

# **Gender Quotas and Female Leadership: A Review**

Background Paper for the World Development Report on Gender

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## **Abstract**

Despite significant advances in education and political participation, women remain underrepresented in leadership positions in politics and business across the globe. In many countries, policy-makers have responded by introducing gender quotas in politics and increasingly, many have expressed an interest in requiring gender quotas for corporate boards. This paper reviews the evidence on the equity and efficiency impacts of gender quotas for political positions and corporate board membership. Adoption of quotas by countries is likely correlated with attitudes about women within a country. However, the randomized allocation of political quotas in India and the unanticipated introduction of board quotas in Norway have allowed researchers to provide causal analysis and this review focuses on evidence from these two settings. The Indian evidence demonstrates that quotas increase female leadership and influences policy outcomes. In addition, rather than create a backlash against women, quotas can reduce gender discrimination in the long-term. The board quota evidence is more mixed. While female entry on boards is correlated with changing management practices, this change appears to adversely influence short-run profits. Whether this is partly driven by negative perceptions of female management choices remains an open question. Returning to the broader cross-country context, we find evidence in many different settings that political and corporate entities often act strategically to circumvent the intended impact of quotas. Consistent with this, we report suggestive evidence that the design of the quota and selection systems matter for increasing female leadership.

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## 1. Introduction

Over the last half-century, women have made significant advances in education, labor force participation, and political activism across the globe. Gender gaps still exist in low-income countries, but are much smaller than in previous decades. In middle- and high-income countries, many of these gaps have been reversed. Women have overtaken men in some areas of educational participation and performance: in lower-middle income countries, women are enrolling 11:10 in tertiary education compared to men, and the ratio is 14:10 in upper-middle-income countries.<sup>1</sup> The U.S Bureau of Labor Statistics reported in 2009 that women constituted 51% of all workers in high-paying management, professional, and related occupations.<sup>2</sup>

Turning to politics, while female suffrage did not exist anywhere in 1890, women had obtained the right to vote in 96% of the countries in the world by 1994.<sup>3</sup> The few remaining countries have also moved toward female suffrage in recent years. Women obtained the right to vote in Oman in 2003, in Kuwait in 2005, and in Qatar and the United Arab Emirates in 2006. These developments have been followed by an increase in the female share of registered voters across the globe. In Egypt, for instance, the share rose from 16% in 1975 to 37% by 2004.<sup>4</sup> Barbados, Chile, Ecuador, Malta, Puerto Rico, Sweden,<sup>5</sup> and the United States now show consistently higher female voter turnout than male.<sup>6</sup>

Yet, improvements in education attainment, professional development, and political participation have not translated into significant increases in female leadership in politics and business. While some women have risen to the pinnacle of political power – such as German Chancellor Angela Merkel and Dilma Rousseff, newly elected as president of Brazil, Latin America’s largest and most populous country – less than 19% of legislators in the world today are women.<sup>7</sup>

Similarly, in the corporate sphere, female representation falls with seniority. In Europe, despite a labor force that is 45% female,<sup>8</sup> women only average 11.9% membership when it comes to companies’ boards of directors. The percentage is 9.9% in the Americas, drops to 6.5% in the Asia-Pacific region, and down to 3.2% in the Middle East and North Africa.<sup>9</sup>

The limited female presence in leadership positions leads to a consideration of whether and how public policy should respond. To answer these questions, we must identify the constraints on female leadership and aim to accurately understand the benefits of enabling more women to

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<sup>1</sup> World Bank Gender Statistics Database, available at: <http://data.worldbank.org/data-catalog/gender-statistics>.

<sup>2</sup> U.S. Department of Labor, Bureau of Labor Statistics, Employment and Earnings, 2009 Annual Averages and the Monthly Labor Review, November 2009.

<sup>3</sup> Ramirez et al. (1997).

<sup>4</sup> El Sayed, Shawki, “Lobbying for Increased Participation of Women in Egypt,” *The Arab Quota Report: Selected Case Studies Quota Report Series*; this report was compiled from the findings and case studies presented at a workshop held on 5-6 December 2004, in Cairo Egypt.

<sup>5</sup> International Institute for Democracy and Electoral Assistance. “Voter Turnout by Gender,” available at: [http://www.idea.int/vt/survey/by\\_gender.cfm](http://www.idea.int/vt/survey/by_gender.cfm)

<sup>6</sup> Female voter turnout has exceeded male voter turnout in the United States in all presidential elections since 1980, as shown by data from the Center for American Women and Politics, available at: [http://www.cawp.rutgers.edu/fast\\_facts/voters/documents/genderdiff.pdf](http://www.cawp.rutgers.edu/fast_facts/voters/documents/genderdiff.pdf).

<sup>7</sup> <http://www.ipu.org/wmn-e/world.htm>.

<sup>8</sup> World Bank Gender Statistics Database, available at: <http://data.worldbank.org/data-catalog/gender-statistics>.

<sup>9</sup> Corporate Women Directors International (2010), 2010 CWDI Report: Accelerating Board Diversity Globally.

become leaders. One way to gain such understanding is to evaluate the impact of direct policy interventions such as gender quotas. This paper presents findings from certain countries' experience with quotas for female representation in government and on corporate boards, and discusses how existing evidence can inform our understanding of the equity and efficiency implications of these quotas.

A key concern in interpreting the evidence is that countries that adopt quotas may be doing so as a response to changing attitudes about women. Therefore, correlations between quota-induced increases in female leadership and policy outcomes may not reflect the causal impact of quotas. In reviewing the literature we find a variety of claims on the effects of quotas, but a more limited base of evidence that is able to address the empirical concerns of reverse causation. Here, we focus on studies that address this empirical challenge and present evidence on the causal impact of quotas. While this focus causes us to restrict attention to few countries, the richness of the studies allows us to disentangle channels of influence and identify generalizable lessons.

Much of the strongest evidence on the impact of political quotas comes from India, specifically because the design of the India reservation system allows for causal analysis. A constitutional amendment in 1993 made it mandatory for Indian states to decentralize a significant amount of policy influence to a three-tier system of local governance. The lowest tier is the village council or Gram Panchayat (GP), where villagers elect members of the village council and its leader. The key factor for analysis is that the 1993 amendment required that one-third of leader positions be reserved for women, and that reservation be rotated between elections. While different states chose different ways of implementing reservation, in most cases the process was, in effect, random. This implies that the difference in average outcomes between reserved and unreserved GPs reflects the causal impact of female leadership. This design of the legislation allows a natural experiment for measuring the causal impact of mandating a female leader.

In the case of corporate quotas, the nature of the 2003 legislation in Norway requiring 40% women on corporate boards allows it to be considered an exogenous policy shock. Because board characteristics were changed independent of other firm choices, issues of endogeneity are addressed, allowing for a clean evaluation of the impact of the quota policy. This process of implementation therefore created another natural experiment that has recently been empirically evaluated by several groups of researchers.

Our review yields three broad conclusions. First, quotas can and do increase female leadership in politics and the corporate sphere. This provides prima facie evidence that the primary constraint on female leadership is not a lack of interest in leadership positions by women. Second, female leadership influences policy outcomes. The evidence for this is clearer in the policy arena where it reflects gender differences in economic status and work responsibilities. To the extent that equitable representation in policy-making is desirable, quotas are a good policy tool to achieve it. In politics, there is no evidence that such representation has come at the cost of efficiency. The evidence from corporate board quotas does suggest some negative short-run impact on firm returns (however, the channels of influence and long-term effects are unclear). Third, gender quotas do not seem to create a sustained backlash among citizens – rather, evidence from political quotas suggests that voters use new information about how female leaders perform to update their beliefs about women. That said, we do find evidence that groups who are affected adversely – male incumbents, party leaders and firm owners – respond strategically in order to reduce the impact of gender quotas on leadership outcomes.

The paper is structured as follows: in Section 2 we present stylized facts about female leadership and discuss what they suggest about the existing barriers to female leadership. Section 3 outlines the current systems of quotas around the globe in politics and business. Section 4 discusses the pros and cons of quotas, exploring the equity and efficiency arguments surrounding quotas. In Section 5, we review the evidence on the impact of quotas, looking at representation, participation, policy and economic outcomes, and attitudes. Section 6 concludes by examining issues of quota design and identifying areas for future research.

## 2. Using Stylized Facts to Identify Potential Barriers

### 2.1 What Do We Know?

#### Attitudes

*Women want to be leaders.* A recent Catalyst survey finds little difference between senior-level businessmen and businesswomen in the U.S. on whether they aspire to occupy the most senior role in their organization.<sup>10</sup> The same study reports that there is no difference in these aspirations between women who have children and women who do not.<sup>11</sup>

Similarly, in the political arena, a survey of elected female village leaders in West Bengal, India shows that after two years in their position they feel as competent as their male counterparts in executing their duties.<sup>12</sup> A related study that uses the same sample of leaders presents evidence that after two terms female leaders show no difference in their desire to re-run for office when compared to incumbents of never-reserved village councils (who are 95% male).<sup>13</sup> An estimated 79% of both groups plan to re-run for office.<sup>14</sup>

*Changing attitudes about working women may not change attitudes about women as leaders.* Over the past decades, attitudes about women in the workplace have significantly changed (Cherlin and Walters 1991, Mason and Lu 1988, Scott 1990). A survey of college freshman in the U.S. showed a substantial change in the perception of whether “married women are best confined to the home and family,” from 41% agreement in 1967 down to 15% in 1984.<sup>15</sup> Despite this increasing approval of women in the workplace, a national Gallup poll from 2006 showed that Americans were almost twice as likely to prefer their boss to be a man rather than a woman.<sup>16</sup>

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<sup>10</sup> 55% of women and 57% of men responded that they aspired to the senior leadership position.

<sup>11</sup> Catalyst (2004, June), “Women and Men in U.S. Corporate Leadership: Same Workplace, Different Realities?” Available at: <http://www.catalyst.org/publication/145/women-and-men-in-us-corporate-leadership-same-workplace-different-realities>.

<sup>12</sup> Beaman et al. (2010).

<sup>13</sup> Beaman et al. (2009).

<sup>14</sup> Women of once-reserved councils, however, are slightly less likely to want to re-run and report their gender as creating significant on-the-job difficulties, suggesting that it may take time for gender-based discrimination toward new women leaders to diminish.

<sup>15</sup> Astin et al. (2002).

<sup>16</sup> Available at: <http://www.gallup.com/poll/24346/americans-prefer-male-boss-female-boss.aspx>.

## Causation

*Economic development does not beget female leadership.* There are many developed countries with low levels of female representation, such as the 11.3% female legislators in Japan or 17% in the United States.<sup>17</sup> In contrast, there are also countries with low levels of development and higher representation, even without legislated quotas, such as 39.2% women in the Parliament in Mozambique.<sup>18</sup> Similarly in corporate boards, 17% of board directors are women in Bulgaria and Latvia, compared to the median in Europe, which is below 9%.<sup>19</sup> A mere 3.9% of board directors are female in Italy.<sup>20</sup>

Using data from 126 countries, we find that GDP per capita does not predict the share of female legislators in a country's national assembly (see Table 1). On the other hand, candidate quotas and reserved seat quotas have a highly significant positive effect.

