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## Do Board Gender Quotas Affect Firm Value?

Evidence from California Senate Bill No. 826

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**O**n September 30, 2018, California became the first U.S. state to mandate a corporate board gender quota when Gov. Jerry Brown (D-CA) signed Senate Bill No. 826 (SB 826) into law. SB 826 requires public companies headquartered in California to have had at least one female director by the end of 2019 and at least two female directors on boards with five members (or three female directors on boards with six or more members) by the end of 2021. We provide important new evidence on the effects of board gender quotas by examining stock market reactions to announcements regarding the law, direct costs of compliance, and board adjustments post-SB 826.

SB 826 is an ideal setting to study the impact of corporate board mandates for several reasons. First, while the endogenous nature of corporate boards has historically made it difficult to fully understand the relation between board gender diversity and firm value, SB 826 creates an exogenous shock to board composition that allows us to study the impacts of gender quotas on U.S. firms. Evidence in Norway, the first country to enact a gender quota law, suggests a negative impact of mandated female representation on firm performance. Because of cultural differences and a heavier reliance on equity financing, it is not clear whether U.S. firms should experience similar effects. Second, the signing of the law by Gov. Brown

was unexpected, as he offered no public guidance on his views. The unexpected nature of the passage of SB 826 enables us to isolate the stock market reaction to an exogenous change in board structure. Third, more than 12 percent of all publicly held U.S. firms are headquartered in California, so the mandate affects a large and diverse set of firms with a combined market capitalization of over \$5 trillion. Studying the effects of SB 826 enables us to exploit cross-sectional variation in firm characteristics in multivariate tests.

We begin by building a sample of 602 public firms headquartered in California. We find that 171 (28 percent) of these firms needed to add a female director by the end of 2019 and 531 (88 percent) need to add one or more women by 2021. In total, SB 826 requires more than 1,000 additional female directors on corporate boards by 2021. We find a statistically significant and economically large stock market reaction of -1.2 percent at the announcement, suggesting that SB 826 is costly for affected firms. The magnitude of this return is robust to multiple methodologies, including tests that control for cross-correlation in announcement returns and match California firms to control firms not directly affected by SB 826. Given that California firms represent more than \$5 trillion of market value, a back-of-the-envelope calculation provides a total loss in value in excess of \$60 billion. Stock returns are decreasing in the number of female directors needed,

with a mean of -1.06 percent for firms that must add one female director by 2021 and a mean of -1.64 percent for firms that must add three female directors by 2021. Multivariate analysis implies a 0.5 percent decline in shareholder wealth for every female director that a firm is required to add by 2021.

We develop several cross-sectional predictions of the effects of SB 826. The mandate forces firms to either replace existing directors or expand board size. Regardless of which option a firm chooses, the impact of SB 826 depends on the supply of female candidates. Consequently, we examine two proxies for the supply of female directors: a dummy equal to one if there are no female CEOs in an industry and a dummy for industries with an above-median number of female directors. We find that the negative effect of SB 826 on stock returns is accentuated for firms with a restricted supply of female candidates.

If the firm chooses to replace existing directors, the negative impact of the law should be lessened in firms that can more easily do so. In our next cross-sectional tests, we use several proxies for ease of replacement, including board committee service, director age, and the presence of directors associated with venture capital (VC) funds. Overall, our results suggest that stock returns are less negative when directors are easier to replace.

Our final cross-sectional tests examine the market reaction to SB 826 based on the firm's ability to attract female directors. We predict that younger, lesser-known companies will have more difficulty attracting female candidates. Indeed, the negative effect of SB 826 is strongest for firms that are below the median age. However, this negative effect on younger firms is offset for firms associated with VC funds with a female presence. This finding is consistent with the prediction that VCs with a female presence can help young firms attract and recruit female directors.

We next estimate the direct costs of compliance for new director appointments, assuming board expansion. The median firm needs to add two female directors by 2021 at a total annual cost of \$345,636. Although the dollar cost of compliance is higher for larger firms due to higher director pay, the economic effect of the law is greater for smaller firms. When

scaled by market capitalization, additional annual director compensation averages only 0.0007 percent of market capitalization for the largest firms but 0.76 percent for the smallest firms, an increase of more than 1,000 percent.

Finally, we compare pre- and post-SB 826 board composition for 488 California firms that filed proxy statements from January to July 2019. The aggregate number of board seats held by female directors increases by 23 percent (143 board seats) from pre- to post-SB 826. This increase is greater for California firms than for control firms in other states, so it is not driven by a general trend of increasing female board representation. Of the 136 firms that add a female director, 40 percent replace male directors while 60 percent expand the board. Firms choose to expand their boards when their pre-SB 826 board size is small and choose to replace directors when their board size is large, suggesting that increasing a board above a certain size is costly.

As a follow-up exercise, we checked whether firms had a female director on their boards as of January 13, 2020. We found 16 firms (out of 650) with no female directors, indicating that nearly all firms in California are in compliance with SB 826. The firms without female directors tend to be smaller and younger than other firms in California. In addition, 8 of the 16 firms were at risk of being delisted from public stock exchanges, which would exempt them from the requirements of SB 826. Finally, we find evidence of a rush to comply with SB 826 before the year's end, as 19 firms added a female director in December 2019, compared with 5 firms that did so in November and 6 firms in October.

#### NOTE:

This research brief is based on Daniel T. Greene, Vincent J. Intintoli, and Kathleen M. Kahle, "Do Board Gender Quotas Affect Firm Value? Evidence from California Senate Bill No. 826," *Journal of Corporate Finance* 60 (February 2020), <https://doi.org/10.1016/j.jcorpfin.2019.101526>; and "California Senate Bill No. 826: List of Non-compliant Firms," January 13, 2020, working paper, [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3514041](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3514041).