Chapter 9
Converging the Shareholder and Stakeholder Theories

Writing an Explicit Corporate Objective Function

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Abstract European Commission (2011) defines Corporate Social Responsibility (CSR) as 'the responsibility of enterprises for their impacts on society.' By addressing the claims of the stakeholders, CSR aims at enhancing the economic, social, and environmental welfare of the society. In parallel, there goes a debate over the shareholder vs stakeholder supremacy; whether corporations should have the sole responsibility to their shareholders or to all stakeholder groups. The shareholder or stakeholder supremacy is a long standing debate, but no definitive consensus has been reached yet. The debate continues, but proponents of both theories also have agreements on many areas. For example, they agree that corporations should create wealth and consider their stakeholders' concerns in making decisions. However, disagreements remain with important implications. The main disagreement is about the purpose of the firm; 'What should be the corporate objective function?' By discussing the shareholder and stakeholder theories to construct an explicit **corporate objective function,** the article aims at identifying the conditions under which the two theories converge. This also sheds light on why each theory advises management to act different in similar business conditions. The structure of the paper is as follows. Following a brief overview of each theory and key criticisms they receive, the paper addresses three areas of particular concern: (i) treatment of stakeholders under the two theories, (ii) wealth creation and allocation from the perspectives of both theories, and (iii) the 'problem of justification.' In the final section, we will construct the corporate objective function in three stages.

Keywords Stakeholder · Shareholder · Corporate Objective Function

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9.1 Introduction

European Commission (2011) defines Corporate Social Responsibility (CSR) as 'the responsibility of enterprises for their impacts on society.' Respect for applicable legislation, and for collective agreements between social partners, is a prerequisite for meeting that responsibility. To fully meet their CSR, enterprises should have in place a process to integrate social, environmental, ethical, human rights, and consumer concerns into their business operations and core strategy in close collaboration with their stakeholders, with the aim of:

- maximizing the creation of a shared value for owners/shareholders and other stakeholders including society, and
- identifying, preventing, and mitigating their possible adverse impacts.

OECD states that corporate responsibility involves the search for an effective 'fit' between businesses and societies in which they operate. OECD also states that this 'fit' between the two helps to foster an atmosphere of mutual trust and predictability that facilitates the conduct of business and enhances economic, social, and environmental welfare.

Similarly, ISO 26000 Social Responsibility (2014), points to the key role of stakeholders and sustainability; 'Organizations around the world, and their stakeholders, are becoming increasingly aware of the need for, and benefits of, socially responsible behaviour. The objective of social responsibility is to contribute to sustainable development. An organization's commitment to the welfare of society and the environment has become a central criterion in measuring its overall performance and its ability to continue operating effectively…'

Global Reporting Initiative (GRI) G4 Sustainability reporting helps organizations to set goals, measure performance, and manage change in order to make their operations more sustainable. A sustainability report conveys disclosures on an organization's impacts—be they positive or negative—on the environment, society, and the economy. Stakeholder inclusiveness principle states that the organization should identify its stakeholders and explain how it has responded to their reasonable expectations and interests.

As noted above, and in various other definitions in the literature, stakeholders are the key for CSR. From a CSR perspective, it is critical to define and classify stakeholders and understand and respond to their claims.[1] For that purpose, the triple bottom line taxonomy (economic, social, and environmental) will be used in this article to address *some* of the stakeholders. Other stakeholders', such as customers', employees', and suppliers' interests are addressed in the accounting profit (revenues & costs of the firm), while the shareholders' interest is addressed through the shareholder value creation (cost of capital of the firm). Building on these, the article will discuss the shareholder vs stakeholder supremacy debate. Following the

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[1]Negotiation capacities (i.e. power, *legitimacy and urgency of stakeholder claims*) *will be discussed in Sect.* 3.2.

historical steps of the business understanding, the article will argue a three-phased progress in the perceptions on the purpose of the firm, accounting profit maximization, shareholder value maximization, and finally stakeholder value maximization.

Shareholder vs stakeholder supremacy debate is on whether corporations should have sole responsibility to their shareholders or this responsibility should be extended to all stakeholder groups. The shareholder *or* stakeholder supremacy is a long standing debate, but no definitive consensus is reached yet.

The origins of the controversy can be found at least since the infamous debate between Dodd and Berle in early 1930s (Williamson 1985: 322; Fisch 2006 and Ho 2010: 71). Some scholars, (Sundaram and Inkpen 2001: 6) date the debate to the mid-nineteenth century while some others even trace it to earlier periods. For example, according to Key (1999: 319), Adam Smith's identification of external interests to the firm may be viewed as an early recognition of stakeholders; consumers being external members who were affected by and had an interest in the firm. However, the current understanding of stakeholder is commonly credited to Freeman's landmark book *Strategic Management: A Stakeholder Approach* (1984). The use of the term stakeholder, however, grew out of the pioneering work at Stanford Research Institute in the 1960s, which was heavily influenced by concepts developed by the planning department of Lockheed (Freeman and McVea 2001: 4).[2]

The debate continues, but proponents of both theories also have agreements on many areas. For example, they agree that corporations should create wealth and consider their stakeholders' concerns in making decisions. However, disagreements remain with important implications. The main disagreement is about the purpose of the firm; what should be the purpose of the firm? Put it in another way; '*What should be the corporate objective function?*' (For an overview of the two perspectives; see Jensen 2001 and Freeman et al. 2004).