Rather than being dependent on the level of economic development, the implementation of quotas has appeared to be more closely related to political factors. The experience in various regions suggests that the transition to democracy, or the reform of the political system, has provided opportunities for putting women's rights on the political agenda and introducing potentially controversial measures such as quotas (more detail on this in Section 3.1). Dahlerup (2003) also observes that it has been easier to introduce quotas in a proportional representation system<sup>21</sup> rather than a majoritarian system<sup>22</sup>.

*Women's broadening career paths have not led to a proportional increase in female leaders.* Increased education and labor participation rates among women are only weakly correlated with the number of women in leadership positions in the corporate sector. Despite the increase to over 50% women currently working in high-paying management and professional positions in the U.S.,<sup>23</sup> the percent of female CEOs in the Fortune 500 companies only increased from 0.2% in 1995 to 3% in 2009.<sup>24</sup> While women constitute 15.2% of board directors in the U.S. and 12.2% in the UK, the percentage of women directors in the top companies (Fortune 500 and the FTSE 100) increased by less than 0.5% average per year over the last 10 to 15 years.<sup>25</sup> The trends are not much different in developing countries, where 7.2% of board directors in China, 5.3% in India, and 4.6% in Brazil are women.<sup>26</sup> Data suggests that in Malaysia the percentage of female board directors actually decreased from 9.9% in 2004 to 6.1% in 2008.<sup>27</sup>

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<sup>17</sup> Women in International Parliaments (December 31st, 2010), Available at: <http://www.ipu.org/wmn-e/classif.htm>, Inter-Parliamentary Union.

<sup>18</sup> Ibid.

<sup>19</sup> Corporate Women Directors International (2010).

<sup>20</sup> Corporate Women Directors International (2010).

<sup>21</sup> In a proportional representation system legislators are elected in multimember districts instead of single-member districts, and the number of seats that a party wins in an election is proportional to the amount of its support among voters. Proportional representation focuses on the inclusion of minority groups.

<sup>22</sup> In a majoritarian system, a numerical majority of an organized group holds the power to make decisions binding on all in the group. Majoritarian representation emphasizes governability, giving a majority of seats to the party with a plurality of votes, not necessarily in proportion.

<sup>23</sup> Bureau of Labor Statistics (2010).

<sup>24</sup> Catalyst 2010. "Women in U.S. Management". New York: Catalyst.

<sup>25</sup> Corporate Women Directors International (2010).

<sup>26</sup> Ibid.

Many countries have a very high percentage of companies with woman directors (92% in France, 87% in the U.S., and 79% in South Africa) compared to the percent of women directors overall in the country (14%, 15%, and 16%, respectively).<sup>28</sup> This data reflects a large number of companies with only one woman on the board, which may indicate tokenism rather than substantive leadership success of women.

*Women on average have less experience, but experience may not predict leadership performance.* Data suggests a steady attrition of women as one moves up the seniority ladder in firms. A study of Chicago Business School MBAs by Bertrand, Goldin and Katz (2010) shows that while men and women enter the labor force at similar rates and earn comparable salaries at entry level, nine years out of school women are 12% less likely to be working than men. Working women put in an average of 10% fewer hours per week than their male counterparts with a wage gap of 40% (40 log points) in annual earnings.

These results suggest gender differences in labor market experience. A large labor economics literature demonstrates significant returns to experience (e.g. Mincer 1974) with recent estimates suggesting that the returns are large.<sup>29</sup> If board members are better qualified directly because of their experience in their sector (such as if they have experience in senior management or CEO positions), then there is a smaller pool of similarly qualified women to choose from compared to men. Yet, evidence on the relationship between experience and performance in leadership positions is mixed, especially in politics. We discuss the evidence on this in Section 5.6.

*Expected spillovers may not exist.* There is also little evidence of spillovers of gender advancement from politics to the corporate sphere. Even with relatively high levels of female political representation in Norway (36.4% after the 2001 parliamentary elections<sup>30</sup>), the percentage of female corporate board directors remained below 7% until quotas were directly implemented in the business sector in 2003. Rather than originating from firms, however, the move toward corporate quotas has been external, largely based on a realization in the public sector that political quotas have been successful in increasing female leadership.

## **2.2 Barriers to Female Leadership**

What do these stylized facts suggest about the likely barriers to female leadership? We outline several supply- and demand-side explanations for the lack of female leadership. Later, we use the quota impact studies to shed some light on the empirical relevance of these explanations.

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<sup>27</sup> Ministry of Women, Family and Community Development (2008). *Report on Women Board Directors of Bolsa Malaysia* 50.

<sup>28</sup> Ibid.

<sup>29</sup> Using an instrumental variable strategy, Altonji and Shakotko (1987) finds that the first 10 years of labour market experience increase an employee's wage by 31%, and the first 30 years increase the wage by 48%. Dustmann and Meghir (2005) find similar results for skilled workers at the early stage of the career, but do not find significant returns for unskilled workers.

<sup>30</sup> International Parliamentary Union (2002). "Women in National Parliaments," Available at: <http://www.ipu.org/wmn-e/arc/classif231202.htm>

### Supply Side:

*Preferences and Costs of Entry:* If women bear greater childcare responsibility, whether by choice or necessity, then this will imply higher costs of entering and continuing in the labor force. A greater number of career interruptions and a lower number of working hours result in women having less experience. In as much as on-the-job experience is an important criterion for promotion in companies and selection of candidates by parties, fewer women will be selected for these positions.

*Aspirations:* Even if it is feasible for women to aspire to leadership positions, they will not know this—or be motivated to try—unless they see other women filling similar positions, or are otherwise informed that these positions are open to them. Costantini (1990) documents a significant aspirations gap between male and female activists in the U.S. from 1964-1984 through self-reported political ambitions. Women face an additional barrier to entry from the lack of female predecessors and role models demonstrating that it is a place where women can be successful.

*Aversion to Competition:* Women's preference for non-competitive environments may limit their drive to contest in an electoral race or competitive corporate advancement process. Niederle and Vesterlund (2007) shows that women prefer competitive engagements less than half as often as men of similar ability. Gneezy, Niederle, and Rustichini (2003) utilizes a series of lab experiments to determine that, among men and women who perform similarly in non-competitive environments, women are less successful than men in tournament-based environments. This effect is strongest when women compete against men, rather than only women. This may present an additional challenge to women competing in largely male-dominated winner-takes-all environments.

### Demand side:

*Taste Discrimination:* Personal tastes can cause a preference for male leaders. Such taste discrimination is often rooted in the social norm that women should not be leaders or that leadership is a masculine activity. Kelley and McAllister (1984) and Beaman et al. (2009) demonstrate taste discrimination against women among voters in elections, while Bagues-Volart (2010) presents evidence of a preference for male candidates in the hiring process in Spain.

*Statistical Discrimination:* Lack of information about the abilities of women leaders may cause members or voters to rely on beliefs about average performance. The small number of women leaders may cause these beliefs to be biased and result in inefficient statistical discrimination that undervalues the performance of women (see Selody 2011 for evidence from corporate boards). If voters and employers are relatively unfamiliar with the performance of women, then they may also choose a man because that is the type of leader they are most familiar with.

*Biased systems of selection:* Existing systems for selecting political representatives and directors of corporate boards may restrict the demand for female leaders. A large body of research has shown that proportional representation (PR) systems lead to greater representation of women versus other systems (see, for example, Siaroff 2000, Norris 2005, or Matland 2005). However, while PR systems are dominant in Europe, they are the national electoral system in less than half the countries in the rest of the world.

Similarly, the system of selection for corporate board members often makes use of networks of existing board members and senior management of a firm, who in most cases are predominantly men. A commonly cited reason for the low level of female leadership on boards is a lack of access of potential female candidates to informal networking opportunities, particularly to break into male-dominated networks (Janiak 2003, Fairfax 2006, Lord Davies 2011). Since they are relying on their existing networks, selection committees may be restricted on finding well-qualified women to elect to their boards.

### 3. Quotas: Descriptive evidence

#### 3.1 Political Quotas

More than half of the countries in the world have implemented some type of political quota, mostly in the last twenty years. They have led to a dramatic increase in female leaders across the globe. This section briefly describes the history and types of quotas. The rest of the paper focuses on analyzing the impact of quotas.

In response to an active civil society movement and rising awareness of women's rights, in 1990 the UN Economic and Social Council set a target of 30% female representation in decision-making bodies by 1995. The 1995 UN Beijing Conference on Women went a step further, by providing an impetus for quota policies by calling for governments to "ensure equal representation of women at all decision-making levels in national and international institutions."<sup>31</sup> Given this global environment, political quotas began to emerge as a viable and popular policy option in countries across the world.

#### Types and History of Political Quotas

Three main types of political quotas exist. First, **voluntary party quotas** have been adopted by political parties in a number of countries and involve a party committing itself to nominating a certain percentage of female candidates for electoral lists. Second, **candidate quotas** are required by the law of a country and stipulate that a certain number of candidate positions must be reserved for women. They sometimes include conditions on the position of women on the electoral list, for instance by requiring that every second entry on the list must be a woman. Finally, **reserved seats** are positions for which only female candidates can compete and are used as a more direct way of regulating the number of women in elected positions. Of the countries that currently have gender quotas, 61% have voluntary party quotas (often in combination with the other types), 38% have legislated candidate quotas, and 20% have reserved seats.

There is significant clustering of types of quota systems by geographic region. This is due to the variation in political systems and political histories across regions, and the imitation of quota systems within regions. The Nordic countries were the first to introduce quotas. Norway's Socialist Left Party took the lead in 1975 by introducing a 40% minimum target for representation of both sexes on electoral lists, and other parties in Norway, as well as a Denmark and Sweden, soon followed this example. Female representation has historically been high in these countries, but, contrary to popular wisdom, its initial increase has not been sparked by

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<sup>31</sup> Beijing Declaration and Platform for Action adopted by the Fourth World Conference on Women: Action for Equality, Development and Peace, 15 September 1995, Available at: <http://www1.umn.edu/humanrts/instree/e5dplw.htm>

quotas. In fact, quotas were introduced in these countries only once female representation in parliament had already reached approximately 25%. Quotas thus served as a tool for consolidating strong female representation.<sup>32</sup>

Many Western European countries, as well as Australia and Canada, have also implemented voluntary party quotas. The acceptance of quotas in Eastern Europe is much lower, but some countries, such as the Czech Republic and Hungary, have voluntary party quotas. The United States is a notable exception among Western countries, as it does not apply any quotas.<sup>33</sup>

In Latin America, quota schemes have been on the rise since the early 1990s, and have mainly taken the form of legislated candidate quotas. First adopted by Argentina in 1991, this type of quota has since been implemented in ten other Latin American countries. The quota adoption process was facilitated by the consolidation of democracy in the 1980s, which fostered the emergence of women's associations and other civil rights groups.<sup>34</sup>

Africa has witnessed the adoption of a wide variety of quota schemes over the past decades. South Africa for instance, where the African National Congress introduced quotas in the first post-apartheid democratic elections in 1994, is considered the forerunner for voluntary party quotas on the continent.<sup>35</sup> Uganda took the lead in introducing reserved seats in 1986<sup>36</sup>, and this experiment has since been replicated in other East African countries (Djibouti, Eritrea, Somalia, and Sudan). Legislated candidate quotas, as developed in Latin America, are also in use in a number of countries. One common feature is that quotas have often been introduced in post-conflict contexts, and under the influence of international donors or regional powers. Even dictatorships have resorted to quotas as a fast-track means of increasing women's representation and improving the government's image at home as well as abroad. In addition, the fact that women have started to play non-traditional roles in some countries, such as in post-genocide Rwanda, has been an impetus for introducing gender quotas in politics.<sup>37</sup>

Countries in South Asia have also increasingly used political quotas, and here, reserved seats have been the predominant tool, although voluntary and legislated quotas do exist in some countries. South Asia is the forerunner in the implementation of quotas at the local government level, as evidenced by the recent history of Bangladesh, India and Pakistan.<sup>38</sup>

In the Middle East, where cultural aspects constrain the participation of women in public life, quotas have found little support. Notable exceptions are Egypt and Jordan, where a fraction of

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<sup>32</sup> Ballington, J. & Binda, F., Eds. (2005). "The Implementation of Quotas: European Experiences," *International Institute for Democracy and Electoral Assistance*.

