Are Socially Responsible Firms Really Responsible?
Main Street Lending during the Great Recession

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Abstract

Theoretically speaking, corporate social responsibility (CSR) refers to managerial behavior that internalizes firms' material externalities on stakeholders to promote social welfare. Its assessment, however, is challenging in practice and the performance metrics may fail to reflect the underlying social impacts. We analyze whether firms that have received higher CSR ratings indeed internalize their material externality better, by examining banks' Main Street lending during the Great Recession. Banks are special in that we can evidently define their primary social role and externality, yet its actual impact is hard to assess in good times while clearly observable in bad times. We find that, contrary to what the metric suggests, banks with better ratings pulled their funds back more actively from the borrowers in need of liquidity. On the other hand, these banks spent more operating expenses pre-crisis which were curtailed afterward, suggesting a tradeoff between immediate expenditures to acquire better ratings in good times and conservation of slack to maintain the flow of credit in bad times. We also find a potential conflict among different stakeholder groups, i.e., promoting employee benefits in good times with lavish compensation might have limited capacity to serve customers and local communities in bad times. Our results suggest that as the corporate social impacts attract general attention, social welfare could be paradoxically impaired if we did not have reliable performance metrics for the social value creation.

1. Introduction

In their "Statement on the Purpose of a Corporation" issued in August 2019, the Business Roundtable (BRT), a group of major public companies' CEOs, declared that they would "commit to lead their companies for the benefits of all stakeholders – customers, employees, suppliers, communities and shareholders".[1] The media then viewed this as a landmark moment in business to move away from shareholder capitalism to stakeholder capitalism. The World Economic Forum followed by releasing a manifesto (World Economic Forum 2020) to urge companies to serve not only their shareholders, but all their stakeholders. Outside investors also started to scrutinize "environmental, social, and governance" (ESG) issues more carefully, which would further incentivize the corporate leaders to internalize their social impacts. In support of this transition, several recent studies theoretically showed that social welfare could improve when the social impacts were incorporated into managerial or investment decisions (e.g., Hart and Zingales 2017, Oehmke and Opp 2020).

Yet, after a few years since the statement issuance, critics have raised skepticism about the implementation of such stakeholderism. Bebchuk and Tallarita (2020, 2021) criticized that the BRT statement was mostly for "show" rather than actually "delivering value" to stakeholders. Tariq Fancy, ex-BlackRock executive, claimed that ESG investment in many cases just boiled down to "marketing hype".[2] Investors also raised concerns about growing risk of green-washing or social-washing.

One of the practical obstacles in implementing stakeholderism is concrete assessment of the corporations' actual social impacts (Tirole 2001, Magill, Quinzill, and Rochet 2015, Bebchuk and Tallarita 2020, and Edmans 2021), which we cannot readily identify, observe, nor quantify. We still lack a reliable metric to assess firms' performance on this dimension, and there even exists a significant variation in its performance scores for a given firm across different rating agencies (Dimson et al. 2020, Berg et al. 2020). Yet, without credible metrics, we are unable to distinguish firms that indeed care about their material social impacts, from those that merely *appear* to do so. Besides, the assessment largely depends on hard information that is self-reported, which could further distort managerial incentives (Edmans 2021). In the worst case, those assessed to be socially responsible may paradoxically be less responsible, which would bring socially undesirable outcomes if investors, consumers, or states relied on the misleading information for their decision making.

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[1] See https://www.businessroundtable.org/business-roundtable-redefines-the-purpose-of-a-corporation-to-promote-an-economy-that-serves-all-americans.

[2] See https://www.usatoday.com/story/opinion/2021/03/16/wall-street-esg-sustainable-investing-greenwashing-column/6948923002/.

We focus on banks' "main street" lending during a credit crunch to explore this possibility. In theory, we can clearly characterize corporate social responsibility (CSR) as managerial behaviors that internalize *material* externalities on stakeholders, which promotes social welfare (Tirole 2001). In practice, however, we may not be able to identify concretely what these externalities for a certain firm are, and even if we do so, assess the actual impacts on the social welfare brought by the firm's actions (i.e., creation of "social value"). Regarding this issue, commercial banking industry has several unique features: (i) we *can* distinctly define their most material externality with the largest possible impact on the social welfare; but (ii) while in good times, we *cannot* readily observe whether the management actually incorporate this aspect into the business decision, which makes their CSR assessment particularly challenging; yet, (iii) once a downturn arrives, we *can* ex-post verify whether the ex-ante assessment made during the good time was indeed valid.

Without doubt, banks' primary social role is to provide funds to the right place and *at the right time*, that is, when liquidity-constrained borrowers do not have access to outside funds elsewhere.[3] However, this attribute (i.e., mitigation of financial frictions and efficient provisioning of liquidity) mostly reveals only in bad times, while not easily observable in good times when borrowers in general are not constrained. During the boom, banks from society's perspective rather "spend" too much, instead setting aside slack for possible downturns. Once the downturn arrives, banks now tend to exert significant social costs by (overly) pulling back their credit from the real economy, that is, causing a "credit crunch" (Bernanke and Lown 1991). The consequent social cost turned out to be so enormous that the policymakers after the 2007-2008 Global Financial Crisis (GFC) introduced various "macroprudential" rules, to enforce banks to hoard more slack in good times so that they can maintain their flow of credit in case of downturns and mitigate "procyclicality", which would promote social welfare (Hanson, Kashyap and Stein 2011).

However, the regulatory framework largely missed this macroprudential perspective prior to the crisis, and there had been a gap between the privately optimal actions for banks and the socially desirable ones. In this context, we can first identify banks' material externality (i.e., credit provision to the right place at the right time), and also observe whether some firms internalize it better than others (i.e., more "socially responsible" by extending more funds to illiquid borrowers), *conditioning on* a realization of certain events (i.e., credit crunch).[4] On the other hand, such attribute, albeit is the

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[3] Unlike other industries, the typical supply chain concerns are not applicable to commercial banking. They are also criticized for paying rather "excessive" compensation to their staffs during a boom. The environmental issues, particularly regarding banking activities, e.g., climate risks, green or ESG loans/bonds, were not perceived as urgent during our sample period.

[4] The following quote by Robert Frost nicely describes the Main Street's long-lasting complaint about banks' social *ir*responsibility: "*A bank is a place where they lend you an umbrella in fair weather and ask for it back when it begins to rain.*"

most material one, is not observable during a boom when borrowers do not have difficulty in accessing liquidity, which imposes more challenges in measuring their CSR ex ante. Therefore, CSR assessment for banks in good times might mostly reflect non-material yet observable aspects and, those that invest more in these unessential dimensions may end up receiving better CSR ratings, even if they set aside less slack to rest on in times of necessity.[5]

We hence argue that theoretically speaking, banks that better internalize their material externalities (and thus more socially responsible) should pull back fewer loans from local economies (i.e., "Main Street") during a credit crunch. We then empirically analyze if those that have received higher CSR ratings indeed care more about their social impacts, by examining banks' small business lending during the Great Recession. We focus on small business loans because (i) unlike larger firms, these small borrowers do not have access to liquidity elsewhere when their local banks refuse to lend, and (ii) we can empirically observe borrower locations that are useful to identify the credit supply effect. Interestingly, we find the answer to be the opposite – lenders that had received the better ratings and were supposed to be more "socially responsible" actually stayed further away from their local small business borrowers' liquidity problems.

We collect banks' CSR performance information from the KLD Stats database, and small business lending from Community Reinvestment Act (CRA) data. Following the conventional approach (e.g., Deng et al. 2013 and Albuquerque et al. 2019), we calculate banks' overall CSR scores[6] as of 2006, right before the Great Recession started, and compare the trends in small business lending for banks with positive scores (59 *high-CSR* banks) and those with non-positive scores (107 *low-CSR* banks), before and during the Great Recession. As CRA reports borrower locations, we collect MSA-bank level origination information, and construct a yearly panel data matched with bank characteristics from the FR Y-9C reports.

In order to identify the credit supply effect, we include MSA*year fixed effects in our difference-in-differences regression. This absorbs changes in local loan demand (Khwaja and Mian 2008), so that we can compare lending patterns of different banks in the same local market for a given year. Figure 1 presents the trend in yearly small business loan (*SBL*) growth rates, separately for the two

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[5] In discussing the limitation of the current ESG metrics, Porter, Serafeim, and Kramer (2019) criticize that *"(t)he carbon footprint of a bank, for example, is not material* to a bank's economic performance, nor would reducing its footprint materially affect global carbon emissions. In contrast, banks' issuance of subprime loans that customers were unable to repay had devastating social and financial consequences. Yet *ESG reporting gave banks credit for the former and missed the latter altogether,* in part because the voluntary and reputation-focused nature of sustainability reports tends to leave out bad news. *Such broad and upbeat ESG reporting may make investors and consumers feel good* by encouraging corporate window dressing, but it *distracts from incentivizing and enabling companies to deliver greater social impact on the issues most central to their businesses*."

[6] Porter, Serafeim, and Kramer (2019) document that many ESG-oriented investors simply use firms' *overall* performance for screening, (erroneously) assuming better scores across all ESG indicators indicate more prudent and farsighted management.

groups of banks. In Panel B, we plot the deviations from the MSA-level yearly averages to account for the demand changes, where we can clearly observe a sharper decline of local lending by *high-CSR* banks after 2007, contrary to what their CSR rating as of 2006 suggests.

Our regression results also confirm this pattern. The diff-in-diff estimation, comparing pre- (2003-06) and post-treatment (2007-10), suggests *high-CSR* banks decreased their *SBL* growth rates further by about 30 percentage points. The estimate barely changes when we exclude small "community" banks with assets smaller than $10 billion, or control for different business models and the asset-size effect. Our finding is also robust when we only examine the community bank subsample.

Note that, in good times, "socially responsible" banks would need to set aside more slack to maintain the flow of credit in bad times. While it is possible that some banks, during the downturn, pulled back their loans more so as to avoid their own failures with the slack exhausted, this still implies that these banks had not been socially responsible ex ante. Nonetheless, given the significant social benefits of avoiding bank failures, we re-estimate our main regression excluding "weak" (thinly capitalized) banks, or the banking crisis period of 2007 and 2008, and have the same results. In sum, banks that were perceived to be more socially responsible paradoxically pulled back their funds from local borrowers more actively, particularly in times of necessity.

We next explore why we observe this seemingly opposite relation. It cannot be the case that the ratings were simply too noisy, because we would then have found a null result. We begin by ruling out several confounding channels that could result in the same empirical pattern. One possibility is that the crisis somehow affected the two groups differently. For instance, larger banks faced tougher regulatory requirements after the crisis, and *high-CSR* banks are on average larger than *low-CSR* banks, although our results are robust when we only use the subsamples with the similar asset sizes. Alternatively, *high-CSR* banks might have been financial weaker to begin with, or made more losses during the crisis, which limits their credit supply. Our analysis suggests that these channels do not seem to explain the difference in lending for the two groups.