The main aim of this paper is to construct the **explicit corporate objective function.** This, in my view, should enable us to identify the differences between the two theories in an analytical way, i.e. under which conditions the two theories converge or why does each theory advise management to act different in similar business conditions?

In constructing the corporate objective function,[3] I will start with a proposition; the perception of the purpose of the firm has passed (and is still passing) through three phases, and each phase is a modified version of the previous one.

This Paper argues that in the first phase, the corporate objective function was ***accounting profit maximization*** (total revenue minus total costs). Then, in the second phase, with the introduction of opportunity cost, the objective function has

[2]For historical review of CSR and stakeholders, see Agle and Mitchell (2008: 155–158), Carroll (1999) and Kristoffersen et al. (2005).

[3]Note that the corporate objective function is 'maximization of' another function, such as profit function.

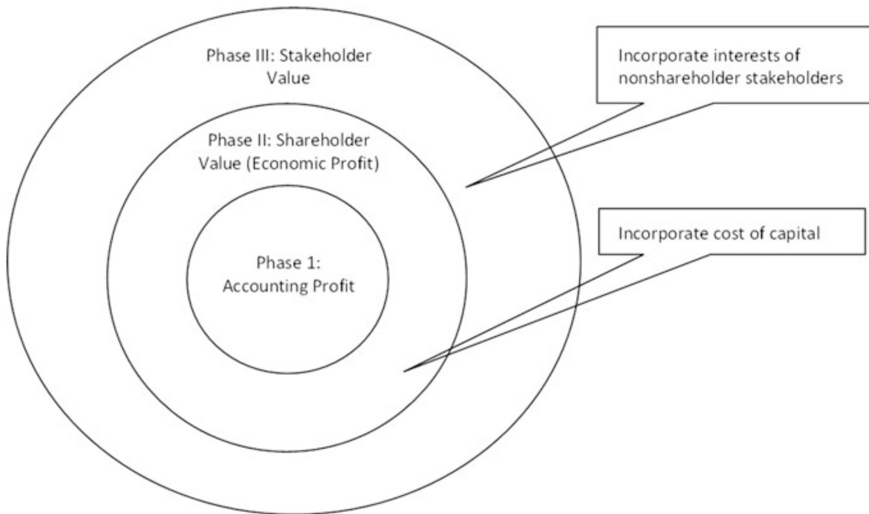

Fig. 9.1 The three phases of the perceptions on the purpose of the firm

been transformed to ***shareholder value maximization*** (economic profit). Finally in the third phase, with the introduction of stakeholder[4] interests, the paper will propose that the corporate objective function is ***stakeholder value maximization***. See Fig. 9.1.

In the next section, I will provide a brief overview of each theory and key criticisms they receive. I will then address three areas of particular concern: (i) treatment of stakeholder classes under the two theories, (ii) wealth creation and allocation from the perspectives of both theories, and (iii) the *'problem of justification*.[5] These areas form the foundation over which we can explicitly write the corporate objective function. In the final section, I will construct the function in three phases.

9.2 Definitions and Criticisms

> …the so-called debate is just a disagreement about how business actually works. There is no fundamental value disagreement here, just a disagreement about what it might mean to maximize profits… Freeman (2008: 165), in reference to the shareholder-stakeholder debate

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[4]As we will discuss later in detail, classification of stakeholders and how their claims are viewed will fundamentally impact the analysis.

[5]'*Why should the stakeholder theory be accepted or preferred over alternative conceptions?*' (Donaldson and Preston 1995: 73).

Shareholder value theory says that the purpose of a corporation is to maximize shareholder wealth. As Phillips, Freeman, and Wicks (2003: 498) write, there are multiple means for measurement of shareholder wealth (e.g., accounting profits, firm value, dividends, long- and short-term market value for shares). Sternberg (2001) defines it as long-term owner value while Jensen (2001: 8) prefers to define it in terms of firm value, where the firm value is the sum of the values of all financial claims on the firm—debt, warrants, and preferred stock, as well as equity. Whichever way shareholder wealth is measured, the shareholder supremacy argument is best summarized in the now-classic quote from Friedman's 1970 essay in the New York Times where he says; *'There is one and only one social responsibility of business—to use its resources and engage in activities designed to increase its profits so long as it stays within the rules of the game, which is to say, engages in open and free competition without deception or fraud.'*

On the other hand, s*takeholder theory begins with the assumption that values are necessarily and explicitly a part of doing business. It asks managers to articulate the shared sense of the value they create, and what brings its core stakeholders together* (Freeman et al. 2004: 364). According to Donaldson and Preston (1995: 87*), the ultimate justification for the stakeholder theory is to be found in its normative base. The plain truth is that the most prominent alternative to the stakeholder theory (i.e., the 'management serving the shareowners' theory) is morally untenable.*

Stakeholder value approach is criticized in several ways. It is argued that the sole responsibility of businesses is to make profits and obey the law—"the business of business is business!" Taking on greater social and environmental responsibilities than those legally mandated is only likely to increase costs and reduce efficiency (SIDA 2005: 16). Jensen (2001: 6) argues that it is logically impossible to maximize in more than one dimension; purposeful behavior requires a *single-valued objective function*. He further notes that the stakeholder theory makes managers unaccountable for their actions and can be attractive to the self-interest of managers and directors. According to Key (1999: 326), stakeholder theory, at its current form, lacks sufficient theoretical content and no specific theory logic has been identified which explains the relationships between stakeholders and the firm.