<sup>33</sup> Ibid.

<sup>34</sup> Ballington, J., Ed. (2003). The Implementation of Quotas: Latin American Experiences. *International Institute for Democracy and Electoral Assistance*.

<sup>35</sup> Myakayaka-Manzini, M. (2004). Political Party Quotas in South Africa. *International Institute for Democracy and Electoral Assistance: The Implementation of Quotas: African Experiences*.

<sup>36</sup> Tamale (2003).

<sup>37</sup> Ballington, J. (2004). The Implementation of Quotas: African Experiences. *International Institute for Democracy and Electoral Assistance*.

<sup>38</sup> The Implementation of Quotas: Asian Experiences. *International Institute for Democracy and Electoral Assistance*, 2002.

seats in the lower house of parliament is reserved for women, and Israel, where parties use voluntary quotas.<sup>39</sup>

Gender quotas have been implemented broadly, from the national down to the local level and in the upper and lower chambers of various parliaments. Candidate quotas or reserved seats can be either regulated by the electoral law or inscribed in the constitution, the latter usually being more difficult to modify.<sup>40</sup> See Table 2 for the quota types by country, including the target level and the current percentage of female legislators at the national level for legislated quotas.

### 3.2 Corporate Board Quotas

Gender quotas have only recently arrived in the business world. The most widely known example of corporate board quotas is in Norway, where a 40% gender quota for public limited,<sup>41</sup> state-owned and inter-municipality companies was introduced in December 2003. The quota gave companies a grace period until 2008 to reach the target. Female representation had increased only gradually before 2003, but then jumped from 15.9% in 2004, to 37.0% in 2007, and finally reached the 40% target in 2008.<sup>42</sup> The effort of the Norwegian Confederation of Enterprises to train women and link potential female board members to companies played an important role in this process.<sup>43</sup>

#### Types and Use of Corporate Quotas

The Norwegian **legislated gender quota** has become an example for other countries that strive to increase female representation on corporate boards. Legislated board quotas have since been introduced in Spain (2007), and France, Iceland, and the Netherlands (2010). However, compliance with the targets remains low. France aims to follow a tight schedule with two deadlines (20% target to be reached in 2013 and 40% target to be reached in 2016), and plans to nullify all board appointments in violation of the quota. Meanwhile, the Netherlands has not set a target date for compliance and simply requires noncompliance to be explained in a company's annual report. Spain has set 2015 as the target date for compliance. Quotas for public limited companies are also being discussed in Belgium, Canada and Italy, where laws are pending at different stages of the ratification process.

There has been use of **voluntary gender quotas** in the corporate sector. Calls for such commitment have been made repeatedly<sup>44</sup> but few companies have responded. The first DAX-

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<sup>39</sup> International IDEA Reports (2007). *The Arab Quota Report: Selected Case Studies Quota Report Series*. International Institute for Democracy and Electoral Assistance.

<sup>40</sup> To ensure that parties and electoral authorities meet quota targets, sanctions for non-compliance, which range from monetary sanctions to the nullification of appointments in violation of the quota have often been implemented.

<sup>41</sup> A public limited company is a company in which none of the members are personally liable for the company's debts. A company must be registered as a public limited company to be listed on the Oslo Stock Exchange.

<sup>42</sup> Hoel, M. (2008). The quota story: five years of change in Norway. *Women on Corporate Boards of Directors: International Research and Practice*, Eds. S. Vinnicombe, V. Singh, R. Burke, D. Bilimoria, & M. Huse : Edward Elgar Publishing Limited.

<sup>43</sup> Villiers, C. (2010). Achieving Gender Balance in the Boardroom: Is it Time For Legislative Action in the UK? *Legal Studies*, 30 : 533–557.

<sup>44</sup> See, for instance, the *Financial Times* letter to the editor, "How to build diversity on boards," (18 May, 2009) or the report *Women on Boards* (February 2011) commissioned by the government of the United Kingdom, calling for 25% female representation on FTSE 100 corporate boards.

listed company to make a voluntary commitment was Daimler in 2006. The company pledged to fill 20% of all management positions with female candidates by 2020.<sup>45</sup> Deutsche Telekom announced in March 2010 that it would fill 30% of its management positions with women by the end of 2015.<sup>46</sup> Eon followed suit with an announced intent to increase the share of women in management positions, but did not set clear targets or deadlines.<sup>47</sup>

Some countries have quotas for state-owned enterprises, including Israel, South Africa, Denmark, Finland, Iceland, Ireland and Switzerland. Finally, the local governments of Quebec, Berlin and Nuremberg have introduced quotas for provincial and municipal companies. Female board representation has increased in all three locations, but has not yet reached the target levels. Our focus on corporate board quotas arises from the lack of research on the impact of quotas on provincial and municipal companies. Table 3 lists the countries with corporate quotas by type and provides information on the quota target levels and dates, in addition to a preliminary assessment of their impact on representation.

## 4. The Pros and Cons of Quotas

Before turning to the evidence on the impact of quotas, we outline how quotas may be evaluated from an equity and efficiency perspective.

### 4.1 Equity

#### Pro-Quota

*Improves descriptive representation:*<sup>48</sup> Quotas aim to directly increase female representation in leadership positions. They can bypass discrimination by directly mandating that certain positions be reserved for women. Similarly, when the structure of the labor market inhibits a woman's advancement (for instance, by penalizing career interruptions) a quota can enable more equitable representation of women in leadership positions.

*Improves substantive representation:*<sup>49</sup> A growing body of evidence has demonstrated that men and women differ in policy preferences. For instance, Miller (2008) shows that an increase in female suffrage in the U.S. led directly to an increase in healthcare spending. Besley and Coate (1997) uses a theoretical model to demonstrate how implemented policies often reflect policy-maker preferences, while Pande (2003) presents causal evidence of mandated political representation of various caste groups resulting in increased transfers to those groups in India. Along these lines, a lack of female leadership translates directly into an underrepresentation of women's interests in policy decisions. Increasing the proportion of female leaders through quotas can improve representation of women's policy interests.

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<sup>45</sup> <http://www.handelsblatt.com/unternehmen/strategie/telekom-steht-allein-frauenquote-deutsche-unternehmen-winken-ab;2546763;2>

<sup>46</sup> <http://www.dw-world.de/dw/article/0,,5357141,00.html>

<sup>47</sup> <http://www.spiegel.de/wirtschaft/soziales/0,1518,702529,00.html>

<sup>48</sup> Based on Pitkin (1967), descriptive representation is defined as the extent to which a representative resembles those being represented, evaluated by descriptive characteristics that are politically relevant, such as geographical area of birth, occupation, ethnicity, or gender.

<sup>49</sup> Also based on Pitkin (1967), substantive representation is defined as representatives acting in the interest of the represented, in a manner responsive to them.

## Anti-Quota

*Crowd-out:* Gender quotas may crowd out other marginalized ethnic or socioeconomic groups. By reserving certain positions for women, there will be fewer positions open for candidates from other groups that are also underrepresented. Crowd-out may occur, further limiting their voice in both descriptive representation and in areas of substantial representation. Men may also be negatively affected. (On this, see Section 5.5.)

## **4.2 Efficiency**

### Pro-Quota

If, despite the presence of talented women, discrimination or other structural features of labor markets exclude them from leadership positions, then there is an efficiency case for using quotas to improve the allocation of talent in the labor market.

*Reduces taste discrimination:* Quotas may increase efficiency through overcoming taste-discrimination in the short term and changing attitudes and social norms in the long term (on this, see Section 5.4).

*Increases information:* Quotas may increase efficiency by correcting beliefs about female labor benefits and reducing inaccurate statistical discrimination. This, in turn, will increase the average quality of representation.

*Positive Externalities:* Quotas may correct market failures in the existing system or have a positive effective on potential women leaders themselves resulting in a more efficient selection of leaders.

- *Role Model Effect:* Mandated female leaders may serve as role models for other aspiring women. Role models can show the returns to a particular type of person achieving a certain position, and so provide information about the value of current decisions for those making career choices, resulting in efficiency gains for the market (Chung 2000). For example, only a female board director can effectively demonstrate the payoff of being a female director to other aspiring businesswomen and acquire expertise on how to effectively maneuver as a female director in a traditionally male-dominated environment.
- *Improves aspirations:* Quota-induced female leadership may increase entry into politics by women, and success in that realm, by improving aspirations and overcoming self-imposed stereotypes. Evidence in support of this channel comes from studies that show how self-imposed stereotypes may adversely influence the performance of women who believe they are expected to do worse than males. Spencer et al. (1999) uses a combination of psychology experiments to show that women perform worse than men on math tests when they are told that the test is particularly difficult for women, but perform as well as men on tests that are presented as being equally difficult across genders. The study suggests that performance and motivation of women may be affected by a woman's own implicit biases on her expected performance compared to men.

- *Improves investments by women:* Women may underinvest in their own human capital if they believe leadership opportunities are unavailable. Through providing incentives or the opportunity for political or corporate advancement, quotas can encourage women to invest more in their education, career, and leadership potential.

### Anti-Quota

*Worsens allocation:* If leadership ability differs by gender then the current paucity of female leaders may be the efficient outcome, and using quotas could worsen allocation by assigning leadership positions to worse-performing leaders. One such scenario is if quotas encourage promotion of inexperienced women, and experience, in turn, predicts performance – a situation we discuss in Section 5.5.

*Negative Externalities:* Quotas may also have negative effects on potential women leaders, resulting in a less-efficient allocation of female leaders.

- *Reduces women's incentives to invest:* A quota can reduce a woman's incentive to invest if she believes her path toward advancement has been made easier with a gender quota. (On this channel, see Coate and Loury 1993.)
- *Worsens attitudes:* If voters are forced to select a female candidate and feel their choices are thereby restricted, they may lash out against women. This backlash could also result from a perception that quotas are violating social norms and lead to increased discrimination or even persecution of women, as in Pakistan following the implementation of the reserved seats legislation.<sup>50</sup> Quotas placing women in counter-stereotypical positions may result in increased taste discrimination (Rudman and Fairchild 2004). Furthermore, women who are selected through quotas may be stereotyped as less qualified by colleagues or constituents, and this may nullify the gains of having a female leader.

