Towards a gender quota
In 2016, a fixed gender quota will come into force in Germany, affecting the supervisory boards of listed companies that also have employee representation (full codetermination).\(^1\) By as early as September 30, 2015, however, all companies will be obliged to set a self-imposed target quota – even companies that meet just one of these criteria; i.e., either listed or subject to codetermination. A variety of concerns have been expressed about the implementation of this law, including fears that the quota will impair company performance and the quality of the talent pool, or the belief that it discriminates against men and stigmatizes women. The present article examines these key criticisms on the basis of research findings to date. In conclusion, the advantages of a gender quota should allay these concerns since, in the long term, it contributes to dismantling gender stereotypes and consequently also mitigates the negative impact these stereotypes have on the selection of the best candidates for senior management positions.

With the aim of achieving gender parity in senior management in both the private sector and public administration, from 2016 onward, Germany will introduce a gender quota that will apply to all private-sector listed companies with employee representation on their supervisory boards as well as to public services. A decisive factor in the passing of this law was the considerable underrepresentation of women precisely in these spheres. The slow increase in the number of women in senior management positions did not reflect the rapid increase in their educational attainment; for years, women have equaled men in terms of their educational qualifications and, in some areas, even surpassed them.\(^2\) Against this backdrop, there have been growing calls for government intervention.\(^3\) At the same time, the criticism has frequently been voiced that a quota would result in gender being a more decisive factor than the caliber of the candidate in appointments to top management positions.

However, this point of view ignores the possible impact of gender stereotypes on economic decisions and the concomitant unconscious gender bias.\(^4\) This could, for example, result in biased recruitment decisions which irrationally discriminate against suitable candidates on the basis of their gender.\(^5\)

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\(^1\) The Act on Equal Participation of Women and Men in Executive Positions in the Private and Public Sector (Gesetz für die gleichberechtigte Teilhabe von Frauen und Männern an Führungspositionen in der Privatwirtschaft und im öffentlichen Dienst) came into force May 1, 2015. Essentially, the law requires all listed companies with employee representation (full codetermination) to allocate at least 30 percent of seats on their supervisory boards to the underrepresented group (which is usually women), by January 1, 2016. This quota must be met across the entire board; however, in the interest of legal certainty this should apply to both shareholder side as well as employee representative side. Should the company not fulfill these legal requirements, the relevant board seat will remain empty. These companies are also obliged to determine their own voluntary quotas for their executive boards and the highest two levels of management by September 30, 2015 at the latest. This applies also to companies that are either listed or subject to codetermination. Even though they are not forced to the fixed quota, they also have to set voluntary quotas for their supervisory board. However, there are no government sanctions should companies fail to fulfill their own target quotas.


Apart from the purely mechanical effect, i.e., an increase in the number of women in senior management positions, a gender quota also offers an opportunity to counter the impact of stereotypes. The present article is an attempt to explore the potential of a gender quota to dismantle gender stereotypes in the long term. The analysis will primarily draw on findings from studies in the field of behavioral economics.

**Gender Stereotypes Undermine Recruitment of Best Candidates**

Psychological studies have already shown that gender stereotypes exist in relation to types of professions and senior management positions and styles and that these preconceptions have a number of undesirable effects. Economic studies have also demonstrated the effects of gender stereotypes both on the labor supply and the labor demand sides. On the demand side, studies have proven that a subconscious gender bias affects recruit-
experience, and so on is referred to as the unexplained residual and is often interpreted as discrimination. However, this interpretation is the subject of some controversy. The challenge here, for example, is that some characteristics are simply not observable, for instance, actual individual-specific productivity. On the other hand, although other features are observable, they might already be affected by anticipated discrimination, such as self-selection in certain types of jobs. Gender discrimination is confirmed using economic field experiments. In addition to audit or correspondence studies comparing discrimination based on the successful recall or appointment of identical applications (apart from gender) for identical jobs, there are also “blind” studies, such as that by Goldin/Rouse (2000). These show unique gender discrimination when appointing individuals to positions in orchestras. A curtain placed between applicants and decision-makers, enabling a blind audition, helped increase the share of female musicians in orchestras.