Shareholder value theory is not immune from criticisms as well. Some of the criticisms against the theory can be found in the work of Freeman et al. (2004: 366). According to them, proponents of this view distinguish the economic from the ethical consequences and values; therefore, the resulting theory is a narrow view. Secondly, maximizing shareholder value is not value-neutral and contains vast ideological content. At its worst, it involves using the prima facie rights claims of shareholders to excuse for violating the rights of others. A third criticism is that shareholder view is more susceptible to moral myopia, such that if managers' primary duty is to make money for shareholders, than it might be considerably easier for managers to rationalize questionable practices that place harm on non-shareholder stakeholders in the name of increased profitability.

The current debate is on whether to introduce stakeholder claims into the corporate objective function or not. The two theories provide opposing answers, but

why? The reason is related to how each theory views stakeholder claims. Are their claims *ends* in themselves (as in stakeholder value theory)[6] or are they *means* to satisfy other corporate objectives, such as shareholder wealth maximization. This *ends-or-means* distinction leads us to derivative questions: how should we classify stakeholders so that the differences between the two theories can be analyzed, how wealth creation is defined and allocation is decided under the two theories, and why should we chose shareholder or stakeholder view (the justification problem). I will address these questions in sequence.

9.3 Foundations for the Explicit Corporate Objective Function

9.3.1 Classifying Stakeholders

Freeman (1984: 46) defined the term as '*Stakeholder in an organization is (by definition) any group or individual who can affect or is affected by the achievement of the activities of an organization.*'

However, several differing definitions of the term evolved in the literature since then. A chronology of the definition of stakeholder by different authors can be found in the work of Mitchell et al. (1997: 858). As Post, Preston and Sachs (2002), rightfully suggest, the definition of Freeman has a problem since it would include, say, competitors whose interests are directly opposed to the focal corporation's interests, but can affect or be affected by it. Therefore, I am inclined to their definition of stakeholder;

> The stakeholders in a corporation are the individuals and constituencies that contribute, either voluntarily or involuntarily, to its wealth-creating capacity and activities, and that are therefore its potential beneficiaries and/or risk bearers Post, Preston and Sachs (2002:19).

I believe, the above definition, by making a distinction between *voluntary &involuntary* stakeholders, signals us that we need to identify and treat the two types of stakeholders in distinct ways. As Mitchell et al. (1997:853) suggest, different categorizations of stakeholders exist in the literature.[7]

I propose classifying stakeholders based on whether the costs (or benefits) are *internalized* in the pricing mechanism by the corporation. For example, wages, interest payments on loans, payments to suppliers, and taxes or revenue from

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[6]*each stakeholder group has a right to be treated as an end in itself, and not as means to some other end* (Donaldson and Preston 1995: 73).

[7]Such as; primary or secondary stakeholders; as owners and non-owners of the firm; as owners of capital or owners of less tangible assets; as actors or those acted upon; as those existing in a voluntary or an involuntary relationship with the firm; as rights-holders, contractors, or moral claimants; as resource providers to or dependents of the firm; as risk-takers or influencers; and as legal principals to whom agent-managers bear a fiduciary duty.

customers are all internalized in the income statement. Therefore, employees, creditors, suppliers, government, and customers can be classified under ***stakeholders of internalities***. As the residual profit is attributed to shareholders, we can also classify them under this category.[8] On the other hand, some stakeholders are ***stakeholders of externalities***, such as the local community or the environment, whose interests are not internalized.[9]

Under the shareholder theory, internality stakeholders are recognized and assumed to be fully compensated. This is done through the competitive markets assumptions that all participants who have transactions with a firm are willing participants in free and competitive markets and are fully compensated at fair market prices for their services/supplies or get fairly valued products/services for the prices they pay (Krishnan 2009:2). In this theory, external stakeholders do not exist. We will assume that stakeholder theory adheres to the competitive markets assumptions for internal stakeholders[10] and that the external stakeholders have legitimate claims.

Internality and externality stakeholder classification will determine how interests of each class of stakeholders will be represented in the corporate objective function. I will now turn to the questions of wealth creation and allocation.

9.3.2 Wealth Creation and Allocation

The two theories differ in defining *wealth creation* and criteria on wealth allocation. As Boatright (2006:116) notes, wealth must be created before it can be distributed. *Shareholder value theory* is straightforward. A corporation should make the decision based on whether an action is expected to create wealth (i.e. profit) to the corporation itself.[11] If the answer is 'yes', then the corporation will take the action and take all the wealth created.