## **5. The Impact of Quotas**

### **5.1 Descriptive Representation**

In most cases, quotas have led to an immediate and substantial increase in female representation.

#### Political Quotas

On average, female representation among legislators stands at 22% among countries with any type of gender quota versus 13% in countries without a quota.<sup>51</sup> Reservation, by its nature of designating specific political seats for women by law, has been the most successful in guaranteeing an increase in female leadership to a particular target level. However, many countries set the target for reserved seats below the UN recommended quota level of 30%, which results in lower levels of female representations than in countries with higher targets. For example, Djibouti and Niger have 10% reserved seats for women, while Jordan has only 5.45%.

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<sup>50</sup> Krook, M. (2009), pp. 78-79.

<sup>51</sup> Data from the Quota Project Database and the Inter-Parliamentary Union database online.

Other countries such as India, the Philippines, Burundi, and Eritrea have set higher levels of 30% and above, which contributed to a dramatic increase of women leaders associated with legislation of reserved seats at either the national or sub-national level. We cannot attribute the higher levels of representation in these countries solely to the quotas, however, since it is reasonable to suspect that countries more open to female leadership are more likely to implement quotas.

Voluntary party quotas are the most common type of quota and are currently in place in 51 countries, which constitutes 61% of all countries with any type of gender quota. The quota level varies significantly within a country across political parties, as well. Caul (2001) uses a cross-country analysis for 70 parties in 11 European countries from 1975-1995 to show that the adoption of voluntary party quotas is positively correlated with leftist party values and whether other parties in the country have adopted a voluntary quota. Voluntary quotas are often related to changing public attitudes and signify party commitment to gender equality, which also contribute to higher levels of female representation. Largely due to these issues, we lack good empirical evidence on the impact of voluntary quotas.

Legislated candidate quotas have been the least successful in guaranteeing a target increase in female political representation, as enforcing placement of women on candidate lists does not necessarily guarantee that they will get elected, and their success often depends on the type of electoral system. Jones (2009) evaluates the effect of candidate quotas on female representation in national legislatures in Latin America, how quotas interact with the existing political system and how party magnitude<sup>52</sup> affects female candidates. The study finds that the highest expected percentage of women elected from a party in an electoral district is obtained by closed list<sup>53</sup> quota systems (30%), followed by open-list<sup>54</sup> quota systems (22%), open-list no-quota systems (13%), and closed-list<sup>55</sup> no-quota systems (10%). Regressions on five subsamples with different party magnitudes suggest that quota systems outperform non-quota systems only when party magnitude is greater than one (i.e. when the number of seats a party is expected to win in a district is one or more). The closed-list quota system outperforms the open-list quota system only when party magnitude is two.

Two recent academic papers demonstrate how candidate quota systems can be manipulated to limit the intended increase in descriptive representation for women. The quota law passed in 2007 in Spain's proportional representation system mandates a minimum of 40% for both sexes on candidate lists for elections to the national legislature, but only resulted in 36% of representatives in the House and 30% of representatives in the Senate being women after the 2008 elections.<sup>56</sup> Esteve-Volart and Bagues (2010) shows that this was due to parties putting women at less-favorable positions on ballots in districts where only the top candidates from the

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<sup>52</sup> The number of seats a party is expected to win in a district.

<sup>53</sup> In a closed list proportional representation system, parties typically present a list of candidates for all available seats (as if they could win them all), ranked by order of priority. Then the top candidates receive the seats won in order of their rank.

<sup>54</sup> In an open list system, voters have some influence on the order in which a party's candidates are elected. In addition to the party's order, voters can add their own ranking of candidates to show where they disagree with the party's ranking. Or the party may have listed their candidates without any preference, leaving it to the voters to rank them. Additionally, an open list system can also allow a voter the alternative of voting for the party as a whole without expressing a preference between individuals.

<sup>55</sup> Though the 10% is not significantly different from the result of open list no quota systems.

<sup>56</sup> Inter-Parliamentary Union, <http://www.ipu.org>

party will likely get selected. For example, in the Senate election, women constituted 20% of candidates in positions that were expected to be won, and 53% in positions that were expected to be lost. Since candidates are listed alphabetically on electoral lists, this was accomplished through women with names later in the alphabet being selected for more contested areas. In order to prevent this kind of party manipulation, a policy such as a rotating ballot order would need to be implemented.

Similarly, in France, the 2000 Congress quota law mandated equal selection of women and men as candidates on their electoral lists,<sup>57</sup> but only 12.3% of deputies elected in 2002 in the National Assembly and 28% of legislators elected in 2001 in the Senate were women. Fréchette, Maniquet and Morelli (2008) shows that, given a single-member district system in the Assembly and a demonstrated voter preference for male candidates in France, women faced a considerable disadvantage in getting elected to the deputy positions. In 2002, the probability of winning for a male incumbent was 10 percentage points higher if he was running against a female versus a male. This advantage put male incumbent deputies largely in support of the quota law. Moreover, the authors show that once the quota law was passed, a large portion of male incumbent senators resorted to creating new political parties in order to generate a separate candidate list for each new party, resulting in a greater probability of their own reelection.

### Corporate Quotas

The use of corporate quotas has led to a clear increase in female representation on boards in Norway, the only country with a legislated corporate quota that has passed its target deadline, though it took over four years from the passing of the law for all companies in Norway to comply. By January 2008, when the grace period for meeting the quota requirement had expired, 77 out of an estimated 450 public limited companies had still not met the gender quota requirements. Accordingly, the Norwegian federal Brønnøysund Registration Centre (a government body under the Norwegian Ministry of Trade and Industry) contacted these companies to inform them that they had four weeks to comply, under threat of dissolution (which is the standing policy under the Norwegian Companies Act for any company failing to establish a board in accordance with the law). All companies complied with the law by mid-2008.<sup>58</sup>

There is also some evidence of an avoidance of the quota in Norway, as well, by companies not in support of the law. Ahern and Dittmar (2010) provides observational evidence that after the quota legislation was passed in Norway, more firms chose to become private instead of public limited firms. In addition, they show that more Norwegian firms chose to register in the U.K. rather than in Norway. While they are not empirically able to attribute these moves directly to the quota law, the evidence is quite suggestive.

Spain has set 2015 as the target date for compliance with the quota, but the law does not provide for sanctions against companies that violate the target. Most other countries with corporate quota laws do not have sanctions built in, either, but since their deadlines have not yet passed, we cannot yet determine if companies will meet the targets set by the quotas.

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<sup>57</sup> “The parity law takes different forms in the different types of elections, and in the case of the Assembly it means that each party should have between 48% and 52% of candidates of each gender across districts. For closed list elections, the parity law requires the parties to alternate men and women in the lists.”

<sup>58</sup> Storvik, A. & Teigen, M. (June 2010). Women on Board: The Norwegian Experience. *Friedrich-Ebert-Stiftung, International Policy Analysis*.

Gender quotas intended to give more women an opportunity to serve as leaders can also be at least partly circumvented by corporations allowing directors to serve on multiple boards. Seierstad and Opsahl (2010) uses descriptive statistical analysis to show how the quota law in Norway is associated with an increase in women serving on multiple boards. The maximum number of directorships held by any single person also increased (from 4 to 8 during the period under observation). While the percentage of women on each board increased, this is not necessarily reflected in a proportional increase in the number of female leaders. It appears that women who are experienced with board membership were often selected to serve on boards of additional companies. There is mixed evidence on whether companies replace male directors with female directors or if they increase the overall size of the board in order to reach the target.

### Findings from Descriptive Representation

The evidence on descriptive representation suggests a couple of things. First, at least in the political arena, there is no evidence that women are unwilling to participate in leadership contests – there are no instances of countries having to disband quota systems because they could not find enough leaders. The corporate evidence on this is harder to interpret since instances of women serving on multiple boards could be consistent with recruiters being unwilling to try out less experienced women or women outside their existing network of business contacts.

A second finding is that the design of quota systems matters. This includes the structure of the electoral system for political quotas and the sanctions for noncompliance in both the political and corporate sectors. By definition, gender quotas seek to increase the pool of candidates and reduce the likelihood of male candidates. In politics, a concern by parties and voters that women are worse leaders and/or a desire to protect incumbents has partially restricted the success of candidate quota systems in affecting representation. In the corporate sector, a similar concern among existing boards or senior management at firms has led to tactics to circumvent the quota law. The design of the quota systems plays a large role in limiting or allowing these effects.

## **5.2 Participation**

### Political quotas

Political quotas can also have indirect effects on participation in politics apart from the direct increase of women in leadership positions. This may take one of three forms: running for election as a candidate, voting as a constituent, or voicing one's political preferences as a citizen. Increases in participation can happen through various channels, such as the role-model effect, increased aspirations, or greater confidence because of leaders with a more similar identity.

In terms of participation of female candidates, using data from Mumbai, India, Bhavani (2009) shows that in non-reserved areas, the average was less than one female candidate per constituency, reflecting the extremely low level of female participation as candidates without the quota policy. When only female leaders are allowed in a district, the participation of women as candidates increases substantially: there were an average 7.5 more female candidates in reserved constituencies versus non-reserved in the 1997 elections. Over 95% of candidates in unreserved districts were male. When the quota mandated that only women were permitted to run for seats in reserved districts, thereby removing competition from men, the random assignment of reservation indicated that there was an estimated 10-fold increase in women running for office.

In addition, Bhavani (2009) provides causal evidence that the number of female candidates was 7.4% higher in open districts in the election cycle following a cycle where the seat was reserved for a woman, indicating that there was a sustained effect of increased female participation even when the reservation policy was no longer directly in effect in a specific constituency. Expanding on this evidence, Beaman et al. (2009) evaluated electoral outcomes in unreserved constituencies to find that in twice-reserved (but not once-reserved) Panchayats in West Bengal, the number of female candidates elected more than doubled (from 4.8% in never-reserved to 10.1% in twice-reserved). The delay of the effect to occur after having a female leader twice suggests that discrimination takes time to diminish in order to lead to sustainable impacts.

There is limited evidence on the impact of quotas on voter turnout. This is one area where it would be useful to have more research.

In citizen participation, Beaman et al. (2010) uses the random assignment of reservation to show that the likelihood that a woman speaks in a village meeting in India increases by 25% when the local political leader position is reserved for a woman. This increased willingness may result directly from the quota policy requiring the presence of a woman leader at the meeting, or indirectly from changes in the social setup resulting from female leadership. Regardless, the quota reservation policy is responsible for the increase in female citizen participation.

### Corporate quotas

Within the corporate sphere, there is no causal evidence on the impact of quotas on participation, but some studies suggest that there is a positive relationship between board diversity and the participation of women in other high-level positions in a company.<sup>59</sup> Matsa and Miller (2011) builds on this work using data from large corporations in the U.S. to show how an increase in female presence on boards of directors may lead to an increase in women among top executives at a business. Specifically, the study finds a positive association between female share of the board of directors in the previous year with the female share among of top executives in the current year, which suggests causality. This literature gives support for top-down policies such as board quotas in order to increase female participation in higher ranks of the labor force, but more research is needed to corroborate this evidence.

## **5.3 Policy and Economic Outcomes**

A growing body of evidence also evaluates the policy and economic impacts of gender quotas. The focus of this literature has been two-fold: first, to determine if female leaders better represent the policy interests of female constituents. Second, to evaluate if female leadership alters the overall efficacy of elected leaders.