Imperfect Information on the Labor Market

Not unlike in the labor market in general, information on the productivity and quality of services offered in the market for executives is imperfect. The demand side attempts to generate ex ante information that allows conclusions to be drawn about the quality of candidates. The decision to appoint a male or female candidate also sends out corresponding signals ex post which are received by stakeholders and shareholders and may imply a correlation in terms of corporate performance and/or strategy.

Some useful information about the quality of candidates can be deduced from their educational background and labor market experience. Screening can serve to collect further individual-specific and productivity-related information, but this entails considerable spending (money, time, and energy). In addition, far less costly group-specific information is used, based on alleged knowledge of the members of the social group to which candidates in question are assigned according to easily accessible personal characteristics (such as gender). Group-specific information per se is problematic because it implies an individual’s productivity according to the group mean and thus affects stereotypes decisions based on alleged statistical findings.

ment processes, investment behavior, and the assessment of specific female personality traits (risk preferences and social preferences). The studies also show that these assessments are subconscious, automatic, and independent of gender. Economic studies also analyze the impact of stereotypes on the labor supply side, based on experimental design. This has the advantage of allowing us to interpret the findings in the light of results of socio-psychological studies and to derive potential causal conclusions from this. Stereotypes are increasingly also identified using implicit measurement tech-


8 For an overview, see Aztam and Petrongolo “Gender and the Labor Market.”


Behavioral economics has already confirmed that human behavior is affected by biased perceptions or incorrect beliefs. People choose information, ignore it, or interpret it on the basis of their inherent beliefs and horizons of experience, subconsciously or consciously. They may even make decisions based on heuristics and allow themselves to be influenced by the context of the situation, by emotions, or by social pressure. Irrespective of the form they take, bias leads to unintended, implicit discrimination not based on rational decision-making considerations.

**What Are Stereotypes?**

Stereotypes have the important function of simplifying complex relationships. They are disseminated as a part of our beliefs, culturally accepted and widely known. They organize the social world into categories (such as woman/man, locals/foreigners) and thus run the risk of ascribing real facts to individuals, though these may in fact be generalizations based on an alleged group affiliation. This gives rise, for instance, to assertions about someone being “typically female” (buys lots of shoes) or “typically male” (football fan). Personality or physical traits, forms of behavior, or abilities can therefore be expressed as positive or negative. Stereotypes establish in early childhood simplified representations of the world in people's minds and are an important form of social knowledge, allowing instantaneous associations with a social group, subconsciously and automatically.

**Consequences of Stereotypes**

Stereotypes are not always false. However, when individuals are tarred with the brush of alleged group affiliation, they are marginalized and the individual traits, contexts, and skills ignored. They can also trigger a form of threat (stereotype threat) for those who identify themselves with the social group the stereotype relates to. Stereotypes therefore contain an inherent risk of being self-fulfilling, for example, by avoiding certain professional spheres, as studies have shown.

What also needs to be taken into account is that a gender stereotype is coincidentally harming both women and men. One example is that of the widely held stereotype of men being incapable to take over care giving roles: It forces men into the breadwinning role and restrains them from engaging in care activities, yet coincidentally imposes the care giving role on women. The decision-making power is taken away from both, men and women, because of the assumption that the woman is of course responsible for motherhood and the man for family financial support.

**Stereotypes and Their Impact in Economic Theory**

Theoretical considerations for economic models can be found in the following studies: while Dee (2014) derives the effects of a stereotype threat on individual abilities and efforts from the disutility in the educational production function, Bordalo et al (2014) use a broader approach, arguing that gender stereotypes determine individual beliefs about gender differences and how they survive. They show that gender stereotypes and—by extension, personal self-assessment—can be held responsible for the withdrawal of women from traditionally male domains.