Stakeholder value theory, on the other hand, concludes that, a corporation should initially assess whether an action is expected to create wealth to the corporation itself *and* then whether the action is expected to increase the wealth of all stakeholders combined. If the answers are 'yes', then the corporation will take the action.

[8]Shareholders are a corporation's 'residual claimants' in the sense that they are entitled to appropriate all (and only) the net assets and earnings of the corporation after all contractual claimants—such as employees, suppliers, and customers—have been paid in full (Armour et al. 2009: 25).

[9]Externality is a phenomenon that arises when an individual or firm takes an action but does not bear all the costs (negative externalities) or receive all the benefits (positive externalities) (Kaul et al. 1999: 509).

[10]It is possible to release that assumption and analyze its impacts, but this would be beyond the scope of this paper. We could call it as strong form of stakeholder theory. For example, are the wages paid to workers 'fair'?

[11]In the case of subsidies, even when an action is not profitable in itself, outcome may change.

Table 9.1 Wealth creation and allocation under the two theories, ($\beta > 0$)

Change in wealth of stakeholders	Potential outcome if factory is built	Corporate decisions under shareholder view	Corporate decisions under stakeholder view
$\alpha \geq 0$[a]	The factory will create wealth to both the corporation and the stakeholders. Absolute social wealth has increased	Build factory, take β	Build factory, take β
$-\beta \leq \alpha < 0$	The factory will create wealth for the corporation but destroy wealth of the stakeholders. Absolute social wealth has increased, *but* wealth allocation distorted	Build factory, take β	Build factory, compensate stakeholders by at least α. Take (β - compensation)
$\alpha < -\beta$	The factory will create wealth for the corporation but destroy wealth of stakeholders. Absolute social wealth has decreased *and* wealth allocation distorted	Build factory, take β	Do not build factory

[a]When α and β are both greater than zero, then we are in a situation what Porter and Kramer (2011) call 'shared value creation'. The concept can be defined as policies and operating practices that enhance the competitiveness of a company while simultaneously advancing the economic and social conditions in the communities in which it operates

Allocation of wealth will depend on the respective capacities for negotiation of all the parties involved and on their respective perceptions of the opportunity prices and costs (Charreaux and Desbrières 2001:5).

Let us clarify this argument with an example. A corporation considers building a factory in City A. The corporation first assesses that the project will create a value of β[12] for the corporation (where, $\beta > 0$). Let's assume there is only one external stakeholder group, the citizens of City A, and their interest (change in their wealth) as α. There are three possible value intervals that α can take, which will impact our analysis. Provided that there are no legal obstacles (requirement of both theories), Table 9.1 is on how adherents of each theory are expected to behave;

Based on the Table 9.1, we can conclude the below in terms of wealth creation and allocation.

In the **shareholder value theory**, shareholder interests override others. Provided that other considerations (such as reputation, marketing, and public relations) do not exist,[13] the decision will be to build the factory as long as β is greater than zero. Wealth created, β, will be taken by the corporation and thus the shareholders.

[12]β can be considered as accounting profit, (total revenue minus total costs), or economic profit (where cost of capital is also factored in), as we will discuss later.

[13]To the extent we release this constraint, the shareholder value adherents will converge to stakeholder approach.

Nonshareholder stakeholders may benefit, as in scenario 1, or lose, as in scenarios 2 and 3; however, these are not the concerns of the corporation.

In the **stakeholder value theory,** more has to be taken into consideration for a decision to be made. In terms of wealth creation: When $\beta > 0$ *and* $-\beta < \alpha$, we are in a state that the total welfare of all stakeholders combined has increased. Therefore, the factory will be built in scenarios 1 and 2, but will not be built in scenario 3. In terms of wealth allocation: In the first scenario where $\alpha \geq 0$, corporation will take β and stakeholders will take α.[14] In the second scenario where $-\beta \leq \alpha < 0$, the level of compensation will depend on negotiation (with a minimum of α). In the third scenario, there is no extra wealth that can be used to compensate the stakeholders.

Note that the citizens of City A are external stakeholders. As said earlier, through the competitive markets assumption, interests of internal stakeholders are already incorporated in the β of the corporation. Therefore, I will limit α to stakeholders of externality and assume the interests of internal stakeholders are already represented in β. *The differing outcomes of the two theories stem from the treatment of internalization of costs by the corporation.* ***That is to say, if the corporation were to internalize α, then automatically the stakeholder theory would collapse to the shareholder theory.***

Many critiques of the stakeholder theory argue that the theory does not provide a criterion for making decisions. For example, in his critique of the stakeholder value theory, Jensen (2001: 13) says *'...Any theory of corporate decision-making must tell the decision-makers, in this case managers and the board of directors, how to choose among multiple constituencies with competing and, in some cases, conflicting interests... Obviously, any decision criterion—and the objective function is at the core of any decision criterion—must specify how to make the tradeoffs between these demands'.*

However, I believe, and as can be seen in the above example, the **stakeholder theory provides a decision criterion** on whether to build the factory or not, through an extended version of the shareholder value criterion: $\beta > 0$ *and* $-\beta < \alpha$. Incorporation of α may make the maximization issue more complex, but we find justification for complexity in Jensen's (2001: 11) own words in defending the single objective function;

> … But even in these situations [when the function is non-monotonic, or even chaotic], the meaning of "better" or "worse" is defined, and managers and their monitors have a "principled"—that is, an objective and theoretically consistent—basis for choosing and auditing decisions… It is not necessary that we be able to maximize, only that we can tell when we are getting better—that is moving in the right direction.

