfied with the performance of female presidents in providing all services. Overall, villagers are 2 percentage points less satisfied with public goods when the president is a woman. This is true even for drinking water, for which the quantity and quality is objectively better in councils led by women. Surprisingly, the detractors include both men and women, and they blame the female presidents for the service levels of goods that the council does not even provide. It seems that there is a significant cultural barrier to recognizing women as competent policy makers.

Evidence such as this provides support for the idea of “reservations” or quotas for women in policymaking positions, since even when women do a better job, because perceptions are biased, their achievements are not recognized by the electorate. Therefore, in the absence of affirmative action of some sort, it would be very difficult for women to break into politics. Indeed, in most of the 17 countries where the target of 30 percent of women in parliament has been achieved, some kind of affirmative action measure was in place. If one wants to achieve balanced gender representation rapidly, it seems clear that affirmative action will be needed.

More generally, growth alone will probably not be enough to bring about equality between women and men in the foreseeable future: in the chance to be born, in the chance to survive childhood, in education beyond primary school, in the labor market, and in political participation, the gap will remain.

Yet, the gains from policies that target women come, to some extent, at the expense of men. This much is evident in politics. Any position that a woman gets through a quota is a position that a man does not get. The tradeoffs are not always as explicit, but can be very stark indeed. For example, specific measures to improve access of girls to school, such as scholarships for girls or latrines in

school, are an expensive way to get more girls into schools. Given that enrollment is already high, many scholarships go to girls who would have gone to school anyway, making the cost per additional girl induced to go to school very high. This means that within the very limited budget of most developing countries, the transfers to girls come, at the direct expenses of boys. The money spent on scholarships is not spent on other things that may help both boys and girls, such as hiring new teachers.

Thus, policies that explicitly favor women need to be justified, not just in terms of being necessary to bring about gender equality, but in terms of gender equality itself being desirable and worth the cost it implies. The second part of this essay explores the common justification that the tradeoff between the interests of various people seen in the short-run is transitory; in the long-run, there is no tradeoff between helping women more and helping everyone, because increasing the share of resources going to women will increase the amount of resources so much that everyone will be better off.

### **Can women's empowerment cause economic development?**

There are two rationales for supporting active policies to promote women. The first is equity as valuable in and of itself: women are currently worse-off than men, and this inequality between genders is repulsive in its own right. For example, in the United Nation's 2005 report on the Millenium Development Goals (MDG), Kofi Annan, the Secretary General of the United Nations, writes: "The full participation of women to all levels of decision-making is a basic human right." The second, a central argument in the discourse of policymakers, is that women play a fundamental role in development.. The gender gap in education, political participation, and employment opportunities should therefore be reduced not only because it is equitable to do so, but also because it will have beneficial consequences on many other society-wide outcomes. It should be done, in other words, to increase efficiency. Accordingly, in the same report, Kofi Annan argues that gender equality is in fact a "prerequisite" to achieving the other MDG.

Women's empowerment is therefore seen as a "win-win" proposition. Former World Bank President, James Wolfensohn, addressing the Fourth UN Conference on Women, said:

Education for girls has a catalytic effect on every dimension of development: lower child and maternal mortality rates; increased educational attainment by daughters and sons; higher productivity; and improved environmental management. Together, these can mean faster economic growth and, equally important, wider distribution of the fruits of growth.... More education for girls will also enable more and more women to attain leadership positions at all levels of society: from health clinics in the villages to parliaments in the capitals. This, in

turn, will change the way societies will deal with problems and raise the quality of global decision making.

The position that empowerment is desirable for efficiency shapes both the policy debate and the resultant economic policies the world over. Micro-credit schemes, for example, have been directed almost exclusively at women, because, it is argued, women invest the money in goods and services that improve the well-being of families, in goods that are conducive to development. Similarly, most conditional cash transfer benefit programs in developing countries, such as PROGRESA/Oportunidades in Mexico, direct the transfer to women, not men. Transfers conditioned on school enrollment are often higher for girls or even positive only for girls. Measures to enforce women's access to political positions through quotas have been instituted in 81 countries, including India, where a 1993 constitutional amendment required that one-third of rural village council seats and village presidencies be reserved for women.