We then argue that this paradoxical relation emerged because those that spent rather extravagantly during the boom prior to the crisis had received better CSR scores, when they actually kept smaller slack to rest on in times of necessity. That is, *high-CSR* banks had spent more resources to earn the better rating ex ante, which subsequently limited their lending capacity ex post. Indeed, they spent more non-interest (i.e., operating) expenses than *low-CSR* banks pre-treatment, but squeezed them more post-treatment, implying they had limited slack during this period. One interpretation is that these banks considered CSR as a risk management tool ("strategic CSR") against, e.g., reputational, regulatory or compliance risks, and there was a tradeoff between better ex-ante risk management and

conservation of (operational or financial) ex-post slack.[7] Here, the former might have promoted ex-ante shareholder benefits, but that actually came at the expense of ex-post social benefits.

We also explore a possible conflict between serving different stakeholders with limited resource. An action that intends to increase the welfare of certain stakeholders may yet reduce that of other stakeholders, which increases or decreases the social welfare depending on the opportunity costs and the weights among them. In our case, there might exist a tradeoff between providing more up-front employee benefits during a boom (which is socially undesirable[8]) and leaving more slacks for possible downturns (which is socially desirable). Our *high-CSR* banks indeed had higher ratings regarding *Employee Relations*, and spent more on salaries and benefits. They hence might have prioritized delivering on obligations to these stakeholders during a boom, which limited lending capacity particularly when the financial constraint tightened. Since the metric only reflects *realized* stakeholder benefits, those that spend more on their employees may receive better ratings ex-ante, even if they choose to leave out unrealized and thus unquantifiable, yet more material externalities. Indeed, we have the similar diff-in-diff results when we sort banks only using the information under the *Employee Relations* category, while the effect was less pronounced when sorting with the other categories.

Our findings suggest the importance of definitive and reliable metrics to assess firms' social impacts, for inducing desirable corporate behaviors and promoting social welfare. Admittedly, the 2006 metric we adopt is rather crude and less informative than those available today. However, we do not think this is necessarily a limitation for our purpose; rather, it would help us present the possible downside that might arise when we could not readily assess the social impacts of the business activities. Still, with the outbreak of Covid-19, "social washing" is becoming a growing risk to the ESG investors as they put a greater emphasis on "S", since these issues are much harder to assess even compared to environmental issues.[9] Our results imply that there may arise a tension between the welfare of different stakeholders, but in many cases it is not obvious what the implicit opportunity costs are nor which weights to assign between them to assess the net social impact. Besides, it is difficult to reflect unobservable or unrealized features. When firms attempt to exploit this limitation, it may lead to erroneous assessment, i.e., those that focus more on non-material externalities could be

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[7] Rampini and Viswanathan (2010) and Rampini, Sufi, and Viswanathan (2014) find a trade-off between investing in risk management and financing for new projects, which becomes more pronounced when firms are financially constrained. Relatedly, Xu and Kim (2021) find that firms actively trade off the opportunity cost of abating carbon emissions against potential legal risks.

[8] Banks had been criticized for paying "lavish" compensation during a boom ignoring downside risks, which led the regulators to introduce clawback clauses after the GFC.

[9] See, e.g., https://www.bloomberg.com/news/articles/2020-04-09/-social-washing-is-becoming-growing-headache-for-esg-investors?sref=qSOSqDIq).

perceived as more socially responsible. If investor, consumer, or regulatory decisions are made based on the misleading metrics, we may end up subsidizing the wrong type, which would distort resource allocation and paradoxically damage the social welfare.[10]

2. Theoretical Background

2.1. Stakeholder theory, CSR, and its assessment

In his influential *New York Times* article, Friedman (1970) claims that the only social responsibility of business is to increase its profits accruing to shareholders. While this shareholder theory has been widely perceived as a justification of shareholder primacy, it does not imply that externalities arising from corporate activities are irrelevant. Rather, it suggests an efficient division of labor between firms and states. The former exclusively focus on delivering more returns to shareholders, who themselves can then take actions based on their respective social preference. The latter devise relevant policies and institutions to address market failures. This dichotomy is socially desirable.

However, the states do not always implement the optimal rules and measures to address material externalities exerted by the firms. The forementioned dichotomy then breaks down, and the social welfare would decrease if the firms simply ignored their social impacts. In such cases, the firms are not excused from solely pursuing profits. The social welfare could increase if the firms internalized externalities on their stakeholders, i.e., CSR that goes beyond the legal or regulatory requirements of the economy becomes relevant (Tirole 2001, Benabou and Tirole 2010, Kitzmueeler and Shimshack 2012).

Stakeholder theory therefore argues that firms should consider their material impacts on relevant stakeholders when making managerial decisions. Importantly, CSR in this context does not imply that firms should take into account *every* possible impact on *any* stakeholders when making managerial decisions. Hart and Zingales (2017) argue that only externalities that are inseparable from the firms' production decision should be considered because, otherwise, the individuals (i.e., shareholders) themselves can reverse the inefficiencies. Relatedly, Edmans (2020) proposes the "principle of materiality," i.e., management should primarily address externalities to stakeholders that

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[10] The European Securities and Markets Authority (ESMA), the EU's securities markets regulator, recently called for legislative action on ESG assessment tools facing the increased risks of greenwashing, capital misallocation, and products mis-selling (European Securities and Markets Authority 2021).

are most material to the firm's business.[11] The Global Reporting Initiative (GRI), which provides the world's most widely used guidelines for sustainability reporting, in their 2020 proposal of GRI 103 defines material topics for assessing firms' social impacts as those "that reflect the organization's *most significant* impacts on the economy, environment, and people, including impacts on human rights." Magill et al., (2015) similarly claim to limit the set of stakeholders to those closely affected, and let the states resolve the externalities that affect widely dispersed agents in the economy. In this context, certain "CSR" actions, taking opportunity costs into account, might actually result in a net decrease in the social welfare, and are not desirable. Yet, in practice, firms are still "judged on their *overall aggregate performance across all indicators,* equally weighted, *rather than on the most salient issues* for their particular businesses", even if some factors "are not material to the performance of a particular business, nor do they highlight areas where the business has the greatest impact on society" (Porter, Serafeim, Kramer 2019).

While the benefit of CSR defined as a net increase in the social welfare is conceptually straightforward to formalize, the actual assessment of the social impact that results from CSR is not evident. As discussed above, certain externalities are more material and thus to be prioritized, which is particularly important when the opportunity costs for choosing one option over another matter with limited available resources. In order to evaluate the social impact, therefore, we first need to identify which stakeholder groups are affected and by how much, but this is hard to quantify. An action that intends to increase welfare of certain stakeholders may yet reduce that of other stakeholders, so we would also need to assign the proper weights among them to assess the net impact. Since these tasks in practice cannot be reliably executed, critics have raised concerns about implementation of stakeholderism, i.e., placing emphasis on the stakeholder benefits and social impacts could adversely exacerbate agency problems due to the lack of accountability (Tirole 2001, Magill et al. 2015, Bebchuck and Tallarita 2020, 2021).

When firms adopted the stakeholder perspective, they could become less attractive to investors because they might not maximize financial returns to those investors, which would make these firms not viable in the long run.[12] However, this will not be the case when some investors also value social impacts (Hart and Zingales 2017), since these "socially responsible" investors should be willing to

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[11] For instance, charitable donations and corporate philanthropy, which Friedman primarily criticized, would not qualify as CSR activity that addresses firms' material externalities.

[12] "Doing well by doing good" view (Benabou and Tirole 2010, Edmans 2020), on the other hand, suggests that firms can still increase their returns to investors even when incorporating their social impacts in managerial decisions. Bebchuck and Tallarita (2020), however, argue that this approach is essentially another manifestation of the traditional model that focuses on shareholder interests, rather than stakeholderism that aims at promoting the well-being of stakeholders.

invest in these firms to complement more financially oriented investors, which could also improve social welfare (Oehmke and Opp 2020). Other relevant stakeholders, e.g., employees, local communities, customers, or states, may similarly appreciate the firms' social value creation, which would also make them viable to promote social welfare consequently.

However, all the arguments above implicitly assume that one *can* readily distinguish socially responsible firms from irresponsible ones. If we were unable to identify the former from the latter with no reliable assessment metric,[13] then the former might not be viable in the long run again since the social value they create would fail to be appreciated. Policymakers, corporate leaders, and market participants take this problem seriously, and are urging to develop reliable standards and frameworks to assess the social values (e.g., European Union 2021). Yet, even for the same firm, the current performance scores differ significantly across the major rating providers (Dimson et al. 2020, Berg et al. 2020, Gibson et al. 2020), making it challenging to identify the "good" firms.

This limitation can become more problematic since it may distort firms' incentives (Edmans 2021). The prevailing metrics primarily analyze self-reported, hard information on selected topics. These topics might indeed relate to a firm's material externalities on its relevant stakeholders, but it could rather reflect immaterial issues not directly related to the firm's main business. If the former attribute is harder to observe and assess while the latter is more conspicuous, the firms may attempt to spend more resources to promote the latter at the expense of the former. Although this would lead to socially undesirable outcomes, the rating agency ld provide better assessment for these firms when they should actually be underappreciated. As we discuss below, this issue would be more pronounced with commercial banks whose most material social externality – provision of funds to the right place *at the right time* – is not observable in good times, but only so in bad times.

2.2. Banks social responsibility and hypothesis development

Regarding corporate social impacts, banks are special in various ways. As an intermediary, a bank's primary role is to take in funds, pool them, and lend to those who need them. In this process, it creates social values through a transformation of maturity and liquidity (Diamond and Dybvig 1983) and generation of information (Diamond 1984), and retains part of the value added as corporate profits. Its liquidity provision may not be easily substituted, particularly for borrowers facing financial frictions that hamper their direct access to funding markets. Hence, firms and households would be

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[13] For instance, Elmalt, Igan, and Kirti (2021) find little evidence to suggest that higher ESG metrics are associated with reduced emission growth.

significantly impacted when banks became constrained and reluctant to lend, and the disruptions of credit flows could even lead to failures of otherwise solvent borrowers, exerting substantial negative externalities (Bernanke and Lown 1991). As the maturity transformation inevitably exposes banks to risks of bank runs (Diamond and Dybvig 1983), states in pursuit of social benefits provide a public protection of deposits to maintain stable provision of funds to the real economy.