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<sup>59</sup> For example, in a study of Fortune 500 firms in the U.S., Biliomorina (2006) shows that the share of female board members is positive and significantly correlated with the share of female line officers, the share of women among high-ranking officers, and the presence of women among the firm's top five earners.

## Political quotas and policy outcomes

### *Provision of goods:*

A growing literature exploits close elections between male and female candidates to examine whether they make different policy decisions. These regression-discontinuity design studies find significant evidence that female legislators make more pro-female policies (see Rehavi 2007 for U.S. and Clots-Figueras 2007 for India). Papers using a similar methodology find that female representatives in the U.S. perform better in certain areas than men (see Ferreira and Gyourko 2011 for female mayors having a higher reelection rate and Anzia and Berry 2010 for legislators securing more discretionary federal funds for their districts and sponsoring/co-sponsoring more bills).

This finding is echoed by recent impact studies of gender quotas. Several studies evaluate the effect of gender quotas on the quality of representation in India by assessing the impact of increased female leadership on women-preferred and male-preferred goods. Another factor that makes the Indian system useful for our analysis is the significant policy-making power that the leader of the village council enjoys. The village leader has the final say in the allocation of public funds across different investment categories and in beneficiary selection in the village council. The set-up of India's plurality rule and single-member jurisdictions allows us to directly analyze the policy impacts of having a female leader.

Chattopadhyay and Duflo (2004) identifies male- versus female-preferred goods through the fraction of formal requests made by villagers to the village council in districts in Rajasthan and West Bengal, demonstrating that men and women differ in their policy preferences. For example, petitions for investments in drinking water in West Bengal account for 31% of requests made by women compared to 17% by men (54% versus 43% in Rajasthan), a gap largely explained by the fact that women are typically responsible for collecting drinking water in India.

It is likely that gender-specific public and private good preferences vary with economic development and other institutional factors. For example, in their study on the reversal of the political gender gap in the U.S., Edlund and Pande (2002) show that a significant lowering of expected marriage length was associated with women (who are on average poorer outside marriage) switching from being conservative to left-leaning. Between 1952 and 1996 the political gender gap, measured as difference between women who favor democrats and men who favor democrats, went from -2 % to +12%.<sup>60</sup>

In the case of quota studies, evidence of such heterogeneity already exists in Chattopadhyay and Duflo (2004). In Rajasthan there is a relative *male* preference for road improvement (mentioned by 23% of men to 13% of women) while there is a *female* preference for the same policy issue in West Bengal (31% women to 25% men). These differences are not surprising when one

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<sup>60</sup> These findings are based on evidence that divorce made men less likely to be a Democrat and women more likely to be a Democrat, resulting in a 38 percentage point political gender gap among divorced adults, which combined with the rising divorce rates in the U.S., contributed to the substantial change in dominant gender preferences.

considers that women provide much of the labor on roads in West Bengal, and men use roads more to travel in Rajasthan, often in search of work.<sup>61</sup>

Using these demonstrated preferences by gender, Chattopadhyay and Duflo (2004) shows a 10% difference in frequency of mention of a policy issue by women versus men at the public village council meetings results in a .16 standard deviation change in provision of that good in West Bengal and a .44 standard deviation increase in Rajasthan. This equates to an estimated 9.09 more drinking water facilities in reserved districts in West Bengal and 2.62 more in Rajasthan. As expected, investments in roads were greater in reserved districts in West Bengal but less in Rajasthan compared to unreserved. Essentially, the study demonstrates that the reservation policy increased investment in goods favored by women in areas where the leadership position was reserved for a female, thereby increasing the quality of substantive representation (i.e. the interests of women are better represented).

The new women leaders were on average less educated, less experienced, and less wealthy than previous candidates (who were largely male), but controlling for these characteristics did not eliminate the impact of gender on the policy outcomes. This indicates that the differences in policy outcomes were driven by gender rather than these specific characteristics.

Other studies have also suggested that effects may be region-specific: using data from South India, Ban and Rao (2008) fails to find evidence of women leaders favoring female-preferred goods. A study by Bardhan, Mukherjee, and Torrado (2010) exploits variation over time within a West Bengal village, and also find no impact of female reservation on public good provision.

Beaman et al. (2010) helps us reconcile the heterogeneity in these results through use of data from the Millennium Survey which spans eleven Indian states. The study shows that, on average, gender quotas increase investments in water infrastructure<sup>62</sup> and education. Overall, gender quotas raise the attention given to issues prioritized by females, in addition to a visible increase in service provision in that policy area. In this case, one might suspect that the redirection of resources to water projects may have resulted in a decrease in resources to male-preferred policy areas. The same study, however, finds no evidence that the amount or quality of service provision in other policy areas decreased in villages with a mandated female leader. In addition, there is some evidence that the influence of reservation on public good provision persists even after reservation ends. This may explain why comparing outcomes within a village during and after reservation (as in Bardhan, Mukherjee, and Torrado 2010) may understate the reservation impact.

Beaman et al. (2010) expands on this as well, using village survey data from West Bengal to demonstrate the women leading in twice-reserved districts not only provides a greater level of female-preferred goods (i.e. water infrastructure and sanitation), but also provides a greater level of male-preferred goods (i.e. irrigation and schools), indicating that experience may strengthen political performance. The evidence shows women maturing as leaders over time and expanding the scope of their investments (while continuing to emphasize drinking water, the primary

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<sup>61</sup> Abdul Lateef Jameel Poverty Action Lab (2006). *Ain't No Stopping Us Now — Women As Policy Makers. Policy Briefcase Number 1.*

<sup>62</sup> Public drinking water taps and hand-pumps.

female-preferred good), resulting in an efficiency gain of a higher overall level of public service provision.

Iyer et al. (2010) uses the random assignment of female reservation and variation in timing of political decentralization in India to show how the quota policy led to a 44% increase in reported crimes against women and a related increase in number of arrests for these crimes.<sup>63</sup> There was no increase in crimes against men or areas of gender-neutral crime, such as burglaries, riots, arson, or counterfeiting, indicating that the effect was not redistributive but, in fact, resulted in an efficiency gain. In other words, there is an overall net increase in the quality of public service provision to constituents as a whole. The lack of an increase in other crime areas provides evidence against the idea that crime rates might have increased after women leaders took office because they were less effective leaders in controlling crime. The role of attitudes in increasing crime reporting by women is explained in Section 5.4.

### *Corruption*

Survey evidence also suggests that Indian female leaders elected under the reservation system are less corrupt than male leaders. Using the Millennial Survey, Beaman et al. (2010) finds that local female leaders in reserved districts accept fewer bribes than their male counterparts across India. The model estimates that 10.2% of all villagers surveyed had to pay a bribe, but when they had a female leader, male villagers reported paying bribes 2.7 percentage points less and female villagers reported bribes 3.2 percentage points less. This lower cost, combined with the greater provision of public goods, implies an efficiency gain from the quota system. Similar results are presented in Chattopadhyay and Duflo (2004) for the districts in West Bengal and Rajasthan. Still, it is possible that inexperience rather than preferences limits corruption on the part of women.

### Corporate quotas and economic outcomes

The role of a company's board is to monitor the management team and provide it with advice and guidance. The first task is to establish whether the composition and membership characteristics of a corporate board influence corporate policies. Existing literature has focused on the impact of bankers and accounting experts as board members, and on the role of insiders, and finds that funding and policies are both influenced. External funding increases as commercial bankers join a board, and bond issues increase as investment bankers join.<sup>64</sup> The presence of directors who have a Certified Public Accountant (with CPA) or Chartered Financial Analyst (CFA) degrees on the audit committee is negatively correlated with the number of earnings restatements.<sup>65</sup> Research and Development (R&D) spending is higher in firms with a higher share of insiders on the board.<sup>66</sup>

To the extent that women and men differ in their managerial and other skills, we may expect gender diversity to matter. In the psychology literature, women are cited as exercising more democratic and transformational/inspirational styles of leadership, compared to the autocratic, task-oriented, and transactional tendencies of male leaders (Eagly and Carli 2003). Similar

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<sup>63</sup> Percent increase not reporting in the latest version of the working paper.

<sup>64</sup> Gruner et al. (2007).

<sup>65</sup> Agrawal & Chadha (2005).

<sup>66</sup> Baysinger et al. (1991) and Hill & Snell (1988).

results are found in a self-reported survey of 9000 leaders and managers in the U.S., which showed women utilizing the leadership behaviors of *people development, expectation and rewards, role model, inspiration, and participative decision-making* more often than men (McKinsey 2008).<sup>67</sup> In as much as these characteristics differentiate women from men in a productive way for corporate boards, they can contribute through a diversity of skills.<sup>68</sup>

Correlational evidence has been widely used to argue that diversity improves board performance. Erhard et al. (2003) shows that board diversity, as measured by the share of female board members and board members from ethnic minorities, is positively correlated with firm financial performance, after controlling for a number of firm and industry characteristics. Aarat, Aksu, and Cetin (2010) presents similar evidence for Turkey and suggests the channel is monitoring.<sup>69</sup> Several other studies find a positive relationship between female directorship and financial performance (Lückenrath-Rovers 2010, Kotiranta, Kovalainen, and Rouvinen 2007). Because these studies only present correlations, we are not able to identify the impact of diversity or female leadership. It may be that higher performing firms choose to have more female directors and managers. Much of the empirical literature on diversity is unable to account for the fact that better performing companies may also be led by individuals who favor diversity.

More rigorous evidence comes from Adams and Ferreira (2009). This study uses data from 85,000 board directors in the U.S. in probit and fixed-effect OLS regressions to show that women have a better attendance record than men. In addition, the study finds that men have a better attendance record in more gender-diverse boards. Female board members are also more likely to sit on the audit, corporate governance and nominating committees (i.e. monitoring-related committees), but less likely to sit on the compensation committee. The paper also shows that CEO turnover is more sensitive to firm performance on more gender-diverse boards, suggesting that women may act as tougher monitors than men on corporate boards. The study also finds that, on average, firms with more women on their boards perform worse, in that they have a lower Tobin's Q<sup>70</sup> and return on assets. However, as predicted by the theory that suggests gender diversity increases firm value only when firm value is positively associated with monitoring, the paper finds that gender diversity increases firm value in firms with weak shareholder rights and reduces firm value in firms with strong shareholder rights.

Causal evidence on the impact of corporate board quotas is presented in two recent academic papers. Matsa and Miller (2011) uses difference-in-difference and triple-difference strategies to evaluate a panel of Scandinavian companies over 10 years and provide causal evidence that

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<sup>67</sup> Men, in contrast, rely on the behaviors of control and corrective action and individualistic decision making.

<sup>68</sup> For example, American women have higher college grade point averages (GPAs), and graduation rates than men (Conger and Long 2010), despite lower standardized test scores in math (Fryer and Levitt 2010), which suggests some non-cognitive abilities that may be stronger among women.