The argument that women's empowerment is desirable on efficiency grounds deserves, however, another look. It should be noted, for starters, that its underlying proposition is that sending girls to school or improving their employment opportunities is good because the increase in the given development outcome is *higher* for a given increase in the education or earnings of women than from an equal increase in the education or earnings of men.

A substantial literature has studied these issues and found clear evidence of a correlation between mothers' education and earnings, and child welfare, particularly child health. Moreover, the correlation with mothers' education and earnings is almost always found to be stronger than the corresponding correlation with fathers' education and earnings. However, correlations are often misleading. In this instance, there are two fundamental problems with the interpretation of the results. First, a woman's education, earnings, or political participation may be correlated with unobserved dimensions of her ability, family, or community background. To the extent that these unobserved factors directly determine child health, the correlation does not indicate the causal effect of raising a woman's education, earnings, or political participation. It is important to recognize that the very fact that women are typically less likely to get an education, earn an income, and participate in political decisions is likely to make this bias stronger for women than for men. Likewise, children might do better in countries or regions where women's political participation is greater because these places are otherwise more favorable environments. Second, the comparison between the coefficients of husbands' and wives' education or earnings might be obscured by a correlation between wives' education or earnings and unobserved characteristics of husbands for two reasons: On the one hand, more educated or richer women may be able to marry men who care more about their children. On

the other hand, the observation that, after controlling for total resources, income in the hands of women is associated with more desirable outcomes than income in the hands of men, may reflect unobserved attributes of a man that directly influence child outcomes. For example, if he is progressive enough to allow his wife to seek employment, then this same progressive attitude may make him treat his children better.

To get around these problems, researchers have exploited specific circumstances where the distribution of power, education, or earnings of women and men changed for reasons that had nothing to do with their individual choices. These situations allow us to approximate what would happen if women's empowerment policies were put in place and applied to everyone, not only to very special families.

### ***Women as decision makers within the household***

Micro-credit schemes or welfare agencies that restrict credit or transfers to women on the grounds that the money will be put to use germane to development implicitly recognize that women are not entirely powerless. If women were powerless, then the money would be immediately appropriated by their spouses, and we would see no impact of distributing the money to women, rather than to men. Conversely, if households were harmonious entities where everyone had the same preferences and desires, then the nominal ownership of money would not matter within the household. It would all go to a common pool and channeled towards the best uses for the families.

In practice, there are good reasons to think that real families are somewhere between these two extremes—neither ruled by a dictator, nor without discord. Instead, all the household members have different ideas about how best to spend the household income, and each idea is given a different weight in the ultimate decision. In this context, the share of the household budget contributed by a member may well have an important impact on how much weight is given to the expenditures he/she favors. When women are decision makers within the household, how much they bring to the table can have an important impact on ultimate choices.

Empirically, a large literature has tested whether income in the hands of women of a household has a different impact on intra-household allocation than income in the hands of the men. The evidence suggests that, compared to income or assets in the hands of men, income or assets in the hands of women is associated with larger improvements in child health (Thomas, 1990), and larger expenditure shares of household nutrients, health, and housing (Thomas, 1992). These studies may,

in general, however, suffer from the problem that families where women earn a bigger share of the income are different from those where women do not. Duflo (2003), uses the rapid expansion of the Old Age Pension program in South Africa to address this problem. At the end of apartheid, the government committed itself to achieving parity of benefits and eligibility requirements between whites and blacks. This was achieved mostly by increasing the benefits received by blacks, which grew very rapidly between 1990 and 1993. In 1993, 80 percent of black women above age 60 and 77 percent of black men above age 65 received the pension. The maximum benefit of 370 rands per month—about 3 US dollars per day—was equal to one half of the minimum wage, and about twice the median per-capita income in rural areas. Due to traditional living arrangements, nearly one-third of black children under the age of 5 currently live with a pension recipient. Children who live with a pension recipient tend to come from relatively disadvantaged backgrounds, and so they tend to be smaller than other children their age. To estimate the effect of receiving a pension on the anthropometric status of children, Duflo exploits the fact that height reflects accumulated investments in child nutrition. The larger the proportion of life during which a child was well-nourished, the taller she will be, given her age. Expansion of the program in the early 1990s increased the likelihood of receiving a pension among qualified elderly people, and the benefits became substantially larger. Thus, to the extent that the pension resulted in improved nutrition, children born after the expansion were more likely to have spent a larger fraction of their lives well-nourished if they lived with a pension recipient.