Consequently, corporate governance of banks is rather unique; from social perspective, it is *evidently* suboptimal for their management to solely focus on shareholders' interests (see, e.g., Macey and O'Hara 2003, 2016, Bebchuk and Spamann 2009, Becht, Bolton, and Röell 2011, and Laeven 2013).[14] By the nature of their business model, banks are highly levered yet own opaque assets (Morgan 2002), which makes them susceptible to asset substitution (Jensen and Meckling 1976). Creditors would normally monitor such agency conflict, but for banks, the public protection of deposits weakens the market discipline. Therefore, shareholder value maximization would naturally result in excessive risk-taking of banks (Fahlenbrach and Stulz 2011, Beltratti and Stulz 2012), while their distress would impose substantial social costs. Accordingly, states regulate bank soundness heavily and supervise their activities closely to enforce banks to be more "responsible", unlike with other industries. Traditionally, so called "microprudential" regulations have aimed at addressing this misaligned incentive of bank shareholders (or management) and preventing bank failures, to enhance social welfare.

Following the Global Financial Crisis of 2007-2008, there arose a general consensus among policymakers and researchers to re-orient the regulatory framework towards a "macroprudential" perspective. During the GFC and the subsequent recession, banks, with a substantial decrease in their risk appetite, significantly curtailed the provision of credit to the real economy (see, e.g., Ivashina and Scharstein 2010). While this might have been a privately optimal decision from an individual bank's perspective, the consequent credit crunch transmitted the financial shock to the real economy and deepened the recession (i.e., amplifying "procyclicality"), which resulted in significant social costs (see, e.g., Hanson, Kashyap and Stein 2011, Chodorow-Reich 2014).

To alleviate the negative externalities that would arise in bad times and to stay "socially responsible", banks were supposed to set aside sufficient slack during good times to rest on in bad times, which many of them apparently did not. The social costs of such bank actions turned out to be so enormous to trigger regulatory reforms to address the gap between the banks' privately optimal

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[14] Macey and O'Hara (2016) thereby propose to broaden the fiduciary duties of bank directors to incorporate the social impacts. Several countries (e.g., Korea, Japan) explicitly refer to banks' public nature in their banking acts.

decisions and socially desirable choices. Various "macroprudential" tools, e.g., counter-cyclical capital buffers (CCyB), were introduced under the Basel III, to enforce banks to hoard larger slack in good times, so as to maintain the flow of credit in bad times (Hanson, Kashyap, and Stein 2011, Jimenez, Ongena, Peydro, and Saurina 2017). Facing the Covid-19 pandemic, these new rules helped the banks to stay sound and avoid a credit crunch. The states also intervened actively and provided direct assistance to the liquidity constrained borrowers (e.g., Paycheck Protection Program (PPP) in the U.S.) to alleviate the social costs, which left a smaller room for the banks' voluntary "social responsibility" to address their social impacts. However, these public interventions were largely missing during the Great Recession.

Therefore, theoretically speaking, banks that are more socially responsible – i.e., better internalizing their material externalities on the stakeholders – should have provided more funds to constrained borrowers during the Great Recession. Or, from the ex-ante perspective, they should have chosen to put aside greater slack during the boom, so as to sustain more credit provisions in the downturn. If the CSR scores, measured right before the GFC, did accurately capture this attribute, we would have the following prediction:

Hypothesis 1 *A bank that had received a higher CSR score lent more to its local borrowers during the Great Recession.*

Admittedly, there exist other externalities that banks may exert on their stakeholders. However, considering their impacts on social welfare, other possible ones (that are not yet addressed by the state interventions) are rather immaterial to their main business compared to the externality from the provision of funds to the right place at the right time, which is the reason why the post-crisis regulatory reforms were introduced to enforce banks to better internalize it. Banks have fewer supply chain issues compared to firms in other industries. Environmental issues such as climate risks were not considered as urgent prior to the GFC. They were also criticized for paying rather lavish compensation to their staffs during the boom, without caring about the downside risks.

Despite its materiality, this attribute – whether a bank would provide sufficient funds to its liquidity constrained borrowers – is hard to assess in good times. GFC happened rather abruptly after a credit boom, when borrowers in general could have easy access to credit. Prudential regulation and supervision then mainly aimed at assuring a minimum level of bank soundness (i.e., financial leverage) to prevent bank failures, but they did not scrutinize whether banks put aside sufficient resources to

rest on in aggregate downturns. During the credit boom, therefore, this socially desirable attribute is not easily assessable; only once the downturn comes, we can learn about it from the banks' ex-post reactions. Hence, the CSR scores we observe prior to GFC may mostly reflect issues that are only tangentially related to banks' material externalities, or immaterial ones such as charitable giving and philanthropy (Masulis and Reza 2015). If banks spent more resources in these aspects, intentionally or not, that would help to earn a high CSR score in good times; however, they might be forced to squeeze their liquidity provisions to a greater degree later in bad times, due to the higher operating leverage that constrained their lending capacity further. The states did scrutinize their banks' financial leverage for the social benefits, but their operating leverage was largely unchecked. In that case, we would have the opposite prediction.

Hypothesis 1' A bank that had received a higher CSR score paradoxically lent less to its local borrowers during the Great Recession. This bank had spent more resources in good times than those with a lower CSR score, which subsequently constrained its capacity further in bad times.

3. Data

We combine several datasets. We collect firms' CSR information from the KLD Stats database.[15] KLD evaluates firm's social responsibility performance along the following seven categories: environment, community, human rights, employee relations, diversity, product, and governance. Each category includes a number of criteria comprising both strengthens (i.e., positive impact) and concerns (i.e., negative impact), and KLD makes a binary evaluation (1 if yes, 0 if no) for each criterion. See Appendix for the list of specific criteria.

As with prior studies, we exclude governance category to focus on non-governance aspects of CSR and construct a firm's overall CSR score (i.e., "ES" scores) as follows (see, e.g., Deng et al. 2013, Servaes and Tamayo 2013 and Albuquerque et al. 2019). We first calculate a normalized strengths score, ranging from 0 to 1, by dividing the sum of strengths scores across all six categories by the number of available strengths indicator. We similarly calculate a normalized concerns score, again ranging from 0 to 1. We then subtract the normalized concerns score from the normalized strengths score, to construct the overall *CSR score* for that firm, which ranges from -1 (with more

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[15] The database is now known as MSCI KLD ESG Stats, following MSCI's acquisition in 2010.

negative impacts) to 1 (with more positive impacts).[16] We then divide banks into two groups, *high-CSR* with positive overall scores, and *low-CSR* with non-positive overall scores. For the 2006 year-end assessment, KLD provides CSR scores of 166 banks. Among them, 59 banks are included in the *high-CSR* group and 107 banks are included in the *low-CSR* group.

KLD database has two advantages for the purpose of our empirical study. First, there were not many ESG rating agencies in the early 2000s, as we do now. KLD then provided the broadest coverage,[17] and is used in the majority of academic studies examining the determinants and effects of CSR in this early period (e.g., Godfrey, Merrill, and Hansen 2009, Hong and Kostovetsky 2012, Deng, Kang, and Low 2013, Servaes and Tamayo 2013, Krüger 2015, Khan et al. 2016, Lins et al. 2017). Second, a core purpose of KLD was to "influence corporate behavior toward a more just and sustainable world", that is, providing information that would bring positive impacts to promote social welfare, rather than helping investors to earn a higher financial return (i.e., with "financial materiality").[18] Hence, a higher KLD score *is supposed to* identify firms that better internalize their material externalities, regardless of whether that would ultimately lead to better financial returns or not.

We use the Federal Financial Institutions Examination Council's (FFIEC) Community Reinvestment Act (CRA) disclosure data from 2003 through 2010 to analyze patterns in small business lending. The CRA is a federal law enacted in 1977 to "encourage" depository institutions to help meet the needs of borrowers in all segments of their communities including low- and moderate-income neighborhoods, which suggests that the policymakers consider greater originations of the CRA loans to be socially desirable. The CRA data include small business lending whose loan amounts less than $1 million, reported by banks with more than $1 billion in assets. This loan-level data provides information about the year of origination, loan size, lender, and most importantly, borrower location so that we can compare different banks within the same local area for the identification of the supply effect.

We collect information on other bank (holding company) characteristics that we control for in our analysis, from the Federal Reserve's Y-9C reports between 2002 and 2010. Since the CSR scores and small business loan originations are assessed at the year end, we use the Q4 reports, and construct the

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[16] Our empirical results do not change when we instead use the total number of *both* strengths and concerns indicators as the denominator, and the sum of strengths subtracted by the sum of concerns as the numerator to calculate the overall score (i.e., the robustness analysis in Albuquerque et al. 2019).

[17] For instance, ASSET4, one of the largest database for recent ESG information, assessed less than 30 U.S. banks in 2006.

[18] See http://web.archive.org/web/20050403203540/http://www.kld.com:80/about/mission.html.

following variables: *Size* defined by a bank's total assets in US dollars; *Liquid Assets* defined by the ratio of liquid assets (cash and balances, securities holding and fed funds sold and securities purchased) to total assets; *RE Loans* defined by the ratio of real estate loans to total loans; *CI Loans* defined by the ratio of C&I loans to total loans; *Non-performing Loans* defined by the ratio of non-performing loans to total loans; *Capital* defined by the ratio of a bank's tier 1 capital to total risk-weighted assets; *Loan-to-Deposits* defined by the ratio of total loans to total deposits; *ROA* defined by the ratio of net income to total assets.

For each year, we aggregate the CRA data to the bank-MSA level, and merge with the bank-characteristics and the CSR scores to construct the panel data. We exclude banks with loan to asset ratio lower than 0.25 and deposit to asset ratio lower than 0.25, to focus on commercial banks. All variables are winsorized at the top and bottom 1% of the distribution and the final sample consists of 31,185 bank-MSA-year observations.

Table 1 reports summary statistics. Panel A compares the balance sheet characteristics of the two groups, *high-* and *low-CSR* banks. As one can see, *high-CSR* banks are significantly larger in assets, have slightly fewer real estate loans but more commercial and industrial loans. One possibility is that the larger firms simply had more to disclose, and the rating firms relied on these voluntary inputs for the assessment. Bank size can also correlate with other factors that affect lending, and we address these issues in the empirical analyses.

Panel B presents the decomposition of the CSR scores for the two groups by the CSR categories: *Environment, Community, Human Rights, Employee Relations, Diversity,* and *Products*.[19] *high-CSR* (*low-CSR*) banks have positive (negative) net scores with *Community, Employee Relations,* and *Diversity*, and the difference between the two groups is statistically significant in all three categories. The two groups do not differ significantly with *Environment* and *Human Rights*; no bank received positive net score with *Products*. Comparing the aggregate overall scores that we use to define the *high-* and *low-CSR* banks, the former has the mean of 0.053 and the standard deviation of 0.005, and the latter has the mean of -0.028 and the standard deviation of 0.003.