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GENDER QUOTA

niques, which provide evidence of biased decisions. These studies relate their findings regarding gender differences in risk preferences and competitiveness to women’s underrepresentation in senior management. Only recently have studies underlined that these differences are less pronounced than was generally believed to be the case and we can assume that they are probably the result of social factors or persist because of stereotypes. Hence, gender stereotypes pose a problem — also when it comes to the selection and recruitment of the best candidates. Consequently, discussions on the pros and cons of the gender quota should ensure they take the impact of gender stereotypes into consideration.

Concerns

In some sectors of society, the introduction of a gender quota provoked a public outcry. Those against the quota have alleged that this type of legislation would be a major infringement of entrepreneurial freedom and have a negative impact on corporate profitability; women would be stigmatized as “quota women” and men would be discriminated against, and besides, according to this argument, there are too few women of the requisite caliber in the talent pool in any case.

Can a Gender Quota Compromise Company Performance?

Research findings on the effects of increased gender parity in senior management are fragmented. The subject continues to be hotly debated and many more questions remain open than clear causal correlations identified. As a rule, the economic literature uses efficiency and performance criteria to determine the effects of quotas. Despite a lack of solid evidence, this branch of the literature continues to dominate, arguably also because performance indicators are relatively easy to observe and, consequently, it is hoped that they will provide some indication of the efficiency of committee decision-making processes which cannot normally be observed.

In order to work out the impact on company performance of increased representation of women in senior management, studies draw on market- or accounting-based indicators such as Tobin’s Q or return on assets (ROA), return on equity (ROE), for example. The key international studies in the field by Ahern/Dittmar (2012) and Matsa/Miller (2013) treat the introduction of the fixed and mandatory gender quota in Norway in 2006 as a natural experiment. Both these studies conclude that the quota was successful in increasing the share of women. In the study by Ahern/Dittmar (2012), the negative effects on company performance are attributed to the significantly lower age and consequently more limited experience of the newly appointed women board members. Matsa/Miller (2013) attribute the effects to higher labor costs resulting from a smaller number of redundancies during the observation period. These findings are contrary to those of the study by Dale-Olsen et al. (2013) who concluded that the effects on company performance in general could be neglected. The study also points out that very little time has passed since the quota was introduced, making it impossible to draw reliable medium- or long-term conclusions. Possible contaminating effects of the financial crisis in 2008 can also not be ruled out. Essentially, apart from the purely mechanical effect, i.e., an increased share of women on the relevant board, it is only possible to draw reliable conclusions about the short term. Sabatier (2015)

16 For example, Implicit Association Test (IAT), for an overview of measurement techniques, see J. Dietrich et al., “Internalized Gender Stereotypes: Vary across Socioeconomic Indicators”, SOEPpapers on Multidisciplinary Panel Data Research 558 (Berlin: 2013).
26 For an overview of the indicators used by the individual studies, see, for example, J. Joecks et al., “Gender Diversity in the Boardroom and Firm Performance: What Exactly Constitutes a ‘Critical Mass’?”, Journal of Business Ethics 1 (2013): 61-72.
finds clear and positive effects regarding company performance in response to a quota system implemented in Germany. Yet the announcement of the fixed gender quota for the two top management levels resulted in an increase of the women share as well as in a substantive improvement of firm performance.39

For Germany, too, to date, it has not been possible to prove that the increased participation of women on supervisory boards has had a statistically significant general performance effect.30 Joécks et al. (2013) show that undifferentiated effects are not to be expected, either. Even before quota legislation was introduced in Germany, the authors identified that a share of women of approximately 30 percent results in a critical mass and only when this percentage is reached can we observe the favorable impact on company performance of gender diversity on supervisory boards. This corroborates the literature on the effects of group gender composition on team performance, according to which only maximum gender diversity actually results in the desired positive effects.31