[14] However, there might be negotiation due to *relative* increases in wealth. Wealth allocation may depend on the proportional wealth increase on the corporation versus the stakeholders. In the above example, if α is, say, 0.001, and β is 1, then the corporation may be asked to provide extra benefits to the stakeholders. For an interesting analysis on the impact of relative income, see Layard et al. 2009.

In summary, under the stakeholder value theory, as long as the action is expected to create wealth to the corporation, ($\beta > 0$), *and* the created wealth for the society is greater than zero, ($\alpha + \beta > 0$), decision for action will be taken, i.e., build the factory. The stakeholder theory provides the basis of wealth allocation as well. I now wish to briefly address the process in determining the actual portion of each stakeholder. I should also add that the below logic would apply to shareholder value theory, when other considerations (such as reputation, marketing, and public relations) are taken into account.[15]

Many prominent scholars have contributed to the contract theory, and it would be much beyond the scope of this paper to try to elaborate on them; however, I want to highlight their common focus: the—explicit and implicit—***contracts.*** Jensen and Meckling (1976) say that contractual relations are the essence of the firm, not only with employees but with suppliers, customers, creditors, and so on. The firm-as-contract view holds that legitimate stakeholders are identified by the existence of a contract, expressed or implied, between them and the firm (Donaldson and Preston 1995: 85). Eisenhardt (1989: 59) argues that the unit of analysis in agency theory is the contract between principal and agent. According to Williamson (1985: 20), transaction cost economics poses the problem of economic organization as a problem of contracting. Some contracts, say between a firm and its neighboring community, are relatively vague and informal; certainly, no documents exist to describe these contracts. At the other end of the spectrum are formal and specific contracts; the contract between a firm and its bondholders is an example (Jones 1995: 409). Managers have few options in meeting the terms of explicit contracts while they have much more discretion in satisfying implicit contracts (Ruf et al. 2004). Since implicit claims generally have no legal standing, the economics literature has analyzed them as self-enforcing relational contracts (Bowen et al.1995: 3). Introduction of implicit contracts to the nexus-of-contracts definition of the firm is critical, since this rationalizes the stakeholder theory; defining the firm as a nexus of explicit and *implicit* contracts might seem like a minor variation, but in fact it changes the conceptual framework in a dramatic way (Zingales 2000).

Power, legitimacy, and urgency of stakeholder claims, as defined by Mitchell et al. (1997), will determine the negotiation capacities of the parties involved and the provisions of contracts. The perception of management on how each stakeholder group possesses these attributes will also impact the outcome. We can find other potential determinants in the literature, but I believe the above three attributes implicitly contain them. Some of these can be found in Hill and Jones (1992); the power differentials among the participants (a condition of unequal dependence between the parties to an exchange), diffusion of stakeholder power, effectiveness of enforcement mechanisms (law, exit, and voice as deterrents), concentration of management power, limitations on access to information (asymmetric information), and trust (Pirson and Malhotra 2010) between the corporation and stakeholder. The

[15]This is the same logic where Jensen (2001) terms enlightened value maximization or enlightened stakeholder theory.

trust of the stakeholder will be based on the corporation's perceived *motivation* and *ability* to behave in ways that benefit the stakeholder.

Note that external stakeholders, without having some form of power, legitimacy or urgency,[16] will not have the base for claiming a contract; they will not possess any capacity for negotiation. Therefore, it will be necessary to provide them with some combination of the three attributes. For example, in cases where neighborhood sued nuclear power plants in Japan, courts granted them standing but dismissed on the merits (Ramseyer 2011).[17] I believe the Coase theorem[18] signals such a base by requiring property rights and liabilities being defined.

The theorem states that in a world with zero transaction costs, initial rights allocations are unimportant; they will be transferred to their highest-value use through private Coasean bargains. Thus, in the present context, if an action taken by a corporation harms one group of stakeholders more than it helps another, the former group will bribe the latter group to abandon the action in question. Maximizing the residual claim maximizes the size of the corporate pie. The way this pie will be allocated among the firm's various stakeholders will depend on the Coasean bargains they work out with one another (Bradley et al.1999: 38). Coase Theorem may provide justification to external stakeholders' claims, which brings us to the next question on the problem of justification.

9.3.3 *The Problem of Justification*

> The underlying epistemological issue in the stakeholder literature is the problem of justification: Why should the stakeholder theory be accepted or preferred over alternative conceptions? (Donaldson and Preston 1995: 73)

[16]Urgency by itself is not sufficient to guarantee high salience in the stakeholder——manager relationship. For example, neighbors of a nuclear power plant that is about to melt down have a serious claim on that plant, but they may not be aware of the time pressure and criticality and, thus, may not act on their claim. (Mitchell et al. 1997: 870).