[Table 1 here]

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[19] See Appendix Table for the list of specific topics assessed in each category.

4. Empirical Findings

4.1 Difference-in-differences estimation

We begin with visual inspection of the trend in banks' small business lending. Figure 1 presents the time series of yearly small business loan growth, for the groups of *high-* and *low-CSR* banks. Panel A is based on the bank-level averages. While both groups of banks decreased their loans to small business borrowers after 2007, *high-CSR* banks reduced their lending more compared to *low-CSR* banks. The difference, however, is not too distinct and we cannot infer whether this is driven by the banks' active decisions to pull back loans or simply reflecting differential loan demand they faced.

[Figure 1 here]

To account for the variation in local demand, we next examine the loan growths at MSA-bank level. For each MSA-bank level yearly growth, we subtract the average loan growth for the MSA in that year to absorb the MSA level variation. This leaves us the deviation from the local average for each bank in each MSA, and we plot their averages for the two groups in Panel B.

With demand controlled, the difference between the two groups becomes more distinct. The two trends were almost parallel prior to the crisis, but *high-CSR* banks' lending decreased much more sharply as the crisis unfolded. The figure suggests that those supposedly "responsible" banks actually cut back their lending to local borrowers more, when the latter were in need of liquidity.

We now implement difference-in-differences estimation to formally assess this effect. Specifically, we estimate the following equation:

$$LoanGrowth_{i,m,t} = \alpha_i + \alpha_{m,t} + \beta\, CSR_i * post_t + \gamma\, X_{i,t-1} + \varepsilon_{i,m,t} \tag{1}$$

where $post_t$ equals 1 for the years from 2007 to 2010, and 0 from 2003 to 2006. *CSR$_i$* is a dummy variable for the *high-CSR* banks, which equals 1 if bank i's overall *CSR score* in 2006 is positive, and 0 otherwise. α_i denotes bank fixed effects to control for time-invariant bank characteristics, and $X_{i,t-1}$ denotes the matrix of bank characteristics lagged by 1 year. The bank controls include the natural logarithms of *Size*, *Liquid Assets, RE Loans, CI Loans, Non-performing Loans, Capital, Loan-to-Deposits,* and *1+ROA*. We control banks' holdings of liquid assets, loan quality, earning,

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capitalization, and loan-to-deposits ratio since these affect their lending capacity. Banks' real estate loans to total loans and C&I loans to total loans ratios account for changes in the business focus within bank.

Our coefficient of interest is β, the coefficient on the interaction between CSR_i and $post_t$. We include MSA*year fixed effects, denoted as $\alpha_{m,t}$, to control for local economic conditions at the MSA level. This term absorbs variations in local demand to identify the credit supply effect (Khwaja and Mian 2008), so that β of our MSA-bank level regression can capture differential lending behaviors between the two groups within the same local market. All standard errors are clustered at the bank level.

[Table 2 here]

Table 2 reports the estimation results. The diff-in-diff estimate in column 1 suggests that small business loan growths of the *high-CSR* banks decreased by approximately 31 percentage points more compared to the *low-CSR* banks, relative to their pre-treatment behaviors. The estimate is statistically significant at the 1% level.

Recall, from Section 3, that the *high-CSR* banks are on average larger in assets than the *low-CSR* banks. This size difference can bias our results due to, for instance, the following confounders. First, larger banks faced stricter post-crisis regulations, which may have limited their lending capacity further. Second, large banks' business models can differ from small banks, and thus their damages from or responses to the crisis also differed.

We address this size effect in various ways, roughly classified as either (i) adding relevant controls, or (ii) using subsamples. We first add the following controls to mitigate the confounding effects. To account for the regulation effects, we utilize two asset-size thresholds for regulatory requirements explicitly referred in the Dodd-Frank Act, i.e., $10 billion for "community banks" and $50 billion for systemically important financial institutions ("SIFIs"). Regulatory burdens increase discretely as a bank' total assets exceed these thresholds (Hou and Warusawitharana 2018).[20] We hence create two dummy variables for banks with the average asset size below $10 billion and $50 billion, and interact them with *post_t*. We then include these additional terms in equation (1) to account for different

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[20] Banks that exceed $10 billion in assets are subject to e.g., oversight by the Consumer Financial Protection Bureau, and need to implement company-run stress tests. Those larger than $50 billion are subject to e.g., regulatory stress tests and liquidity regulations (e.g., liquidity coverage ratio (LCR)).

regulatory effects due to bank sizes. The diff-in-diff estimate, reported in column 2, turned out to be slightly larger in magnitude than that in column 1, still significant at the 1 percent level.

We also control for differential impacts of the crisis on banks with different business models. We use banks' non-interest income to total income ratio in 2006, right before the treatment, to capture the business model (Stiroh 2004, 2006), and interact them with $post_t$. Again, we add this term in equation (1) and report the estimates in column 3. We have the same result as before. Lastly, we interact the bank's asset size in 2006 with $post_t$ and add this control to absorb *any* monotonic size effects. The diff-in-diff estimate, reported in column 4, is similar in economic magnitude, but statistically significant only at the 10% level with the *t*-statistics of -1.96. On the other hand, the size effect (i.e., the coefficient on the interaction of bank size and *post*) is neither economically nor statistically significant.

For further verification of the robustness, we first exclude all small "community" banks with asset size below $10 billion. We then repeat the estimations in Panel A only based on this subset of large banks, and report the results in Panel B.[21] We have 20 *high-CSR* banks and 26 *low-CSR* banks in this subsample, and the standard errors are generally larger with the decrease in the sample size. The estimates are similar to those with the full sample, albeit slightly less significant statistically. The estimate in column 4, controlling the interaction of bank assets and the *post* dummy, is statistically insignificant with the *t*-statistics of -1.68, although it is slightly larger in magnitude (-0.34) than that in Panel A with the full sample (-0.31).

Alternatively, we only analyze the subset of small banks with asset size below $10 billion. In our sample, we have 120 such small banks and these community banks operate mostly in their local markets. As such, our MSA-bank level analysis is not appropriate because we generally have very few banks within a given MSA. We therefore estimate state-bank level regression, where MSA-year fixed effects are replaced by state-year fixed effects. Panel C reports the diff-in-diff estimates for this subsample analysis, where we find the robust result.

While Panel B of Figure 1 suggests that the parallel trends assumption is not violated, we next confirm its validity by estimating the following equation:

$$LoanGrowth_{i,m,t} = \alpha_i + \alpha_{m,t} + \sum_{t \neq 2006} \beta_t * CSR_i * year_t + \gamma\, X_{i,t-1} + \varepsilon_{i,m,t} \qquad (2)$$

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[21] As we exclusively use banks bigger than $10 billion in assets, we only include the interaction term with $50 billion threshold in column 2.

where $year_t$ is a dummy variable for each calendar year excluding 2006, the base-year. Figure 2 plots the estimates of β_t along with the 90% confidence intervals. As we can see, the estimates for the interaction term are not statistically different from 0 prior to the crisis. However, they are significantly negative after 2007, indicating that the *high-CSR* banks reduced their loans to small business borrowers compared to those that received the worse ratings.

[Figure 2 here]

4.2 Other confounders – soundness

Banks' *CSR scores* prior to the treatment might have been related to other factors other than the asset size, which affected their post-treatment lending behaviors. For instance, if the *high-CSR* banks had somehow been more severely damaged during the financial crisis, this could have limited their lending capacity. Alternatively, they might simply have been financially weaker at the onset of the crisis, which would have also affected their lending afterwards.

To verify whether those were the cases, we next look closely into the two groups' "soundness" characteristics including *Capital, Liquid Assets, Non-performing Loans,* and *ROA,* which we used as controls in our main regression. Indeed, the supervisory regulators paid close attention on these factors as part of their "CAMELS" assessment, while their focus was more on the "lower bound" rather than "slack".[22] Table 3 reports the statistics of these ratios for the two groups, distinguishing pre- and post-treatment. We also test the significance of between-group differences, within-group differences, and difference-in-differences. Panel A is based on all sample banks, Panel B is based on the large bank subsample (greater than $10 billion in assets), and Panel C is based on the small bank subsample (below $10 billion in assets).

[Table 3 here]

Table 3 indicates that the *high-CSR* banks were not particularly weaker prior to the crisis. Their liquid asset ratio was on average lower (by 1.6 percentage points and significant at the 10% level)

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[22] CAMELS indicates capital adequacy, asset quality, management, earnings, liquidity, and sensitivity to market risk.

and non-performing loan ratio was higher (by 0.2 percentage points and significant at the 1% level), but this difference disappears when we only compare large banks in Panel B. Besides, the differences are not economically significant, particularly for the non-performing ratio. Looking at the within-group differences comparing pre- versus post-treatment, as well as the difference in these differences, it does not seem that the *high-CSR* banks were more severely damaged by the crisis – if anything, the *low-CSR* banks had a significantly larger decrease in their liquid asset ratio, both statistically and economically. An alternative interpretation of this difference is that *low-CSR* banks were more willing to consume their cash buffers during the crisis, while *high-CSR* banks were more reluctant to do so. This argument coincides with the lending patterns we find in the previous section.

Overall, the results in Table 3 suggest that the soundness factors did not drive the different lending behaviors we observed previously. For the robustness, we explicitly control for the differential responses among banks with different fragilities by adding the interaction term of $post_t$ and each of the four soundness variables as of 2006 in equation (1). The estimation results are reported in Table 4. For all four cases, including that accounting for the heterogenous effects of differential liquid assets holding, the diff-in-diff estimates actually become larger in magnitude with these additional controls.

[Table 4 here]

4.3 Should socially responsible banks rather refrain from lending?

One may argue that some banks, with their loss-absorbing buffers exhausted, were *forced* to reduce lending during the crisis in order not to fail or breach the regulatory requirements. Since bank failures can impose significant social costs, it might be socially beneficial if the weakened banks withdrew loans to reduce asset risks, after the onset of the crisis.

However, "socially responsible" banks that better internalize externalities should, in good times, choose to set aside more loss-absorbing buffers, to maintain liquidity provisions in times of necessity. This would dampen "procyclicality" and is socially beneficial. Therefore, if we observe some banks that aggressively pulled back their loans ex post with their slack exhausted, this still implies that they were *not* socially responsible ex ante.

Nonetheless, it is possible that at the height of the banking crisis, *all* banks were on the verge of failures and needed to cut back loans to avoid failures. We hence re-estimate our main regression by

excluding the years of 2007 and 2008. As can be seen from Table 5 (columns 1 and 3), the diff-in-diff effect actually became more pronounced in its economic magnitude. We also exclude very weak banks whose average capital ratio belongs to the 10th percentile. Our results in columns 2 and 4 barely changed from the benchmark case.