<sup>69</sup> He uses data from 95 Turkish companies to construct a diversity and monitoring index. (Diversity index is % of proportion of women, % of foreigner on the board, % of board members in different age categories, % of board members in different education categories, % of independent board members. Monitoring index comprised of number of board meetings, the number of board committees, auditing and financial reporting quality, and the firm's disclosure intensity.) He finds that firm performance (return on equity [ROE], market-to-book ratio and Tobin's Q) is positively associated with diversity and that monitoring intensity is positively associated with diversity, using OLS regression techniques. However, when firm performance is regressed on board diversity and monitoring intensity, only monitoring is significantly associated with performance. The authors interpret this as suggesting that board diversity affects performance through monitoring.

<sup>70</sup> Tobin's Q is the ratio of the firm's market value to its book value of assets.

corporate gender quotas led to a short-term loss of profits, largely driven by increased spending on labor. More specifically, the quotas led firms to increase relative labor costs by 21% (through an increase in employment levels, not an increase in wage or supplier costs) and reduced short-term profits by approximately 3%. The increase in labor spending signifies that companies under the quota may not necessarily be worse performing, but they may be driven by a different corporate strategy because of the increased gender diversity of the board. This agrees with survey evidence presented by Adams and Funk (2009) and others that female managers may be more stakeholder-oriented than men and care more about workers at the lower end of the wage distribution.

Ahern and Dittmar (2010) also finds that the corporate gender quota in Norway had a negative impact on firm value in the short term. Controlling for firm and year fixed effects, the study uses a difference-in-difference estimation of the impact of increased female representation on firm value. The treatment group is either all firm-year points after a 10% increase in female representation was reached in the firm, or all firm-year points after the year in which 40% representation was reached in the firm. The study shows that the corporate board quota law caused a drop of 8-15% in Tobin's Q in the treatment group, compared to the control group. However, once other board characteristics (such as average age, CEO experience and whether members are full-time board members) are controlled for, the share of female board members no longer has a significant relationship with Tobin's Q, suggesting that it is the change in board member characteristics, rather than gender per se, that affects firm value. This is in contrast to the findings from the political sphere mentioned above, where policy differences due to the reservation quota were explicitly attributed to the gender of the new leaders.

Several challenges arise in relying on the evidence of these studies for accurately assessing the impact of quotas on corporate board performance. First, corporate boards rarely make decisions directly for firm performance. Instead, the board is charged with overseeing management and setting certain policies for the firm as a group. Therefore, it is very difficult to determine whether the channel of influence is overall board performance, the performance of individual board members, the reaction of management to the gender quota, or the reaction of management to the altered dynamics of the board. Similarly, measures of firm performance that incorporate stock market valuation may be capturing the market's reaction to the quota or to companies complying with the quota, rather than changes in board performance.

In addition, while the announcement of quotas was largely unanticipated, the use of an event study stock return analysis leaves open the possibility that the short-run impact reflected perceptions of performance not actual performance. Matsa and Miller (2011) and Ahern and Dittmar (2008) seek to instead use actual performance data. However, to do so they need to rely on a difference-in-difference method. For Matsa and Miller (2011), the control group is Scandinavian countries other than Norway while Ahern and Dittmar (2008) makes the assumption that outcomes trend similarly for firms that choose to implement the quota early versus those that implement the quota later. The parallel trend assumption between control and treatment groups in the pre-quota period is a relatively strong assumption.

More research is needed on the long-term effects of corporate gender quotas, in addition to research in a larger variety of contexts once the board quota target deadlines are reached in other countries.

## 5.4 Attitudes

Gender quotas are likely to affect attitudes toward female leadership through their impact on discrimination. In the psychology literature, to determine whether women receive biased evaluations, studies have used “Goldberg Paradigm” experiments where the revealed gender is varied (such as through altering the name on a resume or the voice of a speech) and other characteristics are held constant. In a meta-analysis of Goldberg Paradigm experiments on leadership, Eagly, Makhijani, and Klonsky (1992) finds that there is a small but significant bias against female leaders compared to male leaders. The evaluation bias increases dramatically when women exhibited leadership behaviors that were considered stereotypically masculine, such as autocratic or directive styles of leadership.

Though these biases exist, quotas may impact taste and statistical discrimination if preferences are malleable and/or voters are willing to use information to update beliefs. Eifert, Miguel, and Posner (2010) presents causal evidence from Africa to show that ethnic identities become more salient for voters prior to elections, suggesting that political preferences may be changed due to outside circumstances. Boisjoly et al. (2006) uses a field experiment that randomly assigns roommates at a university in the U.S. to show that exposure to a roommate of a different ethnic background significantly increases their support for affirmative action. If preferences are malleable, as the literature suggests they are in a variety of contexts, quotas can serve to change attitudes of both voters and potential women leaders themselves in ways that could reduce the need for quotas in the long term.

### Political quotas and attitudes

Causal evidence on political quotas and attitudes is also largely limited to the Indian case. Beaman et al. (2009) utilizes validated social psychology Implicit Association Tests (IATs) to measure the impact of the Indian reservation policy on discrimination among villagers. A key finding is that reservation-induced exposure to female leaders caused a decrease in implicit gender discrimination among male respondents. This is demonstrated through an IAT that determined that men in never-reserved villages (i.e. they were not exposed to a female leader) subconsciously associate women with domestic activities .11 standard deviations faster than leadership abilities, while exposure to a female leader through reservation causes the speed to fall between the range of .016 to .024 standard deviations. Among male villagers, quotas essentially reduced subconscious biases about beliefs on the appropriateness of women being leaders.

In contrast, Beaman et al. (2009) measures both explicit and implicit taste preferences and finds that after reservation, male villagers increase their preferences against female leaders. This suggests that male villagers react negatively to “being forced to have a female leader” through the reservation system, which supports the backlash hypothesis. This effect, however, is eliminated after two rounds of reservation. The backlash theory seems to hold some validity in the short term, but is eliminated in the long run. This study also presents survey evidence that even when women leaders bring higher quality goods, constituents are less satisfied if it is a female leader. First-time female leaders elected under the reservation system in India also report their gender as creating more on-the-job difficulties. This effect similarly disappears, however, among females elected in second-time reserved districts. Essentially, constituents get used to

quotas over time and there is no evidence of a sustained backlash. Continuing research is needed on the long-term impacts of quotas on caste discrimination.

In a Goldberg Paradigm experiment, the study utilizes hypothetical vignettes of tape-recorded leader speeches to measure explicit statistical discrimination and show that men in non-reserved villages rate females .055 standard deviations below male leaders. In reserved villages, however, this bias is erased, with female leaders being rated by male villagers as .096 standard deviations higher than male leaders. Essentially, having experienced a female leader has caused these villagers to change their priors on the effectiveness of women as leaders, thereby reducing discrimination against women.

A key outcome of interest is whether the reduction in discrimination from quotas is able to translate into increased votes for female candidates, signifying a sustainable long-term impact of quotas on female representation. Along these lines, Beaman et al. (2009) presents causal evidence that the number of female candidates elected more than doubled from 4.8% to 10.1% after two rounds of reservation. The fact that there was no increase in votes for women after one round of reservation is not surprising, given that some measures of discrimination did not improve until after two rounds. It indicates that it takes time for voters to adjust to quotas, learn about the abilities of women leaders, and update their beliefs. The quota was able to generate a change in the attitudes of voters such that, after being exposed to female leaders, a greater portion of them voted for a female candidate even without a quota requirement. Some of this may also be due to a party effect, where it may take time for parties to adjust, particularly to remove incumbents or change their systems and priorities in candidate selection to adequately back female candidates.

Similarly, this same study demonstrates that the proportion of female candidates running for office in unreserved districts also increased by 3.3 percentage points after two rounds of reservation, which signifies a change in the aspirations of potential female leaders. Whether because of increased female role models or the increased opportunity to lead, there is causal evidence that quotas have generated a greater propensity for females to run for office in India.

The results in the Iyer et al. (2010) study on crime-reporting at least partly reflect a change in attitude. Having a female leader caused women to report more crimes against them. Data from the Millennium Survey show that women living in a village with a female head are slightly more likely to approach the police, suggesting that part of the increase in reported crimes was due to a greater confidence among women in having their voice be heard in areas with a female leader. The data also indicates that women were significantly more likely to say that the police solved their case, less likely to pay bribes to the police, and less likely to say that the police refused to register their complaint, which suggests an overall change in police attitude toward women when there is a female leader.

### Corporate quotas and attitudes

There is some qualitative evidence that quotas may change attitudes in the corporate sector. A survey presented by Elstad and Ladegard (2010) finds that female board directors in Norway perceive themselves to have more influence, receive more information, and are more engaged in social interaction with the increased ratio of female board members after the quota law was implemented. If women change their internal expectations to believe that they can perform

equally as men, they may be able to perform better, as well. More evidence is needed on how quotas in the corporate sector affect attitudes and aspirations.

## **5.5 Crowd-out**

There is some concern that gender quotas may cause crowd-out in two areas: in descriptive representation of marginalized groups and in policy outcomes. In this first area, we see no evidence of crowd-out in election results. Beaman et al. (2010) examines the effect of reservations for Muslims in India, a minority group that doesn't benefit from reservation. They find no effect on the likelihood that a Muslim will stand for election, which suggests no crowding out of Muslims.

In terms of crowd-out of other groups in policy outcomes, Bardhan, Mookherjee, and Torrado (2005) finds that the reservation system (which reserves seats both along gender and caste lines) may have improved targeting of a credit program but worsened targeting of employment programs to some socially marginalized caste-groups in West Bengal, India. Evidence from Chattopadhyay and Duflo (2004) shows that male-preferred goods received less investments under a female leader during her first term in office, suggesting some crowd-out. Beaman et al. (2010), however, finds that this effect disappears once a female leader is in office for her second term. Instead, females provide greater investments for both female *and* male-preferred goods, as mentioned in Section 5.3.

In contrast, Iyer et al. (2010) finds no crowd-out of male interests from the increase in female leadership and increase in female-reported crimes or arrests. They also find that the introduction of caste reservations is associated with a large and significant increase in reported crimes against these groups, indicating that this is not a gender-specific issue but is also salient for other unrepresented groups.

## **5.6 Experience**

The Indian studies on gender quotas also shed some light on the relevance of political experience for leadership performance. Beaman et al. (2010) shows that women Panchayat leaders are more effective at delivering public goods at a lower price (i.e. with less corruption), despite their lack of experience. The same results are also demonstrated in Chattopadhyay and Duflo (2004). While this does not negate the value of experience, it demonstrates that a lack of experience doesn't preclude effective leadership. However, the findings in Beaman et al. (2010) do suggest that political experiences causes women to expand the ambit of public goods provision; this finding is consistent with experience making women more willing to take a broader view of policy-making.

Similarly, Ban and Rao (2008) find that while women without previous political experience perform slightly worse than their male counterparts, this difference disappears once women gain 1.3 terms of experience.

While it remains unclear whether experience is necessarily a prerequisite of good performance, the evidence across studies agrees that quota-induced experience increases effectiveness of women political leaders and can result in efficiency gains for the constituency through female representatives.

