The integration of CSR criteria into executive compensation: a new governance instrument for firms?

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The Covid-19 crisis has put the issue of executive compensation back under the spotlight, with numerous calls to moderation from the regulator, as well as certain employer organizations and investors. Eventually, pay reductions, targeting fixed or variable compensation, were recorded in more than half of the CAC 40 firms in the spring of 2020.

This note shows that in OECD countries, over the last two decades, more and more firms have integrated Corporate Social Responsibility (CSR) criteria into their executive compensation programs, an incentive system designated as "CSR contract". The adoption of these programs, when they are implemented in firms with a stakeholder governance model (according to which the company's various stakeholders are involved in the governance of the company), is associated with improved performance with regard to social and environmental criteria or to respect for human rights, while it does not have any significant effect on financial performance. However, when they are introduced in firms whose governance model primarily hinges on shareholder value creation, the adoption of these CSR contracts is negatively related with financial performance and does not significantly affect extra-financial performance.

- The increase in executives' remuneration in case of good performance is rarely followed by reductions at times of crisis. This raises the question of the objectives at the heart of these compensation programs and their underlying indicators: from financial to extra-financial performance.

- A new incentive mechanism has developed for a few years that consists in indexing a part of executive compensation to Corporate Social Responsibility (CSR) indicators. Known as "CSR contracts", these programs would help incentivise executives to better account for the long term performance of the firm and meet the expectations of a greater share of its stakeholders (shareholders, employees, customers, suppliers, unions, NGOs, local administrations, the State, etc.).

- The adoption of CSR contracts is a global trend: over a panel of close to 4,000 firms worldwide, between 2010 and 2016, 20% have resorted to this type of contracts, especially in Europe (30%), in North America (27%) or in Asia-Pacific (37%) and in the manufacturing and financial industries (26%).

- The deployment of CSR contracts affects the firm's financial and extra-financial performance differently depending on its corporate governance model. For firms whose governance primarily revolves around shareholders, these contracts reduce financial performance and generate limited gains in terms of CSR performance. For firms whose governance model involves a larger number of stakeholders, CSR contracts are effective in improving extra-financial performance along all its dimensions.

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The rules governing executive compensation

Ongoing debates

The Covid-19 crisis has put the issue of executive compensation back under the spotlight, with pressing calls to restraint during lockdowns. In France, where the debate has been particularly intense since executives' pays were first made public in the annual reports of large public firms, demands have stemmed from the regulator and from some employer organisations such as the AFEP (*Association Française des Entreprises Privées*). The latter typically recommends a 25% cut in executive compensation throughout the crisis. Eventually, more than half of CAC 40 firms have reduced remunerations in the spring of 2020 (Boisseau and Rolland, 2020). The 2019 "PACTE" law for firms' transformation and growth (*Plan d'action pour la transformation et la croissance des entreprises*) also aimed at moderating executive compensation by imposing the publication of the equity ratio, which corresponds to the gap between top managers' pay and mean and median salaries.

These debates have a heavy symbolic significance at times of crisis as they raise questions about the determinants, content and aims of executive compensation, which typically breaks down into a fixed component and variable bonuses: what is the fundamental purpose of these remunerations? On what performance metrics do they rely? What are the criteria used to define bonuses?

While they have an employment contract and are generally considered as "corporate officers", executives are yet neither employees like any other, nor subordinates of the boards of directors or shareholders. Setting their compensation is thus an intricate matter. From a theoretical standpoint, there are two main corporate governance models: the so-called "shareholder" and "stakeholder" models (see box 1). They involve clearly distinct sets of factors to determine executives' variable remunerations. Both models are derived from the conflicts of interest that arise from the separation of capital ownership (by shareholders) and control over operational decisions (in the hands of executive managers). These conflicts of interest engender inefficiencies which compensation schemes aim at minimizing. This is why these programs are also considered as tools to frame incentives.