[Table 5 here]

Lastly, it is possible that the *low CSR* banks chose to maintain their loans to underwater borrowers during the crisis, rather than illiquid borrowers, to avoid recognizing the losses. This "zombie lending" is socially inefficient and, if it were the case, *low CSR* banks were indeed less responsible during the Great Recession, as the metric rightly suggested. Unfortunately, we do not have performance information of the originated loans we used to assess this possibility, and instead examine non-performing loan ratio for C&I loans from the Y-9C form.[23] Using this as a dependent variable in equation (1), the diff-in-diff estimate should be negative if *low CSR* banks mostly maintained zombie loans post-crisis. However, we have a positive estimate, albeit not significant both statistically and economically. This result is available from the authors.

4.4 Effects on mortgage lending

We next examine mortgage lending by these banks, which mainly serves two purposes. First, we analyze whether the *high CSR* banks also reduced credit to other types of borrowers in the local economies. However, note that bank mortgage lending decisions are only remotely related to our subject regarding voluntary internalization of material social impacts. Unlike with small business loans, reducing mortgage originations does not directly imply pulling back funds from local borrowers in need of liquidity. The policy makers also actively intervened in this market, which exerted differential effects on lenders. Second, Chakraborty, Goldstein, and MacKinlay (2020) find that banks that were benefited more by the Federal Reserves' mortgage-backed securities (MBS) purchases increased mortgage lending, but at the same time reduced C&I lending. With this crowding-out effect, it is possible that the *high CSR* banks reduced their small business lending because they needed to accommodate more mortgage originations in response to the central bank stimulus.

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[23] We use the ratio of non-performing C&I loans to total C&I loans, which includes both SME and larger corporations. Another limitation is we do not observe the vintage years of the non-performing loans.

We re-estimate equation (1) using mortgage loan growths, collected from the Home Mortgage Disclosure Act (HMDA) data, as the dependent variable. The diff-in-diff estimate in Table 6 is similar to that for small business loans in column 1 of Table 2, slightly larger in economic magnitude (-0.371 for all banks and -0.390 for banks above $10 billion in assets, both statistically significant at the 1% level). In sum, the banks with better CSR ratings also reduced their mortgage lending more than those with lower ratings, which implies that these banks had limited lending capacity in general.

[Table 6 here]

5. Channels

How can we explain this puzzling behavior of the *high-CSR* banks? In this section, we explore several channels to understand the underlying mechanism. We argue that these banks spent more resources on conspicuous yet immaterial issues prior to the crisis, and chose to leave out unobservable yet more material externalities. The metric erroneously ascribes them to be more socially responsible, since it only reflects realized, observable attributes.

5.1 Uninformative, or Immaterial Ratings?

One possibility is that the KLD data we use is simply too noisy and uninformative, due to the obvious challenges in measuring the social impacts. However, in this case, we should have found a null result with insignificant β in equation (1).

Relatedly, it is possible that variation in the "overall" *CSR rating* variables we adopt mostly reflects "immaterial" aspects. As Hart and Zingales (2017) or Edmans (2020) suggests, socially responsible firms should address only "material" issues closely related to the firms' business. Social welfare could even decrease if firms internalized "immaterial" externalities into managerial decisions, which is the basis of Friedman's criticism. In recent years, various standard-setting organizations (e.g., GRI, SASB) provide distinctive ESG framework and reporting standards based unique definitions of

materiality. [24] For instance, the GRI Standards, the world's most widely used guidelines for sustainability reporting, focus on the economic, environmental, and social impacts of a company's activities, and select topics with the most significant impacts as material. This framework is similar to the stakeholderism approach we adopt, which considers the impact of corporate activities on the social welfare as in, e.g., Tirole (2001), Magill et al. (2015) and Hart and Zingales (2017).

If our *high-CSR* banks actually performed *worse* in the "material" aspects but had significantly higher scores for the "immaterial" topics – and thus higher overall scores – our previous result was driven by the adoption of the misleading measure to identify the treatment group. However, to explore this possibility, we would need to have distinct scores for the material (i.e., with significantly positive impacts on the social welfare) and immaterial topics (i.e., with non-significant or possibly negative impacts), which we do not.

As an alternative, we use the SASB Materiality Map that identifies respective material issues at the industry level. We match the material topics for commercial banks with the KLD dataset, following the classification in Khan, Serafeim, and Yoon (2016). A major limitation is that the SASB adopts the investor viewpoint, and focuses on issues that would have a "financially" material impact, rather than taking the social welfare perspective with a more comprehensive range of stakeholders (e.g., GRI guidelines). In addition, those reporting standards classifying the material issues were mostly unavailable in 2006.

[Table 7 here]

Panel A of Table 7 presents the basic statistics for the *high-* and *low-CSR* groups, comparing their respective material and immaterial CSR scores. As can be seen from the matching table in the Appendix, most of the topics (50 out of 60) we have are categorized as immaterial, and for the material topics, many banks simply had 0. We thus have a larger cross-sectional variation for the immaterial scores, which suggests that our *overall* scores reflect the immaterial aspects more. However, the *high-CSR* banks have significantly higher scores for both material and immaterial topics.

We next re-estimate our main regression of equation (1), with differently defined treatment groups. We first identify the treatment group of *high-CSR* banks only using the material topics. As discussed

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[24] For the differences among the major organizations, see, e.g., their joint statement announced in September 2020 (https://integratedreporting.org/resource/statement-of-intent-to-work-together-towards-comprehensive-corporate-reporting/).

above, many banks simply had 0 for these topics and we only have 16 banks with a net positive score out of the total 166 banks. Hence, the diff-in-diff estimate might have a low power problem and should be interpreted with caution. We similarly define the treatment group only using the immaterial topics. 58 banks had a net positive score in this case to be included in the *high-CSR* group, and this assignment almost perfectly overlaps with that of the benchmark case in the previous section, missing only 1 bank.[25]

Panel B of Table 7 presents the diff-in-diff estimates that exclusively use either the material or immaterial scores to identify the treatment banks. The estimates for the immaterial scores are very close to those in Table 2. This is a natural result because the treatment groups for the two cases are almost identical. Compared to this result, the estimates for the material scores are smaller in magnitude and less statistically significant, but still with the negative signs.

In sum, this analysis suggest that our previous results based on the overall scores are largely the same when only using the immaterial topics to define the "socially responsible" banks. However, putting the obvious limitation of identifying the material issues aside, it was not the case that our benchmark *high-CSR* banks had lower scores for the material topics and thus socially *ir*responsible.

5.2 Resource constraint, operating leverage, and lending capacities.

Our results in Section 4.4 suggested that differential damages from the crisis or post-crisis policy interventions do not seem to explain why *high CSR* banks had limited lending capacities post-treatment. In this section, we claim that these banks spent rather "too much" in good times, leaving too little financial or operational slack to maintain the flow of credit in times of necessities.

Suppose that a firm would need to spend more resources in order to acquire good CSR ratings, which requires, e.g., more information disclosures (Lopez-de-Silanes, McCahery, and Pudschedl 2019), better employee benefits, or expenditures on certain activities that the rating agencies evaluate. Also, note that there should exist a tradeoff between immediate expenditures and future slack for any bank with a resource constraint. In this case, the overall CSR scores should be *positively* associated with immediate expenditures, and *negatively* correlated with precautionary "dry power" for the future usages, all else being equal. Here, the performance metric measured in good times can become misleading because that might mostly reflect non-material, yet conspicious aspects.

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[25] For the subsample of large banks more than $10 billion in assets, 10 for material and 20 for immaterial (total 46)

We first examine operating expenses, defined as banks' non-interest expenses net of the write-offs of intangible assets, for the two groups in Table 8. Panel A presents basic statistics for the ratio of operating expenses to total assets. Note that, prior to the crisis, *high-CSR* spent more expenses than *low-CSR* banks by 0.3 percentage point. However, *high-CSR* significantly reduced this spending post-crisis (by 0.2 percentage points, which is sizable given that the average ROA is 0.6% in our sample), which suggests that they were constrained post-treatment to squeeze operating expenses. On the other hand, *low-CSR* did not decrease their spending significantly, indicating that they were not constrained. The difference is even more stark when we limit our sample to the large banks, while less significant statistically due to the small number of banks included.

[Table 8 here]

This result suggests that *high-CSR* banks had higher operating leverage at the treatment, and were forced to cut down both their operating expenses and lending. Note, however, that this could have been a privately optimal decision ex-ante, because certain CSR related expenditures – even if not related to the material externalities – can still increase the shareholder value by, e.g., reducing compliance risks or enhancing customer/employee loyalties. However, banks in such cases promoted their ex-ante benefits at the expense of ex-post slack, when the latter is more socially desirable.

More concretely, we next examine a possible tension between serving different stakeholders with limited resource, specifically focusing on the conflict among bank employees and local borrowers. Banking is one of the highest-paying industries, sometimes criticized for "overpaying" their employees in good times, not reflecting the downside risks. Employee satisfactions, on the other hand, is one of the critical elements of the CSR/ESG evaluation. As shown in Section 2, our *high-CSR* banks had significantly higher scores in the Employee Relations category, suggesting that their employees felt to be better treated.

We conjecture that that the *high-CSR* prioritized providing benefits to their employees in good times, which might have been socially excessive, to end up leaving smaller slack for downturns. Panel B of Table 8 compares the salaries and benefits between the two groups, again normalized by total assets. As in Panel A, *high-CSR* banks spent significantly more on their employees prior to the crisis than *low-CSR* banks. However, they cut down these expenses significantly after 2007, while *low-CSR* banks did not. This indicates that *high-CSR* banks paid rather "excessive" compensation pre-treatment, and were forced to economize post-treatment. Again, more generous spending helped them acquire

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the better ratings ex-ante, but this limited their ex-post lending capacity and exerted larger negative externalities afterward.

To assess this possibility, we re-estimate our main specification of equation (1) by sorting banks using a single CSR category. As discussed in Section 2, our *high-* and *low-CSR* banks significantly differ in the following three categories: *Community*, *Employee Relations*, and *Diversity*. We again identify *high-* and *low-CSR* banks based on only one of these three categories, i.e., those with the positive score in that category are defined as *high-CSR* banks. We then estimate the respective diff-in-diff coefficient for the three cases, reported in Table 9.