Further, when analyzing the effect of a gender quota, we should not neglect to factor in the perspectives of stakeholders and shareholders (analysts, investors, lenders, etc.).32 It is possible that these individuals harbor gender stereotypes concerning perceptions of gender differences in management style, aptitude, behavior, and preferences. Based on this, the assumption is made that an increased share of women would result in less favorable decisions. Some studies have already observed that this situation has had a negative impact on company share prices, resulting in investors also losing money.33 The answer to this question otherwise still remains to be seen.34

Overall, it can be stated that it has not always been possible to eliminate methodological uncertainties associated with causal relationships in some studies.35 In order to conduct a systematic evaluation of the gender quota implemented in Germany, we would now need to invest in data quality and in a methodological concept.

Does a Gender Quota Discriminate against Men?

It is claimed that through their preferential treatment for an underrepresented group, quotas result in reverse discrimination against the group that is not targeted by the quota.36 The argument is that when women are granted access to managerial positions, the same number of more highly qualified men is rejected, despite the fact that, due to their qualification advantage, they would have been appointed to these positions in the pre-quota era. This, in turn, would result in economic inefficiency because of the decline in the level of qualifications. In order to identify this effect, we would need to determine the share of more highly qualified men who would have to be bypassed to ensure that the share of women stipulated by the quota is achieved. Balafoutas/Sutter (2012), Niederle et al. (2013), and Calsamiglia et al. (2013)37 demonstrate that this can experimentally verified since discrimination as a causal effect can be observed without examining interactions between the “gender” variable and the result variables: they establish that quotas significantly increase both the motivation of women to participate in competition and their performance. According to the authors, men are therefore not superseded by less qualified women. Both these specific studies and the literature interpret these findings as evidence that an intervention of this type does not result in reverse discrimination and certainly not in inefficiencies.38

Does the Gender Quota Reduce the Quality of the Talent Pool?

According to another frequently voiced concern, women are less qualified than men, meaning that companies would now have a less skilled pool of candidates to choose from. Obviously, on the one hand, this refers to feedback effects that impact the acquisition of human capital due to both past and anticipated discrimination.

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34 Hillman, “Board Diversity.”
according to economic theory. These effects would also explain potential differences in the skills of future generations. However, Coate/Loury (1993) show that the improved prospects of promotion created by quotas are from studies dealing with the introduction of a quota in Norway, known as a natural experiment. Methodologically, this means it is possible to identify a causal effect if there is an exogenous variation equal to the impact of the policy measure. Natural experiments are well established in economic research but require some criteria on the data that are difficult to achieve. These are the biggest challenges that can also be seen in studies on the women’s quota in Norway and can be held responsible for the sometimes very different findings: (1) The exogeneity of the variable in the share of women in the pre-quota era. This defines the intensity of the impact of the women’s quota and requires that companies do not systematically differ in unobserved characteristics. (2) Defining the timing of the announcement, since any anticipation of the introduction of a quota will lead to adaptations. (3) The choice of the control group. (4) Selection effects, since the appointment of the supervisory boards is not random. (5) Effects on the dependent variable that occur when other general conditions are altered. There are no clear mechanisms to explain the effect of the quota which makes it difficult to compare the studies. In addition, the choice of indicators of an impact has so far been inconsistently applied to only short-term effects. Further effects, such as internal wage distribution, production processes, or the structures of investment and spending have been completely ignored to date.

Requirements of a Systematic Evaluation

A systematic evaluation requires high-quality data which are currently lacking. Furthermore, there is no concept for evaluating the impact of the quota in Germany. In addition to the standard corporate performance indicators, this might also include indicators that are less susceptible to discrimination. Examples include the added value of an individual male or female employee, employee satisfaction, absence due to sickness, length of employment, internal corporate processes, structures of investment and spending, and in-house successes as well as the share of women in the various levels of the company and promotions achieved.