Recently, a new kind of compensation programs has emerged: "CSR contracting". With such schemes, bonuses are determined based on criteria that relate to the Corporate Social Responsibility (CSR) of the firm, such as the reduction of greenhouse gas emissions or the quality of work relationships (see box 2). In Germany for instance, car manufacturer BMW has released in July 2020 a set of CO_2 emission reduction goals, on which the compensation of its management board now partly depends. This integration of environmental or social objectives can be seen as a response to the growing pressure put on firms to adopt a socially responsible behaviour, and on their boards of directors to foster stakeholders' involvement (Flammer et al., 2019). CSR contracts have spread rapidly in executive compensation programs and international institutions like the United Nations are increasingly promoting them (PRI, 2012). In France, the 2019 Pacte law now requires from firms that they publish the variable components of their executives' remunerations that are linked to CSR objectives.

In the economic literature on executive and manager compensation, little attention has been given to the role of environmental and social criteria, known as "extra-financial" or simply "CSR criteria". This note precisely questions the relevance of these CSR contracts by describing how executives' remunerations respond to the assessment of their social and environmental responsibility, how this response affects firms' performance and how these effects relate to theoretical models of corporate governance. This note is based on the study of a global panel dataset of 4,000 public firms over the 2004-2018 period.

Incentives based on financial performance: a model to redesign for executives?

Incentives based on financial performance designate the bonuses whose computation relies on the short-term evolution of the firm's market value, its revenue or its commercial development in given markets for instance. A rich body of works have investigated the importance and the challenges of these financial incentives as tools to discipline managers (Murphy, 1999). In the US for example, executive compensation has increased sharply over the last three decades, in parallel to shareholder value. This suggests that remuneration programs have contributed to align top managers' incentives with shareholders', and that executives' assets are very sensitive to the financial performance of the firm (Frydman and Saks, 2010). This trend is not circumscribed to the US; it is observed in other OECD countries, although to a lesser extent (Abowd and Kaplan, 1999).

Are there bounds to these remunerations? Over the last few years, scholars, investors, policy-makers and the general public have become growingly concerned with excessive compensation practices. Many studies have been conducted, uncovering the hidden cost of financial incentives, as well as the dangers associated with these remuneration structures and the bonus culture (Sliwka, 2007; Bénabou and Tirole, 2016). Stock options and bonuses increase with volatility and spur CEOs to take risks, rewarding them without even accounting for shareholders'

Box 1 : Theoretical models of corporate governance

The shareholder model: The shareholder model of corporate governance has developed since the 1950s and relies on a perfect competition assumption. It showed that by aligning their compensation with shareholder value creation, market forces would discipline executives. Remunerations are determined by "external" factors from the market for executive managers (e.g., talent and peer recognition), from the merger and acquisition market (e.g., takeover threats and tender offers), or from the financial information market (e.g., investor information and relations). In practice, compensation must be high enough to attract talents, but it must also respond to financial performance (i.e., to the firm's market value) in order to preserve incentives. This model particularly fit the business environment of the 1990s, with the rise of free competition rules, the internationalization of markets and the development of investment funds.

The stakeholder model: At the end of the 1990s, the development and burst of the financial bubble shed doubt on the soundness of shareholder value creation. The stakeholder model then developed in response to pressures from the civil society and from some shareholders who were attentive to all stakeholders' expectations (shareholders, employees, customers, suppliers, unions, NGOs, local administrations, the State, etc.). In this model, executives' incentives are theoretically aligned with the creation of value for all stakeholders, beyond sole shareholders (Crifo and Rebérioux, 2016). Remunerations are then based on "internal" mechanisms: rather than simply disciplining top managers' decisions, the aim is to balance the respective expectations and influence of different stakeholders of the firm. These internal mechanisms rely on the main governance bodies: the board of directors (via the decisions of the compensation committee), shareholders (via their voting rights in general meetings), unions and employees (via programs for employee participation in strategic decisions) and audits.