[17]Neighbors also tried to earn legitimacy and power by buying stocks in the corporation. When the cooling system in one of the Daini reactors malfunctioned in 1989, they sued Tokyo Electric as shareholders to shut it down. Only then, they argued could the firm avoid irreparable harm to itself. The court dismissed their claim. Whether to restart a damaged reactor was a question on which the firm's board could turn to specialists. If those specialists thought it appropriate to restart the reactor, it could properly restart it (Ramseyer 2011: 9).

[18]Coase Theorem is the assertion that if property rights and liability are properly defined and there are no transaction costs, then people can be held responsible for any negative externalities they impose on others, and market transactions will produce efficient outcomes. (Kaul et al. 1999: 509). Coase Theorem holds that regardless of the initial allocation of property rights and choice of remedial protection, the market will determine ultimate allocations of legal entitlements, based on their relative value to different parties (Parisi 2007: 1).

Addressing the justification problem is critical, since it will allow us to justify the proposed modification to the corporate objective function. I start with the following question: '*How can management justify its decisions in the eyes of shareholders?*'

Recalling our example above, let's consider the manager of the corporation in scenario 3 ($\alpha < -\beta$), with the responsibility to make the decision.[19] What would be the manager's decision, knowing that the shareholders may fire him/her? In addition to the actual business decision to be made, he or she will probably also consider other questions: i.e., if I am fired, will the stakeholders defend me? Do they have the motivation and ability to do so? If I am fired, will the shareholders of other corporations hire me again?

It is often said that the stakeholder theory is managerial. However, in the current system, the management *alone* does not have the necessary tools to act in accordance with the stakeholder theory. The hands of management must be strengthened in order to make/enable them to act in accordance with the stakeholder perspective. I see three potential sources who can provide these tools: *government, society* (especially customers), and *shareholders*.

Government is the only stakeholder who has a privilege over the shareholders, by bringing penalties that are harsher than being fired. The threat of penalty, not only makes management make decisions in line with laws, but also strengthens their hands against the shareholders in protecting the rights of other stakeholders. Therefore, government involvement/regulation is a justification tool.

Additional justification tools for management to protect other stakeholders may come from the *society*. For example, a threat of boycott by customers can be a powerful tool for managers to justify their decision, who wish to act in accordance with the stakeholder theory. As the boycott will impact the profit, shareholder theory adherents will also accept this justification. This is the 'instrumental' variation of the stakeholder value theory, when managers attend to stakeholders as a *means* to achieving other organizational goals, such as profit or shareholder wealth maximization (Phillips et al. 2003: 479).

In fact, government and society pressures internalize the costs, and as I said earlier, internalization of costs makes the two theories converge. However, disputes remain due to the *ends-means* distinction, as also discussed earlier. From the shareholder value perspective, if the information that may lead to a boycott is not known to the customers who may boycott the corporation, then the corporation does not need to change its behavior. Even if it were known, unless customers have the motivation *and* ability to boycott, the corporation would not change its behavior either. However, from the stakeholder value perspective, since each stakeholder's claim is an end in itself, the corporation would by definition act in the stakeholders' best interest.

The result of the analysis is that the management *alone* cannot make the shift to stakeholder supremacy. Either legal or social elements should evolve to strengthen

[19]Other hypothetical exercises can also be made. For example, how would you react to such a manager (who decided not to build the factory) if you were the shareholder of the corporation?

the hands of management (or compel them) to pursue stakeholder value. Alternatively—or additionally—a change in the attitudes of *shareholders* should arise; for example, socially responsible investments may act as a tool to change corporate behavior. This section addressed the question of *how* external stakeholders' claims may be justified.

We can now start constructing the corporate objective function. The function should have properties that address the three previously listed areas. First, it should represent claims of external and internal stakeholders; second, it should define wealth creation and allocation under the two theories; third, it should create the base for discussions on the justification problem.

9.4 The Corporate Objective Function

> Just as the separation of the owner-manager-employee required a rethinking of the concept of control and private property as analyzed by Berle and Means (1932), so does the emergence of numerous stakeholder groups and new strategic issues require a rethinking of our traditional picture of the firm. We must redraw the picture in a way that accounts for the changes. (Freeman 1984: 24)

The corporate objective function stands at the center of the shareholder versus stakeholder debate. Though it is mentioned in numerous studies, it was surprising not to see an explicit function in a literature review.[20] In constructing the function, this paper starts with a proposition: ***the perception of the purpose of the firm has passed (and is still passing) through three phases.***

9.4.1 Phase I: Profit Maximization in Accounting Sense

In this phase, the aim of a corporation is to maximize its accounting profits. Accounting profit is calculated as total revenue minus total costs. Though it may seem primitive, this understanding still has a place in our daily lives; for example, the taxes are calculated based on this understanding of profits. The function is well-known;

$$\mathbf{\Pi} = \mathbf{P}.\mathbf{Q} - \mathbf{TC},$$

where; **Π**: Profit, **P**: Price, **Q**: Quantity and **TC**: Total Cost

Taking the derivative of the function with respect to Q, and setting equal to zero, we find the maximum is reached at P = MC. Assuming a perfectly competitive

[20]Jensen (2001: 11) provides a general outline of a possible multiple objective functions; however his variables are not stakeholder oriented, such as cash flow, risk and so on.