Longer-term data (including individual-specific characteristics such as age, education, and other committee posts) on members of the supervisory and executive boards, and the various management levels and their networks should also be made available. Only then will more detailed statements on the longer-term success of the gender quota be possible. As has been shown, field and laboratory experiments would be a useful addition because they would not only guarantee control of the randomness of the intervention, but, beyond structural indicators, could also determine targeted individual-specific behavioral and cognitive-related data.


Methodological Challenges

The most important findings currently available on the effects of a gender quota are from studies dealing with the introduction of a quota in Norway, known as a natural experiment.

There are no clear mechanisms to explain the effect of the quota which makes it difficult to compare the studies. In addition, the choice of indicators of an impact has so far been inconsistently applied to only short-term effects. Further effects, such as internal wage distribution, production processes, or the structures of investment and spending have been completely ignored to date.

1. See the overview on intergenerational transmission of inequality in S. J. Lundberg and R. Startz, "Inequality and Race: Models and Policy" (mimeo, 1998).
nomenon to accompany that of “golden trousers.” These terms are used to describe a situation where the candidate pool for supervisory boards is too small, so the recruitment process ultimately leads to individuals sitting on several boards at once, which in effect prevents the desired diversity from being achieved. Besides the increased workload this situation would then also lead to for women, multiple board membership would also impair the performance of the supervisory boards, which is a widely criticized consequence.44

According to studies by Balafoutas/Sutter (2012), Niederle et al. (2013), and Calsamiglia et al. (2013), quotas have, however, had proven positive effects on the self-selection and achievements of women: they are now more prepared to compete and demonstrate an improvement in their performance even since the announcement to introduce a quota.45 Although studies on the effects of quotas in Norway with survey datasets show that the newly appointed women are younger compared to men and also have less managerial experience,44 Bertrand et al. (2014) even find a significant increase in educational attainments of the newly appointed women.

According to Stark/Hyll (2014),46 overall, the changes in the total investment in human capital of the previously under- and overrepresented groups have not been proven to lead to welfare losses. They see their findings from a model-based theoretical line of argumentation, according to which they expect a positive net effect, in line with the observation of an increasing share of women in tertiary education in Norway and the introduction of the quota for supervisory boards there.

Is There Any Truth in the “Quota Woman” Stigma?

The general public occasionally resort to the notion of the “quota woman”,45 implying that positions reserved for men or more qualified women before the introduction of quotas will subsequently be given to less qualified and less competent women.

As has been established by research on stereotypes, for instance, on stereotype threat (see Box 2), a deterioration in performance may occur in contexts where negative stereotypes exist. As a result, the only reason why women, who are in fact perfectly competent, do not make their mark in the traditionally male-connoted positions is because they perceive themselves to be incompetent and stereotypical and expect others to do the same. The very existence of the “quota woman” stereotype in the sense of recruitment of incompetent women means that women thus stigmatized are also likely to perceive themselves as incompetent.47 In fact, behind the “quota woman” is a gender bias based on the assumption that women in general are fundamentally different to men in terms of their behavior, preferences, and management style, or are consequently less suited to managerial positions. And that, in fact, need not apply to a single woman or man. In any case, there is no empirical evidence to support the notion that “quota women” are incompetent.48 This is one of the reasons why the term “gender quota” is preferable to “women’s quota.”

Quota’s Potential to Reduce Gender Bias

The gender quota could have positive effects, particularly in the long term, if it reduces gender bias, first, by improving recruitment decisions in favor of women (labor demand side) and, second, by motivating women and encouraging them to enter fields that were previously the reserve of men (labor supply side).49 This would also inspire future generations to acquire human capital as well as professional experiences, empowering them to confidently aspire to and hold these positions. Consequently, the realized allocation of individuals resulting from the gender quota makes it possible to improve efficiency because it renders gender stereotypical assumptions about the quality of the employee superfluous.50