Model	**Shareholder**	**Stakeholder**
Objective	Shareholder value	Stakeholder value
Financial markets	Very active	Limited
Ownership	Dispersed	Concentrated, blockholders
Discipline device and control	External Market based (e.g., takeover bids threats)	Internal Monitoring (e.g., employee directors)
Incentives and horizon	Short term High powered financial incentives	Long term Low powered financial incentives
Boards of directors	Represent shareholders' interests	Dominated by stakeholders

Table 1 - The two theoretical models of corporate governance.

Source: Crifo and Rebérioux (2016).

Box 2 : The different categories of extra-financial criteria according to VigeoEiris

As one of the leading European extra-financial rating agencies, VigeoEiris evaluates companies along 5 axes presented below. For each, the key question is whether the firm has deployed an integrated strategy and actions to tackle social challenges through the analysis of multiple criteria. The consolidation and weighting of these criteria, which depend on the industry considered, then allow to define a score from 0 to 100 that reflects the degree of exemplarity of the firm. We list below some examples of the criteria under study.

- **Human resources:** How or to what extent does human resources management interact with the firm's strategy? How good are the working conditions? Are there career development programs in place?
- **Environment:** What are the firm's environmental externalities and what are the actions taken to limit them? What is the firm's policy to avoid an excessive consumption of natural resources? Has a strategy been implemented to reduce the impact of goods and services at production, distribution and conception stages?
- **Market position:** Does the company nurture long-term and sustainable relationships with its customers and suppliers? What are the actions taken to fight corruption? Does the firm take part in anti-competition practices?
- **Social engagement:** Has the company got involved in the development of its territory and what is its impact? Are there notable engagements in favor of public interest causes?
- **Human rights:** What are the measures implemented to eliminate discrimination? Does the firm resort to forced or child labour? Does the company monitor its suppliers on such topics?

long-term interests (Bertrand and Mullainathan, 2001). In some countries (e.g., in France or in the US), policy-makers have recently responded by adopting laws that require from firms the organisation of votes on executive compensation during general meetings ("say on pay"), the publication of ratios that relate CEOs' remuneration with employees', or the limitation of bonuses. Similarly, pension funds increasingly leverage their ownership rights to express discontent with executive compensation programs deemed inappropriate.

An abundant literature now acknowledges that disproportionate financial incentives can distort manageral effort or encourage various unproductive activities that misleadingly improve performance indicators, thereby leading to excessive short-termism (Baker et al., 1994; Edmans et al., 2017).

Incentives based on CSR criteria: integrating sustainability objectives into executive compensaton programs?

A key argument in favour of the development of "CSR contracts" consists in encouraging executives to create long-term value for the firm (including value for the shareholders). This implies sacrificing short-term benefits for long-term gains and turning to all of the firm's stakeholders (Flammer et al., 2019).

Until then, the notion of incentives based on extra-financial criteria found little support in the literature. Holmström and Milgrom (1991) typically showed that, for optimality purposes, managerial incentives must be based on financially measurable performance criteria. The corporate finance literature further considers that providing other types of incentives would lead top managers to divert part of the firm's surplus, without resolving the conflicts of interests and objectives between shareholders and executives (Cespa and Cestone, 2007). Incentives based on extra-financial performance and CSR could in fact give rise to entrenchment strategies, as executives may have idiosyncratic motivations to commit to a socially responsible behaviour. By gaining favour with stakeholders, the manager could, for instance, avoid getting replaced by the shareholders. These theories thus suggest that the implementation of CSR contracts is likely to weigh negatively on the financial performance of the firm.

The rise of CSR and measurable extra-financial criteria however calls this paradigm into question. With investors' growing need for non-financial information, for instance related to working conditions and environmental impact, the measurement of extra-financial performance has greatly developed, consolidated and entered a standardisation phase (see box 2). These data are now produced by specialized rating agencies, such as VigeoEiris, or by firms themselves, most often under the supervision of an independent certifying body. The improvement and standardisation of the indicators help reconcile the implementation of incentives based on extra-financial criteria and the conventional models of conflict of interests between shareholders and executives.

A growing adoption of CSR contracts: how to measure their impacts?