Indeed, Duflo finds that girls who live with a grandmother who receives the pension are heavier than those who live with a grandmother who is not quite old enough to receive the pension. Moreover, when she looks at height, Duflo finds that older girls, who were born before the pension was in effect, are smaller when they live with a pension recipient (male or female) than when they live with a non-recipient. However, among young girls, who have lived their lives since the pension system was put in place, those who live with a grandmother who receives the pension are taller than those who live without one. This suggests that pensions received by women do translate into better nutrition for girls. While the weight of the older girls catches up immediately, deficit in early nutrition continues to be seen in height even after good nutrition has resumed, and this is why the older girls remain smaller. We estimate that for girls, living with a grandmother who receives the pension is enough to bridge half the gap between the size of children in the U.S. and in South Africa. In contrast, no such effect is found when the pension is received by a man and no corresponding effects were found for boys.

This suggests that the identity of the income recipient clearly matters for its use. Women and men have different preferences, and accordingly, use their rights over the permanent transfer to express those preferences. However, the fact that women have different preferences does not mean that those preferences are always benevolent, that they always favor t “good things.” Edmonds (2005) uses the same reform in South Africa to study the impact of the pension program on education. He compares school enrollment of adolescents (ages 13 to 17) in families where there is an elderly member who is eligible for the pension and in families where there is an ineligible elderly member. He finds that compared to those in families with ineligible elders, children are more likely to be in school when they live with an eligible man than with an eligible woman. Here again, we find evidence that the identity of the income holder matters. In this case, however, it is when men receive the pension that they make the decision favorable to well-being and development.

If more educated women command higher outside wages, and it is easier for them to get a job, then investing more in educating women, rather than in men, may indeed have a more positive impact on child health than when the investments are spread evenly. In addition, if women are the primary child-rearers, then more education may help them provide better care. Therefore, many believe that a special effort is needed to educate girls, and that educating girls would have tremendous spillover effects. Unfortunately, the evidence for this is not as strong as is commonly believed. Although an association between education of mothers and the outcomes of their children has been found over and over again, the evidence, in most cases, suffers from obvious biases: educated girls come from richer families and marry richer, more educated, more progressive husbands. As such, it is, in general, difficult to account for all of these factors, and few of the studies have tried to do so. Breierova and Duflo (2004) use the massive expansion of school construction in Indonesia in the 1970s to generate variation in the differences in schooling between husbands and wives based only on their region of birth and their dates of birth to get around this problem. When they correct for the fact that more-educated women differ from less-educated ones, they still find that, conditional on the household’s average education level, households have fewer children when the wife is more educated. However, they did not find a lower infant mortality. While there is no doubt that education has a positive effect on child mortality, it is not clear that girls’ education is much more critical than boys’ education. This is just one study, however; much more evidence is needed before we can answer this question.

A woman’s contribution to the budget is not the only factor that can influence her bargaining within the household. Her options outside the marriage are also important. If a woman has no options outside of the marriage, and both she and her husband know that divorce is not possible or that in the case of divorce she would be without any means of support, then the husband can impose

decisions on the household—he can threaten his wife with being left in a much worse position if she does not yield. This suggests that the institutional environment, such as the type of divorce laws that exist, and the ease of re-marrying or of finding other ways of supporting oneself in case of divorce would affect decision making within households, even when they do not end up divorcing. In Indonesia, each spouse retains ownership of the resources he/she brought into the marriage. Thomas, Frankenberg, and Contreras (2002) show that, even controlling for the household resources today, the resources each spouse brought into the marriage continue to affect the decision making within households. Specifically, children are in better health if their mother brought more resources into the marriage.