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43 Field experiments also demonstrate this effect on the recruitment and performance of women. See, inter alia, M. Ibañez et al., “Sorting Through Affirmative Action: Three Field Experiments in Colombia”, DICE Discussion Paper (Düsseldorf: 2015) for a discussion of a series of field experiments in Colombia, which also relate their findings to personality traits.
44 Ahern and Dittmar, “Changing of the Boards”.
Greater Share of Women Increases Visibility

The gender quota has the potential to create positive role models through its purely mechanical effect and thus to produce a signaling effect, giving rise to spillover effects in the form of increased representation of women at management level, as well as at lower levels of the company. Some studies find spillover effects in terms of the promotion prospects of women throughout the entire workforce, which also attracts more highly qualified young women entering the labor market. This could also counteract the “queen bee” phenomenon which refers to women who react to the gender bias in companies by emphasizing their traditionally masculine characteristics and cultivating a masculine management style. Since they distance themselves from other women and as a result, fail to promote or support them, the career opportunities of the entire group of women are also limited.

The signaling effect of positive role models offers an opportunity to access not only those already working for a company. Girls and young women might also feel encouraged to more frequently pursue a university education, particularly business degrees and in what are known at the STEM fields (Science, Technology, Engineering and Mathematics). This could lead to a better gender balance in certain sectors, thus reducing horizontal segregation because certain task contents would no longer be perceived as the reserve of men.

Increasing the Share of Women Reduces Risk of Being Devalued as a “Quota Woman”

Studies on Germany already show that the greater the share of men with prior experience of women on the shareholder side of supervisory boards, the more like women are also to be appointed to the supervisory board. Being confronted with counterstereotypes in this way therefore leads to the desired changes in the stereotypical beliefs relating to gender differences in management styles and skills and, in particular, the suitability of female executives. The fact that the legislation provides for a gender quota of 30 percent is in line with the study by Joecks et al. (2013) which identifies that for Germany a critical mass is reached at precisely this point.

Conclusion

The gender quota in its current form stipulates an increase in the share of women on supervisory boards of listed companies in Germany that also have employee representation on their supervisory boards (full codetermination) with the consequence that if the threshold is not fulfilled, the number of seats corresponding to this proportion will remain empty. Furthermore, it obliges companies to set themselves target quotas for the executive board and the two highest senior management levels–this applies also to companies only fulfilling one of the two criteria, (i.e., either listed or subject to codetermination). No sanctions are planned to date for non-compliance with these self-imposed quotas.

Whether the gender quota will be successful beyond the purely mechanical effect of increasing the share of women on supervisory boards depends primarily on whether companies meet the law’s stipulation on increasing the share of women. To what extent this will lead to second-round effects as well as spillover effects that go beyond easily measurable criteria of company performance is dependent on dismantling gender stereotypes.

The mechanism for achieving this would be that an increased share of women in senior management in companies, would in turn provide the opportunity for them to be perceived in this previously male-dominated sphere and for their actual abilities to be recognized, thus challenging gender stereotypes. This would bring changes in organizational culture in its wake and contribute to social and cultural transformation. Ultimately, this would also create a competitive edge because pre-

51 Fehe et al., “Förderung von Frauen.”
56 Ferreira, “Board Diversity.”
57 Gehmichen et al., “Einfluß der Aufsichtsratszusammensetzung.”
61 Dale-Olsen et al., “Diversity among Norwegian Boards.”
62 Koenig et al., “Are Leader Stereotypes Masculine?”
viously highly qualified yet unexploited talent would be tapped into.

This process can also be supported by other accompanying measures, which focus on the reconciliation of work and personal life for both women and men so as to create a level playing field. Initial steps have already been taken with the introduction of the new parental allowance known as *Elterngeld Plus* and the expansion of external childcare. Further measures such as the transition from joint income splitting for tax purposes to real family income splitting (where taxes are based on the number of own children) will have to follow. This might also include pursuing the concept of family working hours (known as *Familienarbeitszeit*) and to facilitate outsourcing household tasks.

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