While an abundant literature has documented the financial compensation programs of top executives (traditional "remuneration plans based on financial performance"), we know little on the effects of CSR contracts on performance, especially from an empirical standpoint (Maas, 2016). To determine what could be the impact of adopting these programs on firms' performance, it is first necessary to establish a measurement methodology.

The extra-financial rating agency VigeoEiris is among the few that record firms' practices in that regard. We have used their database to investigate how the adoption of CSR contracts affects the company's performance, over a sample of close to 4,000 firms in OECD countries between 2004 and 2018.

As seen in Figure 1, before 2010, none of the firms in our panel had proposed this type of contract to its executives. However, in the first semester of 2018, it had been adopted by more than 800 companies (i.e., 20% of our panel). We notice that this evolution is uniform across the shareholder and stakeholder models of corporate governance.

Our identification strategy relies on the comparison of firms that have adopted a CSR contract (this group is designated as the treatment group) and firms that have never chosen such executive compensation programs (this group is designated as the control group) over the sample period (2004-2018), while controlling for the impact of other factors like the broader economic conditions, size or debt.

That being said, the direct effect of the implementation of CSR contracts thereby evidenced may be distorted by the endogeneity of their adoption - that is, by the fact that the firms which resort to a CSR contract are likely those that display better financial and extra-financial performance. In that case, differences observed between the treatment and control groups could be due to the intrinsic charac-

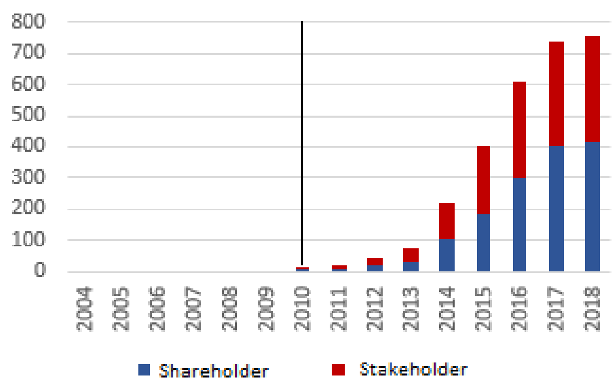

Figure 1: Evolution of the number of firms having adopted CSR contracts.

Notes: Bars represent the cumulative number of firms having implemented a CSR contracting policy. Data collection ends in April 2018, which may explain the low additional number of firms integrating CSR criteria into their compensation programs in 2018.
Interpretation: Over the sample period, we observe a strong increase in the number of CSR contract adoptions, within both types of firms (shareholder or stakeholder governance), from 0 in 2010 to almost 100 in 2013, 400 in 2015, 600 in 2016 and over 750 in 2018.
Source: Cavaco, Crifo and Guidoux (2020).

teristics of firms and not caused by the sole adoption of CSR contracts.

The econometric method of Differences in Differences (DiD) allows to identify this causal effect, meaning that we can isolate the variations between both groups that are attributable to the adoption of CSR contracts. This approach consists in comparing the evolution of treatment group firms' performance with a counterfactual situation, proxied with the evolution of control group firms' performance. Said otherwise, we compute the performance gap between adopting and non-adopting firms, to which we subtract the difference observed before the implementation of CSR contracts. Assuming that both groups would have kept evolving symmetrically in the absence of CSR contracts, if the average performances of both groups diverge after CSR contracts are adopted, we can interpret this divergence in trajectories as the causal effect of their implementation. By definition, this fundamental assumption cannot be tested, as we observe neither the counterfactual situation nor the full set of firm-level characteristics. Though, we test whether firms in the treatment and control groups follow similar performance trajectories in the pre-adoption period (see Figure 2).

Another advantage of the DiD approach lies in that it does not account for the timing of adoption and still holds if the treatment group changes over the years. To date, these adoptions are not related to any legal obligations and depend on firm-specific decisions. As seen previously (see Figure 1), CSR contracts were not adopted simultaneously over the sample period. The DiD method thus allows to exploit the voluntary adoption timeline of CSR contracts and identify their average effects on firms' performance.