In many developing countries, women are very poorly protected in the case of divorce. Even when divorce laws exist, it is frowned upon in society, and remarrying is difficult. Surprisingly, there is little research on the effect of these institutions in developing countries. Work from the U.S. suggests that the institutions themselves matter for the outcomes within the family. Chiappori, Fortin, and Lacroix (2002) show that the rights of each spouse in case of divorce (which vary by state and have evolved differently in different states over time) affect the labor supply decisions among married couples. Angrist (2002) shows that the female children of American immigrants have a higher marriage rate and lower labor supply (a sign of higher bargaining power, in the U.S.) when there were more males among the recent immigrants of their age cohorts. The reason is that migrants tend to marry within their ethnic group. Immigration-induced sex ratios that are not balanced across sexes thus increase the likelihood of re-marriage of the sex that is in short supply in case of a divorce, and thus increases their bargaining power within the household.

All these studies show that power matters within the household and that when women command greater power, child health and nutrition improves. This suggests that policies seeking to increase women's welfare in case of divorce or to increase women's access to the labor market may impact outcomes within the household, in particular child health. But would these effects extend to temporary transfer programs that do not profoundly change the nature of the relative status of men and women? For example, do conditional cash transfers given to a mother for a period of a few years have greater positive effects than if they had been given to a father? The answer is not obvious *a priori*. One might expect the household to recognize that the transfers are temporary. In this case, the transfer should have no real effect on the recipient's bargaining power in the decision making, since the household knows that very soon, it will revert to the prior situation, and that the woman would be punished if she tried to extract too much while her power lasted. In other words, instead of trying

to extract as much as possible at any point in time, the household members should insure each other, and temporary transfers would not matter.

In practice, however, we observe that household members do not seem able to provide insurance to each other. In Côte d'Ivoire, women and men grow different crops and are therefore affected differentially by the same rainfall. Some years are good for men, and some years are good for women. One would expect that the consumption in the family would not be affected by the temporary, rain-induced fluctuations in the share of income contributed by each partner. Yet Duflo and Udry (2004) find that it is: in years when the production of women's crops is higher, the household spends a bigger share of its budget on food and also on private goods for women. In years when the production of male's crops is higher, the household spends a bigger share of the budget on alcohol and tobacco and male private goods.

There are two important lessons from these findings. First, even if they do not bring about radical changes in women's status or in the way women are perceived in society, policies targeted towards women can have immediate consequences. Increasing women's control over resources, even in the short run, will improve their say within the household, which will increase their welfare, but as research seems to have shown repeatedly, child nutrition and health as well. The second lesson is that families do not function very well, since they are not able to provide each other even basic necessities. This means that we cannot rely on the family to correct imbalances in society, for example, women's property rights. If the family is functioning well, the fact that women have weak property rights could be solved by transferring property from women to men within the household, with the men able to compensate the women for this. If a woman cannot rely on her husband to continue to compensate her over time, however, she will be reluctant to do so, and will prefer to retain ownership of the property, even if it is weak ownership. In turn, this may have consequences for the efficiency of households' production, may slow down investment and growth, and may contribute to keeping households in poverty.

### ***Women and property rights***

We observe many instances in which women retain property rights over a portion of the assets they bring into the household (we have already seen an example in Indonesia). In Africa, it is common for women and men to retain separate property rights over productive assets, particularly land. For example, in Burkina-Faso, women retain ownership of their individual plots within the marriage. Household members work on each other's plots, and inputs such as fertilizer may be purchased