In the corporate sector, there is an acknowledgement that on average women have less professional experience than men, which translates to female board members. Matsa and Miller (2010) presents simple descriptive statistics that women on corporate boards in 2009 in Norway were 5 years younger than males and significantly less likely to have CEO experience. In addition, women were significantly more likely to have industry experience in education, law, and the public sector, and less likely to have industry experience in engineering. Ahern and Dittmar (2010) attributes the loss in firm value after the gender quota in Norway to the younger age and lower amount of high-level job experience among female board members. Matsa and Miller (2011), on the other hand, attributes the short-run loss in value to differences in board members styles and preferences, which resulted in investments intended to maximize outcomes in the long run. More research is needed to discern the role of experience on corporate boards, especially given the indirect role of corporate board members on firm outcomes and the difficulty of isolating actual board member performance from perceptions of that performance (which may affect the attitudes of management or stock prices) based on gender.

## **6. The Intention and Effectiveness of Quotas: Implications for Design**

### **6.1 Political quotas**

We find strong evidence that in politics certain types of quotas have worked as intended. Quotas that reserve seats for women are effective in changing proportions of legislators in government, and over time, changing attitudes towards woman legislators.

Moreover, the low proportion of female legislators in many countries is not a consequence of an absence of willing female candidates. Women have responded to opportunities afforded by quotas to run for, and assume, elected office. The barriers to women getting elected appear to be persistent negative attitudes towards female leaders and a (possibly linked) failure by political parties and systems to promote female candidates.

Furthermore, while female leaders (elected via quotas) have significantly less experience than male leaders, this does not translate into worse policy-making. While women do make different policy choices than men, these choices typically reflect their willingness to put a greater weight on the preferences of women. Thus, if one metric for judging the quality of policy-making is the extent to which different groups obtain representation, quotas are effective.

There is also strong evidence that voters' implicit attitudes and willingness to vote for women are strongly and positively changed by persistent exposure to female leaders. So it is possible that, in some circumstances, quotas can be an effective temporary measure that will allow the erosion of the false negative attitudes that act as barriers to descriptive representation for a more long-term effect.

### **6.2 Corporate board quotas**

At this point, we know much less about the effectiveness of corporate board quotas. The evidence suggests that, if governments demonstrate a willingness to punish non-compliers then they can increase female representation in the corporate sphere. The link between women on the board and firm outcomes is, however, more tenuous, and, indeed, there are some indications that firm performance might look worse in the short run. However, we need more evidence before we

can conclude whether corporate board quotas lead to better or worse firm outcomes in the long run, as suggested by Matsa and Miller (2011). There are several reasons for this. First, board decisions are mediated through management and the medium to long-term impact of quotas will depend on whether and how management changes attitudes towards female leaders over time. Unlike female leaders in politics, board members in a corporation rarely make decisions directly. Thus, how the management (and the stock market) perceives the efficiency impact of changes in board membership is likely to be a key factor of influence. If management or stockholders start with biased views of how changing board composition influences firm outcomes, then these may be self-fulfilling (especially when it comes to stock market valuation).

Second, to the extent that female board members make different labor hiring and firing choices, the benefits may accrue over a longer time horizon while costs are borne upfront. Third, as we have discussed earlier, the empirical tests of board quotas rely on difference-in-difference methods which make stronger assumptions on comparability of treatment and control groups.

### **6.3 Design of quotas and institutional systems**

There is strong evidence that the *design* of quotas is important in allowing women to succeed in obtaining descriptive representation. In politics, systems that allow party leaders and incumbents influence in determining ballot order of candidates and the gender allocation within a party list tend to disadvantage women (as seen in the examples of Spain and France). Quotas are often politically contentious, with various parties or groups seeking to undermine them. While some policy solutions have been suggested, such as sanctions and rotating candidate lists, continued research is needed on how implementation design influences success. Equally, in the corporate sphere firms exploit loopholes about where to register in order to avoid having to fulfill quotas.

It is clear that such behavior reflects the fact that women crowd out men and incumbents often seek to prevent such crowd-out. There is little evidence, however, that quotas result in crowd-out for other underrepresented minorities.

As of now, we lack strong empirical evidence on how the structure of the political system and a firm influences the policy influence afforded to female legislators and board members. For example, in India, local government positions that are reserved under the reservation system allow a sole leader (a woman in one third of the village areas) to have jurisdiction on how resources are utilized in her area of governance. In Pakistan, although seats are reserved for women at a similar local level, the political system requires that decisions are made by a group, where the mandated women leader is one of the group.<sup>71</sup> Accordingly, female leadership in politics may not have as large an influence on actual policy implementation.

A related issue is presented by Konrad and Kramer (2008), which provides a detailed qualitative analysis that a critical mass of at least three women in a boardroom is necessary in order to see the positive benefits of gender diversity. McKinsey presents correlations that companies with three or more women score higher on various measures of organizational performance. This is an important constraint to the benefits of female leadership, especially in countries such as the U.S. where 87% of the Fortune 500 companies have at least one female board director but less than

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<sup>71</sup> Rai, S., Bari, F. Mahtab, N., & Bidyut Mohanty (2006). *South Asia: Gender Quotas and the Politics of Empowerment – a Comparative Study*, In *Women, Quotas and Politics*, D. Dahlerup, Ed., New York: Routledge.

20% had three or more women.<sup>72</sup> In order for quotas to be effective for substantial policy change, they may need to take critical mass into consideration.

Continued research is needed to determine how exactly gender quotas impact substantive representation in different institutional environments. Existing evidence demonstrates how quotas can change attitudes through providing information to reduce statistical discrimination and increasing the confidence of female constituents or leaders. An important area of future research will be on direct empowerment effects — on within-household decision-making and aspirations, for example.

There is currently little evidence on the long-run causal impact of quotas and this will be an important area of research as more time elapses from the implementation of the quota policies in India and Norway. It would be valuable to have rigorous evidence from other countries on their experience with quotas, but that may remain limited by the empirical difficulties of controlling for reverse causality and selection bias in other contexts. Additional research is also needed to determine whether preferences are sufficiently malleable that taste discrimination continues to reduce over time. The future use of quotas depends on a detailed understanding of how robust these long-run impacts are.

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<sup>72</sup> Catalyst (2009), Catalyst Census: Fortune 500 Women Board Directors, available at: [http://www.catalyst.org/file/320/2009\\_fortune\\_500\\_census\\_women\\_board\\_directors.pdf](http://www.catalyst.org/file/320/2009_fortune_500_census_women_board_directors.pdf)

**Table 1. Economic Development and Female Representation**

	Dependent variable: Share of female legislators in the national assembly (lower house)			
	I	II	III	IV
GDP per capita (2000)	0.000128 (0.0001047)	0.000130 (0.0000989)		
GDP per capita (2005)			0.000109 (0.0000926)	0.000111 (0.0000876)
Party quota dummy	1.396 (-2.1660)	2.23 (-2.073)	1.529 (-2.145)	2.317 (-2.056)
Candidate quota dummy	5.711** (-2.379)		6.038** (-2.324)	
Reserved seat dummy	8.407*** (-3.129)		8.321*** (-3.125)	
Candidate quota (as % of seats)		0.189*** (-0.065)		0.198*** (-0.0640)
Reserved seat quota (as % of seats)		0.609*** (-0.14)		0.603*** (-0.14)
Africa	-3.415 (-3.427)	-3.612 (-3.233)	-3.263 (-3.376)	-3.499 (-3.19)
Latin America	-4.113 (-3.195)	-3.763 (-3.02)	-4.108 (-3.144)	-3.766 (-2.984)
Middle East	-12.645*** (-3.622)	-11.854*** (-3.451)	-12.414*** (-3.597)	-11.667*** (-3.434)
Asia	-7.969** (-3.492)	-7.730** (-3.331)	-7.458** (-3.382)	-7.186** (-3.236)
Observations	124	124	126	126
R2	0.24	0.313	0.234	0.305

Standard errors in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1. The excluded category for regional fixed effects is Europe and Western countries (USA, Canada, Australia). Data from Penn World Tables (Version 6.3), the Global Database of Quotas for Women (<http://www.quotaproject.org/>), and the Inter-Parliamentary Union (<http://www.ipu.org/wmn-e/classif.htm>).

**Table 2: Political quotas***(Note that countries without electoral quotas are not listed.)**Source: Quota project, <http://www.quotaproject.org/uid/search.cfm>*

Country	Voluntary political party quotas (target %)	Legislated Quotas (target % / current % of female legislators)		
		Single/Lower House	Upper House*	Sub-National Level
Europe and Western Countries				
Australia	Yes (40%)	None	None	None
Austria	Yes (33.3-50%)	None	None	None
Belgium	No	Candidate (50/39%)	Candidate (50/43%)	Candidate (50%)
Bosnia and Herzegovina	No	Candidate (33/19%)		Candidate (33%)
Canada	Yes (25-40%)	None		None
Croatia	Yes (40%)	None		None
Cyprus	Yes (30%)	None		None
Czech Republic	Yes (25%)	None		None
Former Yugoslav Republic of Macedonia	No	Candidate (33/33%)		Candidate (33%)
France	Yes (50%)	Candidate <sup>1</sup> (Actual: 19%)	Candidate <sup>2</sup> (Actual: 22%)	Candidate <sup>3</sup>
Germany	Yes (40-50%) <sup>4</sup>	None	None	None
Greece	Yes (40%)	None		Candidate (50%)
Hungary	Yes (22%) <sup>5</sup>	None		None
Iceland	Yes (40%)	None		None
Italy	Yes (50%)	None		None
Lithuania	Yes (33%)	None		None
Luxembourg	Yes (33-50%)	None		None
Malta	Yes (20%)	None		None
Netherlands	Yes Labor Party: (Approx 50%) <sup>6</sup>	None		None
Norway	Yes	None		None

\* if blank, the parliament is unicameral

<sup>1</sup> The difference between the numbers of candidates a party or group present of each sex can not be greater than two percent in the single member constituencies, taken nationwide<sup>2</sup> For the list PR election to the Senate (the larger districts) a strict alternation between men and women on the lists is required<sup>3</sup> Strict alternation on candidate lists is required for regional councils, municipal councils in towns with more than 3 500 inhabitants, in elections to the local bodies in Corsica and Saint-Pierre-et-Miquelon, the council of Paris and the municipal arrondissement councils of Paris, Lyons, and Marseille<sup>4</sup> For The Left Party: On nomination lists, the first two and then every other place are reserved for women<sup>5</sup> In the party's National Assembly and European Parliament electoral lists maximum two repeated candidates of the same sex may follow each other.<sup>6</sup> GL Party also has quotas for women (percentage not confirmed).