In addition, we study the crucial role of the corporate governance model. Each of the two models (shareholder or stakeholder) determines a set of structural parameters of the firm's governance. We explore whether our estimates of the impact of CSR contracts on performance vary from a governance model to the other.

To ensure the relevance and robustness of our findings, we have complemented our empirical strategy with instrumental variable approaches and a number of robustness checks. All these analyses lead to similar conclusions.

How do CSR contracts affect firms' performance?

Focus on the OECD countries from 2004 to 2018

First, we can compare the average performances of the treatment and control groups, over the 2004-2018 period. This preliminary analysis does not isolate the variations that can be causally related to CSR contracts, but it gives a sense of whether such variations exist. It further allows to confirm that before 2010 (i.e., before the first contracts were adopted), both groups followed similar enough trajectories. This last assumption is at the heart of our econometric model, which relies on the DiD method.

Figure 2 presents the average performances of both groups with regard to the evolution of the return on assets, which tracks the financial value of firms, and to VigeoEiris' five extra-financial indicators (see box 2). The observation of the graphs, corroborated by a statistical analysis, confirms the similarity between both groups before 2010 and underlines a potential divergence afterwards.

This divergence is supported by subsequent estimates. Our results, summarized in Figure 3, indicate that the adoption of CSR contracts entails (i) a decrease in the firm's market value (as measured by the return on assets and the return on equity), but also (ii) an improvement of the various CSR performance indicators, as defined by VigeoEiris. The positive effect is slightly stronger for the in-

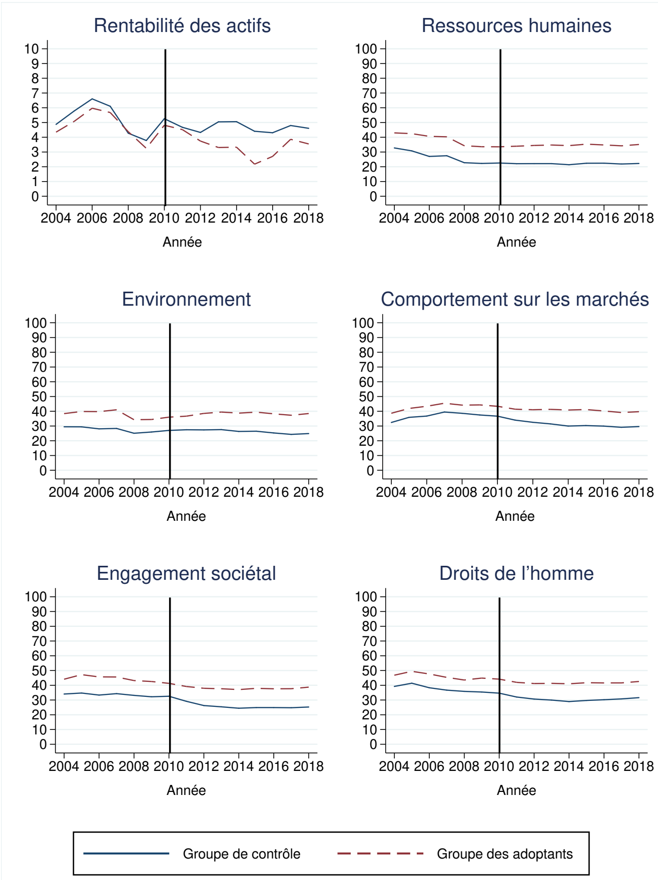

Figure 2: Performance of firms having adopted CSR contracts or not

Notes: The continuous blue line represents the average score of the control group (no CSR contracts). The dash red line represents the average score of the treatment group (firms having adopted CSR contracts). Return on assets (ROA) measures the rate of return on the invested assets as the ratio of a firm's net income and its total assets. It is expressed in %. CSR performance scores are discussed in box 2.
Interpretation: Control and treatment groups have similar trends until 2010, the year in which the first CSR contracts were adopted.
Source: Cavaco, Crifo and Guidoux (2020).