collectively. The production is also pooled together for consumption by all household members. Of course, as we saw above, household members may have different opinions about how these pooled resources should be used, and various factors, including how much land they own, will influence the final consumption choices of the household. A well-functioning family, however, would first try to maximize the size of the pie before thinking about how to divide it. All inputs, including labor, seeds and fertilizer, should be allocated to all plots so as to maximize the overall productivity of the landholding. Udry (1996) showed that, in practice, this is far from being the case. Many more inputs are being used on the men's plots, so that, after controlling for the year, the characteristics of the plots, and the type of crops produced, men's plots are much more productive than women's plots, mostly because much more fertilizer is applied to these plots. Because the effectiveness of using fertilizer declines steeply with how much is used, it would make much more sense to use a little on both men's and women's plot. This, however, is not what households seem to be doing in most cases. Overall, household production might increase by 6 percent just by reallocating the same amount of fertilizer and labor. This is not negligible in an environment where people are so poor.

So why would they not do this? The answer is in part, because of the same myopia Duflo and Udry (2004) saw in Côte d'Ivoire. Households probably decide how to allocate resources as a function of how much food everyone produced in a day, without taking into account the fact that a household member may have helped out another to generate this production. Each household member prefers a bigger share of a smaller pie, and as a result, each works mostly on their own plot without regard to maximizing overall household production, and they do not sufficiently help other household members with time or inputs. Men, being richer and therefore less credit constrained, can afford fertilizer, which they use on their own plot, but not on the woman's plot. Given this imperfection in the negotiating within the household, a solution to increase household productivity would be for the woman to "rent" her land to her husband, who would then make the efficient production choice. One reason why this does not happen is because property rights are weak: if the husband works on the wife's land for too long, he will eventually be recognized as "owning" it, and will stop compensating her. Anticipating this, women are not ready to surrender control to their husbands even for compensation, and both members continue to produce in their own corners. This is an example where the fact that women have insecure property rights leads to sheer waste, and literally makes families poorer.

Weak property rights for women also lead to an inefficiently low level of investment in Ghana. Farmers in Ghana let their land lie fallow for a few years to replenish its nutrients. This is a form of investment in that farmers forgo production for a few seasons for higher post-fallow production.

The risk, of course, is that someone seeing the fallowing land may decide to start producing on it. Where property rights are secure, this does not happen. Property rights on agricultural land in Ghana, however, are anything but secure. In fact, a farmer only has, at best, usufructuary rights: the land belongs to both the village and the lineage, so that even if a piece of land is attributed to someone by the lineage, there is always the possibility that the village will reallocate it to someone else. The more powerful someone is within either the village or the lineage, the more likely it is that they can fight opposing claims on their land, and thus can choose to fallow without risk of being expropriated. Goldstein and Udry (2005) show that indeed, farmers who have a position of power within either the village or the lineage are more likely to fallow their land, and fallow it longer. As a result, they have more productive land. Women are less likely to hold position of power. As a result, they fallow less often, and this leads to a lower productivity for their land. Again, the lower position of women directly results in inefficient investment, and this is not corrected by transfer of property rights with the household, which might secure the claim of the household vis-à-vis the lineage or the village, but at the expense of weakening women's positions within their own households.

### ***Women as policy makers***

This case study from Ghana brings to light one of the consequences of the fact that women are less likely to hold political positions within the household. Are there other reasons why having women in politics would produce effects? We have seen that women and men have different preferences, and that the household does not efficiently bargain to choose the actions that maximize the household's utility, suggesting that women and men will have different policy preferences. First, women will prefer policies that better reflect their own priorities. Since they are particularly concerned about child health and nutrition, they should prefer policies that will help them achieve these objectives. Second, women should be in favor of policies that will increase their bargaining power within the household, that is, policies that improve their situation in cases of divorce, and policies that increase their productivity in everyday work or improve their chances to access the labor market. In practice, we do see that women and men have different preferences over policies. Chattopadhyay and Duflo (2004) collected data on the types of complaints brought by both men and women to the local village councils in two districts in the states of West Bengal and Rajasthan, India. Village councils administer local public goods in rural India. The types of formal complaints differ by gender. For public works, women in West Bengal complained most about drinking water and roads, and much less about education and irrigation. Men complained most about roads and irrigation and less about drinking water. In Rajasthan, over half the complaints made by women were about drinking water, while very few complained about education. Drinking water was also a big concern for men in Rajasthan, but it

was not as predominant an issue as for women. In contrast, men complained much more than women about roads and education. The pattern of complaints dovetails with gender responsibilities of men and women within the household and their employment opportunities. Women are responsible for collecting drinking water, and in West Bengal, they are the main beneficiaries of road works as they provide the bulk of labor on roads. In Rajasthan both men and women work on roads, but men use the roads more as they travel more frequently in search of work.