[Table 9 here]

Columns 1, 2, and 3 present the diff-in-diff estimates when sorting banks based on their scores for the categories of *Community*, *Employee Relations*, and *Diversity,* respectively.[26] When sorting banks using their *Employee Relations* scores, we have the same result as before – *high CSR* banks reduced their lending more after 2007 than *low CSR* banks. However, our diff-in-diff estimates are insignificant when using other two categories. Note that the *Community* category in our case also assesses banks' immaterial activities such as charitable giving or volunteer programs. Consequently, these scores do not necessarily reflect whether banks indeed internalize their material externalities on the local communities.

In sum, since the metric only reflects *realized* stakeholder benefits, banks that spend more on their employees may receive better assessment in good times. On the other hand, these banks given the resource constraint might have set aside smaller buffers to tap into in bad times, exerting larger social costs. Here, they in their pursuit of immediate benefits choose to leave out unrealized and unquantifiable, yet more material externalities. However, the metric does not reflect the opportunity costs of promoting certain aspects over others, and erroneously attributes them as more socially responsible.

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[26] For each case, 49, 14, and 53 banks (out of 166) are with positive scores and identified as *high-CSR* when using the full sample. 19, 12, and 21 banks (out of 46) are identified as such when limiting to banks larger than $10 billion in assets.

6. Conclusion

Stakeholder theory argues that firms should consider their material externalities on relevant stakeholders in making managerial decisions, instead of merely focusing on profit maximization. Many corporate managers nowadays claim that they adopt this perspective, taking their firms' social impacts into account. States, investors, customers, and employees may be willing to "reward" those that indeed do so, yet identification of such "responsible" firms is challenging in practice due to the lack of a reliable performance metric.

In this paper, we examine whether firms with better CSR ratings indeed internalize their material externality better, by analyzing banks' small business lending during the credit crunch episode of the Great Recession. Banks are special in that we can clearly identify their primary social impact, i.e., provision of funds to the right place at the right time, yet cannot readily assess this attribute in good times, when borrowers are generally not constrained. In bad times, however, we can distinctly observe it from their ex-post responses. The credit crunch during the Great Recession also provides an interesting setup to analyze our research question. First, it was preceded by the credit boom when the borrowers had easy access to credit, and the banks had little room to create incremental social values by reducing financial frictions. Also, during the boom, the banks were known to have spent rather "excessively", not sufficiently incorporating downside risks. This would make the ex-ante assessment of the banks' social responsibility particularly challenging — some might spend resources on rather immaterial but conspicuous issues instead of hoarding slack for downturns, but that could attract the rating agencies' attention to provide better scores. Second, unlike with the recent disruption due to the Covid-19 pandemic, the states did not intervene very actively to address the externality and maintain the flow of credit to the constrained borrowers, neither before (e.g., through macroprudential tools) nor after the shock (e.g., through the direct support such as the Paycheck Protection Program). The government inaction and the banks' social "irresponsibility" consequently resulted in substantial social costs, leading to the regulatory reforms to address them explicitly. For our purpose, however, we could expect a greater room for the banks' *voluntary* actions (i.e., cross-sectional variations) to take their material externality into account for the sake of social benefits.

Our empirical finding is paradoxical – those that had received higher CSR scores actually stayed further away from local borrowers in times of necessities. "Socially responsible" banks should set aside sufficient slack in good times so as to maintain the flow of credit in downturns, but this attribute is not observable ex ante. Since the metric primarily assesses observable and quantifiable features,

firms that spent more to promote such features, even if it may not be socially desirable taking the opportunity costs into account, would receive better evaluation. The banks with higher CSR scores made rather "lavish" expenditures in good times, which helped them receive the better rating. However, the consequent operating leverage limited their lending capacity during the downturn, to become socially irresponsible in a time of need. Our finding suggests that the availability of a proper metric for the social impact assessment is an important necessary condition for the stakeholderism or ESG consideration to improve social welfare; without it, we may ironically support socially "irresponsible" firms when we intend to reward the responsible ones.

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Figure 1. The trend in banks' small business lending

We report the time series of the yearly small business loan growth, for the groups of high- and low-CSR banks. Panel A is based on the bank level averages. In Panel B, for each MSA-bank level yearly growth, we subtract the average loan growth for the MSA in that year to absorb the MSA level variation. This leaves us the deviation from the local average for each bank in each MSA, and we plot their averages for the two groups.

Panel A : small business loan growth based on the bank level averages
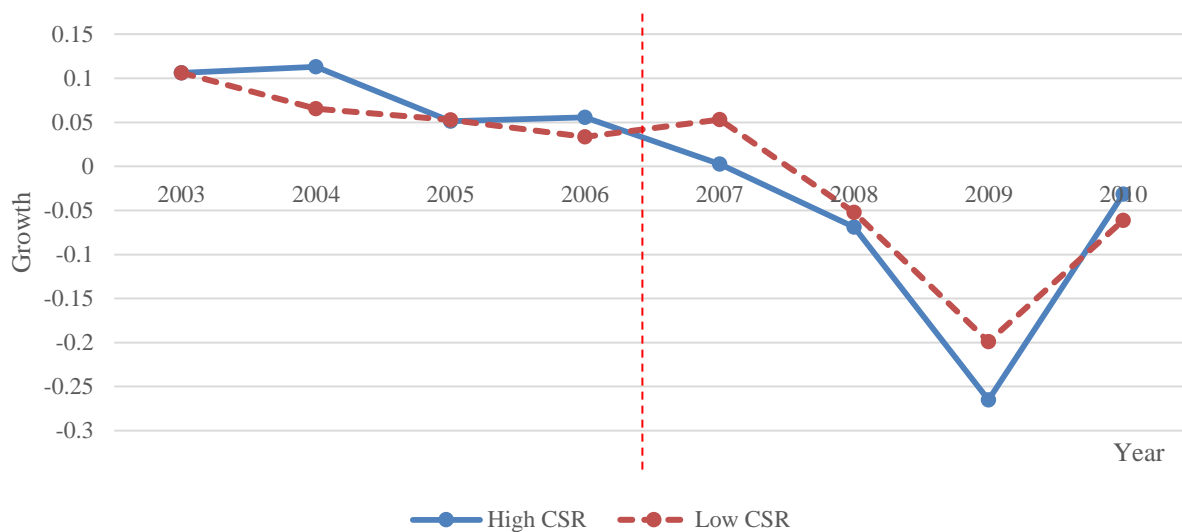
Panel B : small business loan growth based on the MSA level averages

29
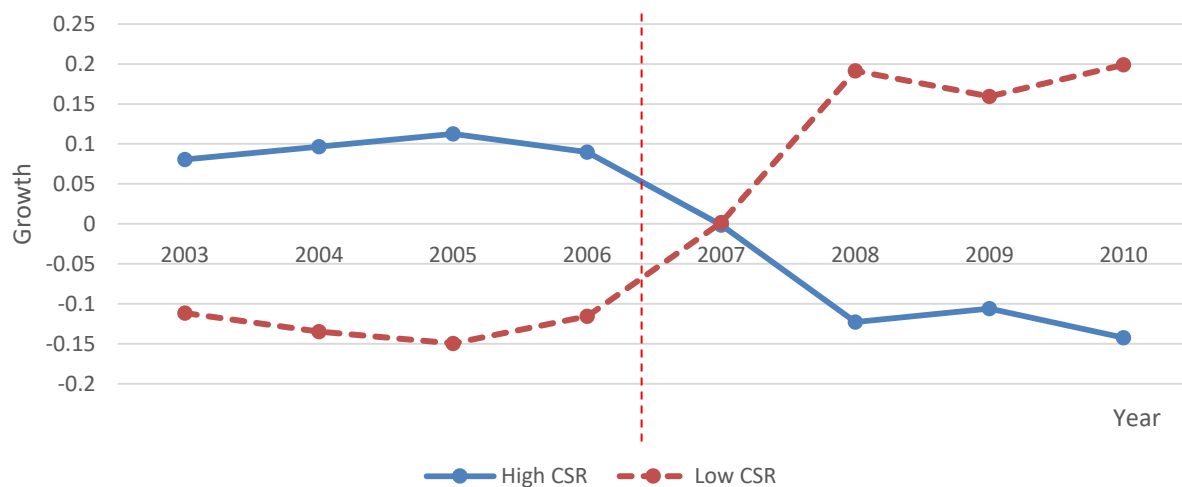
Figure 2. The estimates of β_t along with the 90% confidence intervals

We confirm its validity by estimating the following equation:

$$LoanGrowth_{i,m,t} = \alpha_i + \alpha_{m,t} + \sum_{t \neq 2006} \beta_t * CSR_i * year_t + \gamma X_{i,t-1} + \varepsilon_{i,m,t}$$

where $year_t$ is a dummy variable for each calendar year excluding 2006, the base-year. Figure 2 plots the estimates of β_t along with the 90% confidence intervals.
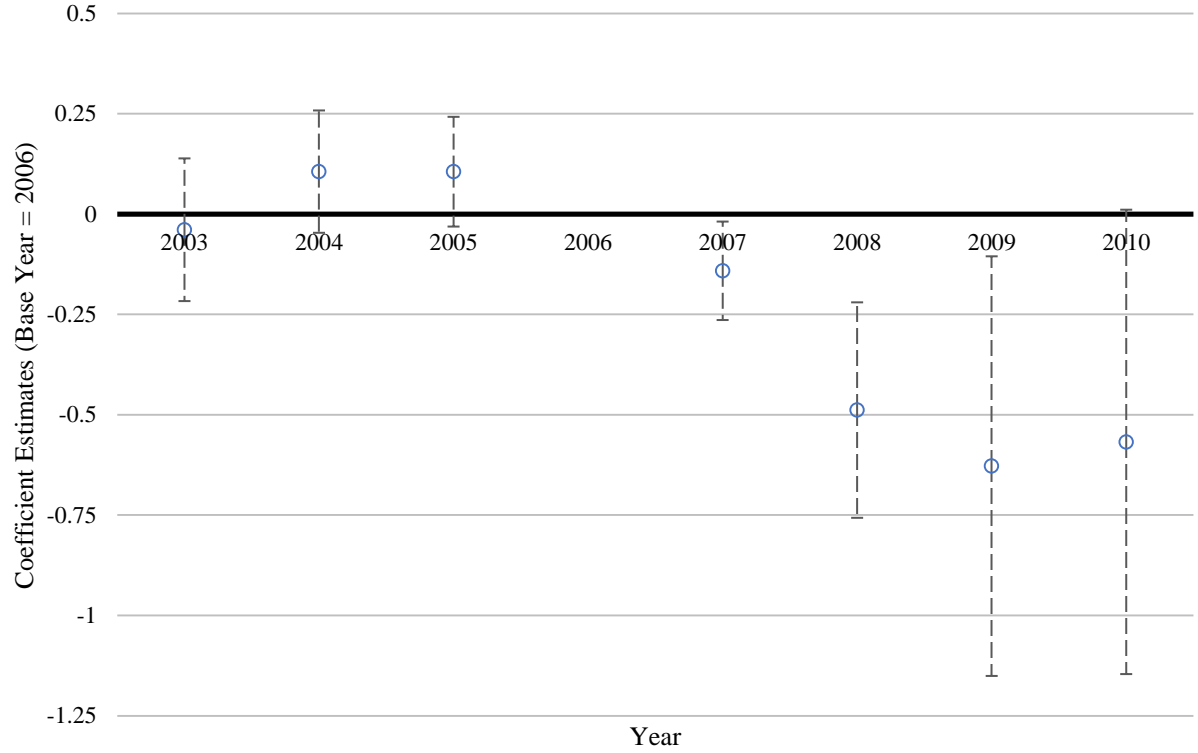
Table 1. Summary Statistics

We report the summary statistics for the variables used in the analysis. Variables are winsorized at the 1st and 99th percentiles. Panel A compares the balance sheet characteristics of the two group, high- and low-CSR banks. Panel B presents the decomposition of the CSR scores for the two groups by different CSR category: Environment, Community, Human Rights, Employee Relations, Diversity, and Products. ***, **, * represent significance at the 1%, 5%, 10% levels, respectively.