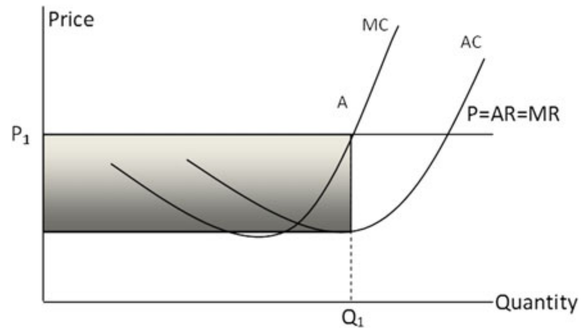

Fig. 9.2 Phase I: Profit maximization in accounting sense

environment in the short term, the graph of the analysis will be as below. Price is determined in the market and therefore it is a given for any corporation, P_1, and the production level is Q_1. The shaded area in Fig. 9.2 is the accounting profit.

However, the accounting profit does not take the cost of capital into account and thus fails in capturing the whole picture. We therefore need to modify the function to incorporate the cost of capital.

9.4.2 *Phase II: Shareholder Value Maximization (Economic Profit Maximization)*

With the introduction of the concept of opportunity cost, the understanding of profit has changed. Accounting profit was no longer seen as satisfactory. With this change in the perspective, shareholders claimed that the purpose of a corporation is to maximize economic profit. Economic profit is calculated by accounting profit minus opportunity cost. In order to illustrate this point, I will refer to the Economic Value Added (EVA) model.[21] EVA measures the dollar surplus value created by a firm on its existing investment. Damodaran (2002: 864) provides the below equation for EVA.

Economic Value Added = After tax operating income-(Cost of Capital) (Capital Invested)

EVA will not be analyzed in this paper, as the aim is to show the logic behind the shareholder value. What matters for this paper is the fact that EVA explicitly incorporates cost of capital into the function.[22] Maximizing this modified profit function will mean maximizing shareholder value. The modified function will be:

[21]Stern Steward & Co, intellectual property owner of EVA, defines it as a measure of economic profit.

[22]EVA defines the cost of capital as the weighted average cost of Debt and Equity Capital ("WACC"), but this does not change our analysis.

$$\Pi = [(\mathbf{P}.\mathbf{Q} - \mathbf{TC})(\mathbf{1} - \mathbf{t})] - \mathbf{C_k}.\mathbf{K},$$

where C_k *is the cost of capital, K is the capital invested, and t is tax rate.*

It should be noted that, K, the capital invested will have fixed and variable components, where the variable component will increase as the output increases. Therefore, we can write K = a + b.Q and rewrite the above function as:

$$\Pi = [(\mathbf{P}.\mathbf{Q} - \mathbf{TC})(\mathbf{1} - \mathbf{t})] - \mathbf{Ck}.(\mathbf{a} + \mathbf{b}.\mathbf{Q})$$

For simplicity reasons, assuming t as zero and C_k as constant and taking the derivative with respect to Q, we find P = MC + C_k.b. This shows us that, the shareholder-maximizing equilibrium will stand at a point where the price is equal to MC (in the accounting sense) plus the marginal cost of capital. The graph of the above revised function will be Fig. 9.3 as below.

Under the shareholder value theory, the marginal cost curve will shift leftward in an amount of the cost of capital. Accordingly, the maximizing level of output will be at Q_2 at P_1. However, if the cost of capital is not factored in, as in the case of accounting profit maximization, the output will be at Q_1. The shaded area shows the shareholder value destroyed by producing at Q_1 rather than Q_2. The shareholder value approach explicitly addresses the wealth of shareholders. However, this is not the total value created by the firm and excludes benefits/costs to external

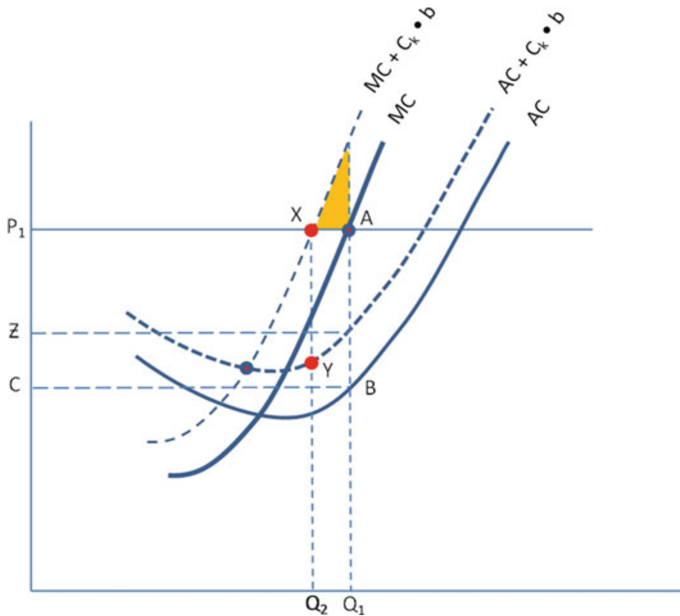

Fig. 9.3 Phase II: Shareholder value maximization (economic profit maximization)