	(40-50%)			
Poland	Yes (30%)	None		None
Portugal	No	Candidate (33/27%)		Candidate (33%)
Romania	Yes (30%)	None		None
Serbia	No	Candidate (30/22%)		Candidate (30%)
Slovakia	Yes <sup>7</sup>	None		None
Slovenia	Yes (33%)	Candidate (35/14%)		Candidate (30%)
Spain	Yes (40%)	Candidate (40/37%)	Candidate (40/31%)	Candidate (50%)
Sweden	Yes (Approx 50%)	None		None
Switzerland	Yes (40%)	None		None
United Kingdom	Yes (50%)	None		None
<b>Africa</b>				
Country	Voluntary political party quotas	Legislated Quotas		
		Single/Lower House (target/actual representation %)	Upper House* (target/actual representation %)	Sub-National Level (target %)
Botswana	Yes (30%)	None		None
Burkina Faso	No	Candidate (30/15%)		Candidate (30%)
Burundi	No	Reserved seats (30/32%)	Reserved seats (30/46%)	None
Cameroon	Yes (25-30%)	None		None
Côte d'Ivoire	Yes (30%)	None		None
Djibouti	No	Reserved seats (10/14%)		None
Egypt	No	Reserved seats <sup>8</sup> (Actual: 2%)		None
Eritrea	No	Reserved seats (30/22%)		Reserved seats (30%)
Kenya	Yes (33%)	Reserved seats <sup>9</sup> (Actual: 10%)		None
Lesotho	No	None		Reserved seats (30%)
Mali	Yes (30%)	None		None

<sup>7</sup> The People's Party - Movement for a Democratic Slovakia has target quotas

\* if blank, the parliament is unicameral

<sup>8</sup> "The Law 38 of 1972 concerning the Egyptian People's Assembly (Lower House) was amended in June 2009 to provide 64 seats to which the nominations will be restricted to women. The total number of parliamentary seats was enhanced accordingly. From 28 governorates two women will be elected, one of whom will represent laborers and farmers, in accordance with the present 50 percent quota provision for these groups. In Cairo and Alexandria, due to the higher population, in total 8 more seats will be added. The law will be implemented during two parliamentary cycles, beginning with the next general election 2010, and will only apply to the Lower House."

<sup>9</sup> "In 1997 a constitutional amendment was passed which allows the president to appoint 12 nominated seats in parliament. 6 of these seats have been reserved for women."

Mauritania	No	Candidate <sup>10</sup> (Actual: 22%)	Candidate <sup>11</sup> Actual: 14%	Candidate (20%)
Mozambique	Yes (30%)	None		None
Namibia	No	None		Candidate <sup>12</sup>
Niger	Yes (10%)	Reserved seats (10/10%)		None
Rwanda	No	Reserved seats (30/56%)	Reserved seats (30/35%)	Reserved Seats (30%)
Senegal	No	Candidate (Actual: 22%)	Reserved seats (40/40%)	Candidate <sup>13</sup>
Sierra Leone	No	None		Reserved Seats (50%)
Somalia	No	Reserved seats (12/7%)		None
South Africa	Yes (50%)	None	None	Candidate (50%)
Sudan	No	Reserved seats (13/25%)		None
Tanzania	No	Reserved seats (20/30%)		Reserved seats (25%)
Uganda	No	Reserved seats <sup>14</sup> (Actual: 31%)		Reserved seats (33%)
Zimbabwe	Yes (30%)	None		None

#### Latin America

Country	Voluntary political party quotas	Legislated Quotas		
		Single/Lower House (target/actual representation %)	Upper House* (target/actual representation %)	Sub-National Level (target %)
Bolivia	Yes (50%)	Candidate (33/25%)	Candidate (25/47%)	Candidate (30%)
Brazil	Yes (30%)	Candidate (30/9%)	Candidate (30/12%)	Candidate <sup>15</sup>
Chile	Yes (20-40%)	None		None
Costa Rica	Yes (40-50%)	Candidate (40/39%)		Candidate (40%)
Dominican Republic	Yes (33%)	Candidate (25/21%)		Candidate (50%)
Ecuador	Yes (25%)	Candidate (30/32%)	None	Candidate (30%)
El Salvador	Yes (35%)	None		None

<sup>10</sup> "Before the 2006 elections, quotas for women were introduced by decree. In constituencies which are to elect two members to the National Assembly, all candidate lists must include one candidate of each sex. Where three are to be elected, the lists must include at least one female candidate placed first or second. Where more than three are to be elected, each group of four candidates on the list from the top down must include an equal number of candidates of both sexes. Among the total number of candidates on the list, one sex can only surpass the other by one."

<sup>11</sup> "For the Senate, which is indirectly elected by municipal councilors, the candidate lists in the constituencies in the capital area must include at least one female candidate placed as number one on the list."

<sup>12</sup> "In the election of any local authority council with 10 or less members, party lists must include at least three female persons; with 11 or more, at least five"

<sup>13</sup> No data available

<sup>14</sup> "It is stated in article 78(1) that the parliament shall consist of one woman representative for every district, and such numbers of representatives of the army, youth, workers with disabilities and other groups as Parliament may determine. There are 56 districts in Uganda."

\* if blank, the parliament is unicameral

<sup>15</sup> If the minimum percentage is not met, candidates of the over-represented sex can be removed (but not replaced by candidates of the under-represented sex). However, this only applies if the party submits candidates of the stipulated maximum per constituency. This maximum was raised from 100 to 150 percent of total fillable seats per constituency with the introduction of the quota law. (This provision has minimized the effect of the quota provisions.)

Guatemala	Yes (30-40%)	None		None
Guyana	No	Candidate <sup>16</sup> (Actual: 30%)		None
Honduras	No	Candidate (30/18%)		Candidate (30%)
Mexico	Yes (50%)	Candidate (40/26%)	Candidate (40/20%)	Candidate <sup>17</sup>
Nicaragua	Yes (30-40%)	None		None
Panama	No	Candidate (30/8%)		None
Paraguay	Yes (30-33%)	Candidate (20/13%)	Candidate (20/16%)	Candidate (20%)
Peru	No	Candidate (30/28%)		Candidate (30%)
Uruguay	Yes <sup>18</sup>	Candidate <sup>19</sup> (Actual: 15%)	Candidate <sup>20</sup> (Actual: 13%)	Candidate <sup>21</sup>
<b>Middle East and North Africa</b>				
Country	Voluntary political party quotas	Legislated Quotas		
		Single/Lower House (target/actual representation %)	Upper House* (target/actual representation %)	Sub-National Level (target %)
Iraq	No	Candidate (33/25%)		None
Israel	Yes (10-40%) <sup>22</sup>	None		None
Jordan	No	Reserved seats (5.45/12%)		None
Morocco	Yes (20%)	None		None
Tunisia	Yes (25%)	None		None
<b>Asia</b>				
Country	Voluntary political party quotas	Legislated Quotas		
		Single/Lower House (target/actual representation %)	Upper House* (target/actual representation %)	Sub-National Level (target %)
Armenia	No	Candidate (15/9%)		None
Bangladesh	No	Reserved seats (13/19%)		Reserved seats <sup>23</sup>

<sup>16</sup> Data not available

<sup>17</sup> Data not available

<sup>18</sup> Socialist Party of Uruguay: "The quota is dependent upon the percentage of women members of the Party in each jurisdiction.

<sup>19</sup> "For elections to the House of Representatives, candidates of both sexes must be represented in every three places on electoral lists, either throughout the entire list or in the first fifteen places. Where only two seats are contested, one of the two candidates must be a woman. However, the law limits the application of the quota to the 2014 national election"

<sup>20</sup> For elections to the Senate, candidates of both sexes must be represented in every three places on electoral lists, either throughout the entire list or in the first fifteen places. Where only two seats are contested, one of the two candidates must be a woman. However, the law limits the application of the quota to the 2014 national election

<sup>21</sup> For elections to departmental legislative bodies, candidates of both sexes must be represented in every three places on electoral lists, either throughout the entire list or in the first fifteen places. Where only two seats are contested, one of the two candidates must be a woman. However, the law limits the application of the quota to the 2015 departmental elections

\* if blank, the parliament is unicameral

<sup>22</sup> Likud Party: At least one woman must be among the top 10 after the primaries.

\* if blank, the parliament is unicameral

<sup>23</sup> "In the Fundamental Principles of State Policy of the Constitution of Bangladesh, article 9 stipulates the representation of women in local government institutions. In 1993 direct election of reserved seats for women in the union parishad (union councils) was provided in legislation by the Parliament. The first election to the union parishad, under the new provision, was held in 1997."

East Timor	No	Candidate (25/29%)		No
India	No	None		Reserved seats (33%)
Indonesia	No	Candidate (33/18%)		None
Korea, Republic of	Yes	Candidate <sup>24</sup>		Candidate (50%)
Kyrgyzstan	No	Reserved seats (30/26%)		None
Nepal	No	Candidate (33/33%)		Candidate (40%)
Pakistan	No	Reserved seats (17.5/22%)	Reserved seats (4/17%)	Reserved Seats (17.6%)
Philippines	Yes (25-100% <sup>25</sup> )	None		Reserved Seats (33%)
Thailand	Yes	None		None
Uzbekistan	No	Candidate (30/22%)		Candidate (30%)

<sup>24</sup> “On 12 March 2004, the Political Party Law of 2000 was reformed to include a quota for women. Article 31 of the law specifies that for the list PR elections, whereby 56 deputies are elected, political parties must include 50 percent women on candidate lists. For the majority portion of the election, whereby 243 representatives are elected in single member districts, political parties are recommended to include 30 percent women candidates.”

<sup>25</sup> (Gabriela Women’s Party)

**Table 3: Corporate quotas**

Sources: Corporate Women Directors International (2010), Hoel (2008)

Type of quota	Country	Year introduced	Target for female representation (year to be reached)	Type of companies covered	Impact on representation
<b>Quotas for public limited companies</b>	Norway	2003	40% (2008)	Public limited companies, state-owned companies, inter-municipal companies	Successful in increasing female board representation (reaching 40.3% in 2010)
	Spain	2007	40% (2015)	Public limited companies with 250+ employees	Quota is a recommendation rather than an obligation; so far, female board representation increased little (from 5.2% in 2006 to 10.2% in 2010).
	Iceland	2010	40% (2013)	Public and private limited companies with 50+ employees	Na
	France	2010	20% (2013), 40% (2016)	Public limited companies	Na
	Netherlands	2010	30% in boards and senior management (immediate)	Public and limited liability companies with 250+ employees	Na
<b>State-owned companies</b>	Denmark	2009	30% (immediate)	State-owned companies	Female representation was 30% in 2000 already, and reached 35% in 2009
	Finland	2004	40% (2005)	State-owned companies	Female board representation increased from 30% in 2004 to 44% in 2010
	Iceland	2006	50%-50%, or as close as possible if number of board members is odd (immediate)	State-owned and municipal-owned companies	Target reached by all companies in 2006
	Ireland	2004	40% (no deadline)	State-owned companies	Target not reached, female board representation was 34% in 2009
	Israel	1993	30% (no deadline)	State-owned companies	Female board representation increased from 7.4% in 1993 to 37.8% in 2000
	South Africa	1996	30% (no deadline)	State-owned companies	Slow implementation, female board representation reached 20% in 2000 and 36% in

					2009
	Switzerland	2006	30% (2011)	State-owned companies	In private companies, share of female directors was 8.8% in 2010; information is not available for state-owned companies
<b>Municipal and provincial companies</b>	Quebec	2006	50% (2011)	State-owned companies in the Province of Quebec	Female board representation increased from 28% in 2006 to 42% in 2008
	Berlin	2002	50% (immediate)	Municipal-owned companies in Berlin	Female board representation increased from 6% in 2002 to 50% in 2010
	Nuremberg	2009	40% (2014)	Municipal subsidiaries and companies with municipal equity holding	Female board representation reached 32% in 2010.
<b>Proposed quotas</b>	Belgium		33% (7 years later)	Public limited and state owned companies	Law pending
	Canada		50% (3 years later)	All publicly traded corporations, financial institutions and state-owned companies	Law pending discussion by Senate as of December 2010, insignificant support
	Italy		33%	Publicly traded companies	Law approved by House, pending approval by Senate as of December 2010

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