Performance indicators: / Variations :	ROA	ROE	Human resources	Environment	Business behavior	Community involvement	Human rights
All companies	-0.4**	-1.1**	+1.0***	+1.2***	+2.0***	+2.0***	1.1***
Companies with a shareholder model	-0.8**	-1.6*	*Non significant*	*Non significant*	1.5***	*Non significant*	*Non significant*
Companies with a stakeholder model	*Non significant*	*Non significant*	+1.402***	+2.0***	+2.5***	+2.5***	2.1***

Figure 3: Average change in performance attributable to the adoption of CSR contracts.

Notes: This table summarizes the average changes in different performance indicators that are attributable to the adoption of CSR contracts, holding everything else constant. The number of stars represents the degree of statistical significance of the estimate: *** if p-value <0.01, ** if p-value <0.05, * if p-value <0.1. Return on assets (ROA) measures the rate of return on the invested assets as the ratio of a firm's net income to its total assets. Return on equity (ROE) measures the profitability of a firm and its efficiency in generating profits as the ratio of its net income to its equity. Both ROA and ROE are expressed in %. CSR performance scores are discussed in box 2.
Interpretation: Over the full sample, we find that the adoption of CSR contracts slightly reduces financial performance and improves extra-financial performance as measured by VigeoEiris' indicators. If we distinguish firms based on their corporate governance model, we observe that for stakeholder-governance firms, the negative impact on financial performance dissipates and there is a stronger increase in extra-financial performance metrics. Oppositely, for shareholder-governance firms, the positive effect on CSR is weaker than that estimated over the whole sample (e.g., for market behaviour), or even statistically insignificant (e.g., for the "Environment" score), and the negative impact on financial performance is starker (-0.8) than the full sample effect (-0.4).
Source: Cavaco, Crifo and Guidoux (2020).

dicators that assess responsible behaviours towards customers and suppliers, as well as for social engagement.

The importance of the firm's governance model

We find that accounting for the corporate governance model of the firm (either shareholder- or stakeholder-oriented, see box 1) modifies these results. For companies with a stakeholder governance model, the negative impact of CSR contracts on financial performance measures becomes statistically insignificant and the positive effect on environmental and social performance indicators is stronger. This means that for this type of firms, CSR contracts complement the financial performance policy in place while significantly improving CSR performance.

Oppositely, for companies with a shareholder governance model, the positive effect of CSR contracts is limited to an improvement of behaviour on the market while the negative impact on financial performance is starker. These results reveal that the benefits from CSR contracts are more ambivalent for this type of firms.

Conclusion

This note examines the prevalence of CSR contracts and their impact on firms' performances. It identifies why companies may find it profitable to shift the focus of their executives onto long-term extra-financial gains and the involvement of stakeholders via a specific bonus policy.

On the one hand, our results show that firms with a corporate governance model turned towards all of their stakeholders capitalize on the potential synergies and complementarities between the executive and stakeholders, be they close (shareholders) or broader (customers and the community as a whole), by integrating CSR criteria into their compensation programs. This proves especially beneficial in terms of extra-financial performance. On the other hand, firms with a corporate governance model focused on their shareholders do not find it valuable to align managerial incentives with broader stakeholders, with negative or neutral effects of the compensation programs that include CSR criteria on financial or extra-financial performance.

Nonetheless, our results evidence that extra-financial criteria included in executive compensation programs can constitute an additional governance mechanism that boards of directors can leverage to incentivise executives towards value-creating activities, conditional on governance bodies sharing a long term horizon. Given the growing pressure in favour of the integration of more sustainable practices within firms, our results may foster a closer dialogue between the firm and its various stakeholders in order to target the Environmental, Social and Governance (ESG) issues that are most relevant to their business and also help create a more proactive strategy for taking ESG performance into account within governance bodies. The next general meetings will concretely show whether boards of directors have actually become aware of these executive compensation issues in the face of the broader context and the current healthcare, environmental and social challenges.

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Reference study

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