Panel A : the balance sheet characteristics of the two group, high- and low-CSR banks

Variables	All banks				H.CSR banks				L.CSR banks			
	Obs.	Mean	Median	Std.Dev.	Obs.	Mean	Median	Std.Dev.	Obs.	Mean	Median	Std.Dev.
Bank-level Variables												
Size (Bil.)	1,191	38.70	4.15	170.20	430	83.62	5.56	273.91	761	13.32	3.33	34.93
Liquid Assets	1,191	0.246	0.229	0.107	430	0.243	0.234	0.105	761	0.248	0.228	0.108
RE Loans	1,191	0.714	0.735	0.145	430	0.702	0.745	0.158	761	0.721	0.727	0.137
CI Loans	1,191	0.174	0.160	0.101	430	0.188	0.165	0.113	761	0.166	0.155	0.093
Non-performing Loans	1,191	0.019	0.009	0.026	430	0.021	0.010	0.026	761	0.018	0.008	0.026
Capital	1,191	0.114	0.111	0.027	430	0.114	0.111	0.027	761	0.114	0.111	0.027
Loan-to-Deposit	1,191	0.937	0.943	0.165	430	0.932	0.930	0.166	761	0.939	0.948	0.165
ROA	1,191	0.006	0.010	0.014	430	0.006	0.010	0.014	761	0.006	0.010	0.015
Bank-MSA-level Variables												
Small Business loan growth	31,185	-0.002	0.010	0.909	18,182	-0.005	0.033	0.851	13,003	0.002	-0.020	0.986
Mortgage loan growth	31,185	0.113	0.009	1.153	18,182	0.141	0.000	1.242	13,003	0.075	0.024	1.014

Table 1 Continued

Panel B : the decomposition of the CSR scores for the two groups by different CSR category

Category	Strength/ Concern	#indicator	H.CSR		L.CSR		Diff.	
			Mean	Std.Err.	Mean	Std.Err.	Mean	Std.Err.
	Strength	5	0.003	0.003	0.000	0.000	0.003	0.003
Environment	Concern	7	0.000	0.000	0.000	0.000	0.000	0.000
	Net	12	0.003	0.003	0.000	0.000	0.003	0.003
	Strength	7	0.128***	0.019	0.017***	0.005	0.111***	0.019
Community	Concern	4	0.038***	0.012	0.065***	0.011	-0.027*	0.016
	Net	11	0.094***	0.019	-0.042***	0.012	0.137***	0.023
	Strength	3	0.006	0.006	0.000	0.000	0.006	0.006
Human Rights	Concern	4	0.013*	0.007	0.000	0.000	0.013*	0.007
	Net	7	-0.007	0.009	0.000	0.000	-0.007	0.009
	Strength	6	0.048***	0.014	0.006**	0.003	0.042***	0.014
Employee Relations	Concern	5	0.027***	0.009	0.052***	0.009	-0.025**	0.012
	Net	11	0.021	0.016	-0.046***	0.009	0.067***	0.019
	Strength	8	0.172***	0.021	0.015***	0.004	0.156***	0.021
Diversity	Concern	3	0.034**	0.013	0.125***	0.016	-0.091***	0.021
	Net	11	0.138***	0.020	-0.109***	0.017	0.247***	0.026
	Strength	4	0.004	0.004	0.002	0.002	0.002	0.005
Product	Concern	4	0.059***	0.021	0.021**	0.008	0.038*	0.023
	Net	8	-0.055***	0.020	-0.019**	0.007	-0.036*	0.021
	Strength	33	0.079***	0.010	0.009***	0.002	0.070***	0.010
Aggregate	Concern	27	0.024***	0.006	0.036***	0.003	-0.011*	0.006
	Net	60	0.053***	0.005	-0.028***	0.003	0.081***	0.006

Table 2. Difference-in-differences estimation for CSR and Small Business Loan Growth

We report the difference-in-differences estimation of the banks' small business loan growth by CSR groups during the period 2003-2010. Panel A reports the results for all sample and Panel B reports the results for banks whose assets are more than 10billion dollars. The table reports point estimates with t-statistics in parentheses. All standard errors are clustered at the bank level. ***, **, * represent significance at the 1%, 5%, 10% levels, respectively.

Panel A : All Banks

Variables	Small Business Loan Growth (1)	Small Business Loan Growth (2)	Small Business Loan Growth (3)	Small Business Loan Growth (4)
CSR Dummy x Post Dummy	-0.308***	-0.320***	-0.315***	-0.308*
	(-3.819)	(-4.002)	(-3.210)	(-1.961)
10Bil. Dummy x Post Dummy		-0.097		
		(-0.993)		
50Bil. Dummy x Post Dummy		0.112		
		(1.043)		
Non Interest Income Ratio x Post Dummy			-0.012	
			(-0.198)	
Size x Post Dummy				0.001
				(0.065)
Bank-Level Controls	Yes	Yes	Yes	Yes
Observations	31,185	31,185	31,185	31,185
R-Squared	0.0358	0.0364	0.0358	0.0358
Bank Fixed Effect	Yes	Yes	Yes	Yes
MSA x Year Fixed Effect	Yes	Yes	Yes	Yes

Table 2 Continued

Panel B : Banks Above 10Bil.

Variables	Small Business Loan Growth (1)	Small Business Loan Growth (2)	Small Business Loan Growth (3)	Small Business Loan Growth (4)
CSR Dummy x Post Dummy	-0.279***	-0.289***	-0.300**	-0.336
	(-3.421)	(-3.593)	(-2.408)	(-1.678)
50Bil. Dummy x Post Dummy		0.074		
		(0.650)		
Non Interest Income Ratio x Post Dummy			-0.038	
			(-0.330)	
Size x Post Dummy				0.003
				(0.246)
Bank-Level Controls	Yes	Yes	Yes	Yes
Observations	24,511	24,511	24,511	24,511
R-Squared	0.0528	0.0531	0.0530	0.0528
Bank Fixed Effect	Yes	Yes	Yes	Yes
MSA x Year Fixed Effect	Yes	Yes	Yes	Yes

Table 3. Statistics of "soundness" characteristics for the two groups, distinguishing pre- and post-treatment

We report the statistics of "soundness" characteristics including *Liquid Assets*, *Non-performing Loans*, *Capital* and *ROA* for the two groups, distinguishing pre- and post-treatment. Panel A reports the results for all sample and Panel B reports the results for banks whose assets are more than 10billion dollars. The table reports point estimates with t-statistics in parentheses. ***, **, * represent significance at the 1%, 5%, 10% levels, respectively.

Panel A : All Banks

	Liquid Assets			Non-performing Loans			Capital			ROA		
	Pre-	Post-	Difference	Pre-	Post-	Difference	Pre-	Post-	Difference	Pre-	Post-	Difference
L.CSR	0.266***	0.227***	-0.039***	0.006***	0.032***	0.026***	0.113***	0.115***	0.001	0.012***	-0.001	-0.012***
	(48.29)	(42.47)	(-5.11)	(27.19)	(18.70)	(15.92)	(95.87)	(73.44)	(0.60)	(61.80)	(-0.92)	(-13.07)
H.CSR	0.251***	0.235***	-0.016	0.008***	0.035***	0.028***	0.112***	0.116***	0.004	0.012***	-0.002	-0.013***
	(35.11)	(32.63)	(-1.59)	(15.45)	(16.33)	(13.08)	(79.88)	(52.43)	(1.50)	(48.28)	(-1.22)	(-11.01)
Difference	-0.016*	0.008	0.023*	0.002***	0.004	0.002	-0.001	0.001	0.003	0.000	-0.001	-0.001
	(-1.71)	(0.87)	(1.82)	(3.16)	(1.29)	(0.78)	(-0.77)	(0.47)	(0.84)	(1.22)	(-0.39)	(-0.64)

Panel B : Banks Above 10Bil.

	Liquid Assets			Non-performing Loans			Capital			ROA		
	Pre-	Post-	Difference	Pre-	Post-	Difference	Pre-	Post-	Difference	Pre-	Post-	Difference
L.CSR	0.284***	0.229***	-0.055***	0.008***	0.035***	0.027***	0.104***	0.107***	0.003	0.013***	0.000	-0.013***
	(24.27)	(21.92)	(-3.40)	(14.16)	(8.71)	(7.51)	(45.98)	(46.26)	(0.92)	(30.51)	(-0.11)	(-7.83)
H.CSR	0.268***	0.261***	-0.007	0.008***	0.043***	0.034***	0.101***	0.113***	0.012***	0.013***	0.001	-0.012***
	(19.11)	(20.04)	(0.31)	(10.90)	(9.42)	(7.79)	(48.69)	(35.70)	(3.18)	(31.50)	(0.56)	(-7.24)
Difference	-0.016	0.032*	0.048*	0.000	0.008	0.007	-0.003	0.006	0.009*	0.000	0.001	0.002
	(-0.88)	(1.92)	(1.93)	(0.48)	(1.25)	(1.25)	(-0.90)	(1.55)	(1.79)	(-0.81)	(0.45)	(0.67)

Table 4. Difference-in-differences estimation of "soundness" characteristics for the two groups, distinguishing pre- and post-treatment

We report the difference-in-differences estimation of the banks' small business loan growth by CSR groups during the period 2003-2010. We explicitly control for the differential responses among banks with different fragilities by adding the interaction term of *post dummy* and each of the four soundness variables as of 2006 in equation (1). Panel A reports the results for all sample and Panel B reports the results for banks whose assets are more than 10billion dollars. The table reports point estimates with t-statistics in parentheses. All standard errors are clustered at the bank level. ***, **, * represent significance at the 1%, 5%, 10% levels, respectively.