Even if women and men were to have different preferences, however, it is not sufficient to ensure that women policy makers would act any differently than men. In fact, in a perfectly democratic system, they would not, since both men and women would try to do what their constituents expect them to do, in order to be re-elected. Additionally, even if we thought women leaders did a better job of understanding women's needs, it would not necessarily follow that policies designed to guarantee greater representation by women would be an effective way to achieve this representation. For example, if women are politically weak, they may find it difficult to influence actual decisions.

To understand the effect of having women as policy makers, Chattopadhyay and Duflo (2004) study a unique experiment conducted in India after 1992. A constitutional amendment required states to both devolve power over expenditure for local public goods to rural village councils, and to reserve a third of all council seats and council presidencies for women. As a result, the political representation and participation of women has increased. A comparison of the type of public goods provided in reserved and unreserved village councils showed that the gender of the council president impacts investments. Women invest more in infrastructure that is directly relevant to the expressed development priorities of women. In West Bengal, where women complained more often than men about water and roads, reserved councils invested more in water and roads. In Rajasthan, where women complained more often about drinking water but less about roads, reserved councils invested more in water and less in roads. This result is in sharp contrast to the commonly held view that positions reserved for women usually go to the wife of the previous male leader who effectively continued to rule through his wife. The study also found that women in reserved seats were less experienced, had less ambition and lower prospects in politics, and were of lower socioeconomic status. There is no evidence, however, that these differences drove the results. It appears that only the gender of the local leader explains the different investment decisions in villages reserved for women. In other words, a world run by women would look decidedly different. Women leaders do seem to better represent the needs of women. This is true even in an environment (rural Rajasthan) where women traditionally have very little power, female literacy is very low, and where many believe

women leaders simply implement the wishes of their husbands. In fact, these women are changing the realities on the ground.

Interestingly, we observe once again that while giving power to women certainly changes the outcomes, it does not do so in a way that is unambiguously positive: while women invest more in drinking water, they invest less in school in West Bengal, and less in roads in Rajasthan. This is not surprising since they operate within a set budget, and whatever resources are used in one area need to come from another. While this reform was clearly good for women, it is less clear whether it is overall welfare improving or not: in order to answer this question, one would need to decide whether water was more important than schools or roads. This reminds us that there is no magic bullet, and that tradeoffs remain unavoidable.

## **Conclusion**

Women's empowerment and economic development are closely interrelated. While development itself will bring about women's empowerment, empowering women will bring about changes in the decision making, which will have direct impact on development. Contrary to what is claimed by some of the more optimistic policy makers, it is, however, not clear that a one-time impulsion of women's rights will spark a virtuous circle, with women's empowerment and development mutually reinforcing each other and women eventually being equal partners in richer societies.

On the one hand, economic development alone is insufficient to ensure significant progress in important dimensions of women's empowerment, in particular, significant progress in decision making ability in the face of pervasive stereotypes against women's ability. On the other hand, women's empowerment leads to improvement in some aspects of children's welfare (health and nutrition, in particular), but at the expense of some others (education).

This suggests that neither economic development nor women's empowerment is the magic bullet it is sometimes made out to be. In order to bring about equity between men and women, in my view a very desirable goal in and of itself, it will be necessary to continue to take policy actions that favor women at the expense of men, and it may be necessary to continue doing so for a very long time. While this may result in some collateral benefits, those benefits may or may not be sufficient to compensate the cost of the distortions associated with such redistribution. This measure of realism needs to temper the positions of policy makers on both sides of the development/empowerment debate.

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