Panel A : All Banks

Variables	Small Business Loan Growth (1)	Small Business Loan Growth (2)	Small Business Loan Growth (3)	Small Business Loan Growth (4)
CSR Dummy x Post Dummy	-0.343***	-0.345***	-0.328**	-0.402***
	(-2.810)	(-3.065)	(-2.384)	(-3.533)
Log (Liquid Assets) x Post Dummy	-0.034			
	(-0.434)			
Log (Non-performing Loans) x Post Dummy		-0.012		
		(-0.463)		
Log (Capital) x Post Dummy			-0.015	
			(-0.216)	
Log (1+ROA) x Post Dummy				12.347
				(1.443)
Bank-Level Controls	Yes	Yes	Yes	Yes
Observations	31,185	31,185	31,185	31,185
R-Squared	0.0345	0.0347	0.0355	0.0375
Bank Fixed Effect	Yes	Yes	Yes	Yes
MSA x Year Fixed Effect	Yes	Yes	Yes	Yes

Table 4 Continued

Panel B : Banks Above 10Bil.

Variables	Small Business Loan Growth (1)	Small Business Loan Growth (2)	Small Business Loan Growth (3)	Small Business Loan Growth (4)
CSR Dummy x Post Dummy	-0.347**	-0.366**	-0.334*	-0.415***
	(-2.506)	(-2.530)	(-1.958)	(-3.773)
Log (Liquid Assets) x Post Dummy	-0.077			
	(-0.725)			
Log (Non-performing Loans) x Post Dummy		-0.032		
		(-0.831)		
Log (Capital) x Post Dummy			-0.042	
			(-0.463)	
Log (1+ROA) x Post Dummy				19.288**
				(2.486)
Bank-Level Controls	Yes	Yes	Yes	Yes
Observations	24,511	24,511	24,511	24,511
R-Squared	0.0515	0.0528	0.0534	0.0592
Bank Fixed Effect	Yes	Yes	Yes	Yes
MSA x Year Fixed Effect	Yes	Yes	Yes	Yes

Table 5. Difference-in-differences estimation excluding sub-years or very weak banks

We report the difference-in-differences estimation of the banks' small business loan growth by CSR groups during the period 2003-2010. We re-estimate our main regression by excluding the years of 2007 and 2008(columns 1 and 3). We exclude very weak banks whose average capital ratio belongs to the 10th percentile(columns 2 and 4). The table reports point estimates with t-statistics in parentheses. All standard errors are clustered at the bank level. ***, **, * represent significance at the 1%, 5%, 10% levels, respectively.

Variables	All Banks		Banks Above 10Bil.	
	except 07,08 year	except sub-10% capital	except 07,08 year	except sub-10% capital
	Small Business Loan Growth (1)	Small Business Loan Growth (2)	Small Business Loan Growth (3)	Small Business Loan Growth (4)
CSR Dummy x Post Dummy	-0.434***	-0.283***	-0.364*	-0.304***
	(-3.429)	(-2.612)	(-1.929)	(-3.575)
Bank-Level Controls	Yes	Yes	Yes	Yes
Observations	22,888	22,458	17,966	19,710
R-Squared	0.0436	0.0355	0.0627	0.0573
Bank Fixed Effect	Yes	Yes	Yes	Yes
MSA x Year Fixed Effect	Yes	Yes	Yes	Yes

Table 6. Difference-in-differences estimation for CSR and Mortgage Loan Growth

We report the difference-in-differences estimation of the banks' mortgage loan growth by CSR groups during the period 2003-2010. The table reports point estimates with t-statistics in parentheses. All standard errors are clustered at the bank level. ***, **, * represent significance at the 1%, 5%, 10% levels, respectively.

Variables	All banks	Banks Above 10Bil.
	Mortgage Loan Growth (1)	Mortgage Loan Growth (2)
CSR Dummy x Post Dummy	-0.371***	-0.390**
	(-2.887)	(-2.269)
Bank-Level Controls	Yes	Yes
Observations	31,185	24,511
R-Squared	0.0311	0.0423
Bank Fixed Effect	Yes	Yes
MSA x Year Fixed Effect	Yes	Yes

Table 7. Material and Immaterial CSR scores

We report the statistics and difference-in-differences estimation of material and Immaterial CSR scores. Panel A presents the basic statistics for the high- and low-CSR groups, comparing their respective material and immaterial CSR scores. Panel B presents the diff-in-diff estimates that exclusively use either the material or immaterial scores to identify the treatment banks. The table reports point estimates with t-statistics in parentheses. All standard errors are clustered at the bank level. ***, **, * represent significance at the 1%, 5%, 10% levels, respectively.

Panel A : Statistics for the high- and low-CSR groups, comparing their respective material and immaterial CSR scores.

Category	Strength/ Concern	#Indicator	H.CSR		L.CSR		Difference	
			Mean	Std.Err.	Mean	Std.Err.	Mean	Std.Err.
Material	Strength	6	0.071***	0.019	0.002	0.002	0.069***	0.019
	Concern	4	0.013	0.009	0.002	0.002	0.011	0.010
	Net	10	0.058***	0.019	-0.001	0.003	0.059***	0.019
Imaterial	Strength	27	0.079***	0.008	0.010***	0.002	0.068***	0.008
	Concern	23	0.026***	0.007	0.042***	0.003	-0.017***	0.007
	Net	50	0.053***	0.004	-0.032***	0.003	0.085***	0.006

Table 7 Continued

Panel B : diff-in-diff estimates that exclusively use either the material or immaterial scores to identify the treatment banks.

Variables	All banks		Banks Above 10Bil.	
	Material scores	Immaterial scores	Material scores	Immaterial scores
	Small Business Loan Growth (1)	Small Business Loan Growth (2)	Small Business Loan Growth (3)	Small Business Loan Growth (4)
CSR Dummy x Post Dummy	-0.185**	-0.302***	-0.102	-0.270***
	(-2.098)	(-3.736)	(-0.817)	(-3.334)
Bank-Level Controls	Yes	Yes	Yes	Yes
Observations	31,185	31,185	24,511	24,511
R-Squared	0.0297	0.0355	0.0473	0.0525
Bank Fixed Effect	Yes	Yes	Yes	Yes
MSA x Year Fixed Effect	Yes	Yes	Yes	Yes

Table 8. Statistics of operating expenses for the two groups, distinguishing pre- and post-treatment

We report the statistics of operating for the two groups, distinguishing pre- and post-treatment. Panel A presents basic statistics for the ratio of non-interest expenses to total assets. Panel B compares the salaries and benefits between the two groups, again normalized by total assets. The table reports point estimates with t-statistics in parentheses. ***, **, * represent significance at the 1%, 5%, 10% levels, respectively.

Panel A : Non-interest expenses to total assets

	All banks			Banks Above 10Bil.		
	Pre-	Post-	Difference	Pre-	Post-	Difference
L.CSR	0.028***	0.031***	0.004***	0.027***	0.031***	0.004***
	(77.67)	(51.56)	(5.61)	(29.19)	(27.30)	(2.93)
H.CSR	0.030***	0.031***	0.001	0.032***	0.031***	-0.001
	(40.32)	(39.01)	(0.72)	(20.77)	(24.69)	(-0.40)
Difference	0.003***	-0.001	-0.003**	0.005***	0.000	-0.005**
	(3.46)	(-0.52)	(-2.50)	(2.82)	(-0.13)	(-2.09)

Panel B : Salaries and employee benefits to total assets

	All banks			Banks Above 10Bil.		
	Pre-	Post-	Difference	Pre-	Post-	Difference
L.CSR	0.015***	0.015***	0.000	0.014***	0.015***	0.000
	(74.98)	(73.15)	(-0.85)	(27.53)	(28.82)	(0.31)
H.CSR	0.016***	0.015***	-0.002***	0.017***	0.015***	-0.002*
	(42.18)	(45.45)	(-3.40)	(20.95)	(22.80)	(-1.67)
Difference	0.001***	0.000	-0.001***	0.002**	0.000	-0.002
	(3.79)	(-0.02)	(-2.79)	(2.44)	(0.34)	(-1.57)

Table 9. Difference-in-differences estimation for the two groups identified based on categories

We report the difference-in-differences estimation for the two groups identified based on categories. We identify high- and low-CSR banks based on only one of three categories: *Community*, *Employee Relations*, and *Diversity*. Panel A reports the results for all sample and Panel B reports the results for banks whose assets are more than 10billion dollars. The table reports point estimates with t-statistics in parentheses. All standard errors are clustered at the bank level. ***, **, * represent significance at the 1%, 5%, 10% levels, respectively.

Panel A : All Banks

Variables	*Community* Small Business Loan Growth (1)	*Employee Relations* Small Business Loan Growth (2)	*Diversity* Small Business Loan Growth (3)
CSR Dummy x Post Dummy	-0.170	-0.364***	-0.173
	(-1.167)	(-3.812)	(-1.146)
Bank-Level Controls	Yes	Yes	Yes
Observations	31,185	31,185	31,185
R-Squared	0.0306	0.0373	0.0306
Bank Fixed Effect	Yes	Yes	Yes
MSA x Year Fixed Effect	Yes	Yes	Yes

Table 9 Continued

Panel B : Banks Above 10Bil.

Variables	Community	Employee Relations	Diversity
	Small Business Loan Growth (1)	Small Business Loan Growth (2)	Small Business Loan Growth (3)
CSR Dummy x Post Dummy	-0.084	-0.308***	-0.136
	(-0.533)	(-3.504)	(-0.815)
Bank-Level Controls	Yes	Yes	Yes
Observations	24,511	24,511	24,511
R-Squared	0.0528	0.0531	0.0530
Bank Fixed Effect	Yes	Yes	Yes
MSA x Year Fixed Effect	Yes	Yes	Yes

Appendix A

Table A.1. Indicator description

Category	Strength	Concern
Environment	Waste Management	Ozone Depleting Chemicals
	Climate Change	Toxic Spills & Releases
Community	Charitable Giving	Investment Controversies
	Volunteer Programs	Community Impact
Human Rights	Labor Rights Strength	Support for Controversial Regimes
	Human Rights Policies & Initiatives	Indigenous Peoples Relations Concern
Employee Relations	Employee Involvement	Employee Health & Safety
	Retirement Benefits Strength	Workforce Reductions
Diversity	Workforce Diversity	Board of Directors - Gender
	Non-Representation	Women and Minority Contracting
Product	Quality	Product Quality & Safety
	R&D, Innovation	Anticompetitive Practices