stakeholders. As Bebchuk (1992) writes, from the perspective of efficiency, the socially desirable rule is the one that maximizes the aggregate wealth of society's members. As said earlier, we can assume that shareholder value approach addresses the costs/benefits to the stakeholders of internality; wages, interest payments, payments to suppliers are all included in the total cost, taxes are deducted from gross profit, and receipts from the customers are recorded in the total revenue. However, this approach does not answer the situation of external stakeholders; in fact, it assumes their interests as zero. Recalling the earlier example, this interest corresponds to α of the citizens of City A. The so-called externalities or third-party effects vitiate the claim that the freedom of individuals to enter into voluntary, mutually beneficial contracts will result in the optimal allocation of society's resources (Bradley et al. 1999: 39). I will now take the discussion one step further and search for ways to modify the corporate objective function, so that the external stakeholders and their interests can also be included.

9.4.3 Phase III: Stakeholder Value Maximization

> … Since the industrial revolution, firms have sought to internalize the benefits and externalize the costs of their actions… (Freeman 2004: 41)

As discussed earlier, in the stakeholder theory, distinct from the shareholder theory, we need to incorporate an externality component into the corporate objective function. All other interests are already internalized in the shareholder value maximization function. Obviously, this is simplification: stakeholders of internality have *explicit and implicit contracts* with the corporation (Stout 2002: 1196). Employees work, in part, for wages (explicit contract), but they may also expect that they may also get raises, job security and promotion (implicit contract). However, whether by implicit or explicit contracts, their interests are assumed to be represented in the internality portion of the corporate objective function. However, within the shareholder value theory, there is no contract with the external stakeholders, neither implicit nor explicit.

The firm's social responsibility is sometimes viewed even more broadly to include the protection of stakeholders who do not have a contractual relationship with the firm; namely, the firm should refrain from bribing officials in less developed countries even if the probability of being caught is small, or from polluting when pollution taxes or permits are not yet put in place. In a nutshell, the firm should internalize the externalities on the various stakeholders (Tirole 2000: 29). We need to incorporate a portion that will represent the interests of the external stakeholders.

> Two hundred years of work in economics and finance implies that in the absence of externalities and monopoly, (and when all goods are priced), social welfare is maximised when each firm in an economy maximises its total market value (Jensen 2001: 6).

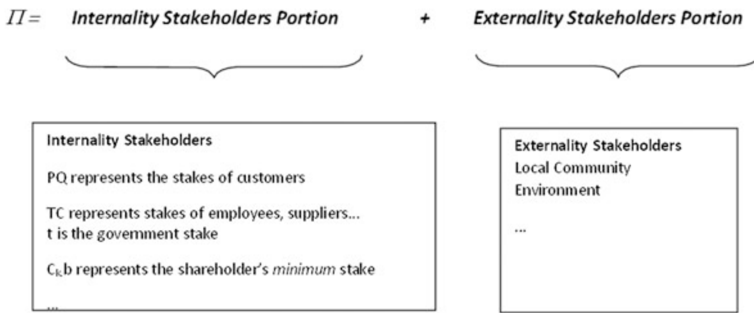

Fig. 9.4 Corporate objective function

As can be seen in Jensen's words, by assuming absence of externalities and that all goods are priced, the shareholder theory assigns a zero value to the portion of external stakeholders in the corporate objective function. **If you accept that argument, then stakeholder theory collapses to shareholder theory.** However, the portion of the external stakeholders must also be taken into account from the stakeholder value perspective. As a result, the corporate objective function should look like as in Fig. 9.4 below[23];

In the earlier hypothetical corporation, interests of internal stakeholders' portion would be represented in the calculation of β and external stakeholders' portion would be α.

Actions of corporations may impact their external stakeholders in different domains. In order to be in parallel with the CSR terminology, I will name these domains as economic, social, and environmental. BIS (UK Department for Business Innovation and Skills) define CSR as '*... how companies address the social, environmental and economic impacts of their operations and so help to meet our sustainable development goals.*' Note that other definitions by different institutions and authors also address it in similar ways. Taking these three domains as the basis, the corporate objective function can be revised to include impacts as below:

$$\Pi = [(\mathbf{P.Q}-\mathbf{TC})(\mathbf{1}-\mathbf{t})]-\mathbf{Ck}.(\mathbf{a}+\mathbf{b.Q})+(\mathbf{E_{econ}}+\mathbf{E_{soc}}+\mathbf{E_{env}})$$

where $E_{\mathbf{econ}}$ is economic externalities, $E_{\mathbf{soc}}$ is social externalities, and $E_{\mathbf{env}}$ is environmental externalities. For simplicity, I will use E to denote all three types of externalities. Taking the derivative with respect to Q, we find:

$$\Pi = \mathrm{MC}-\mathrm{Ck.b}+\mathrm{dE}/\mathrm{dQ}$$

[23]Note that it is possible to analyze the portion of internality stakeholders' interests under two sub-portions based on explicit and implicit contracts.

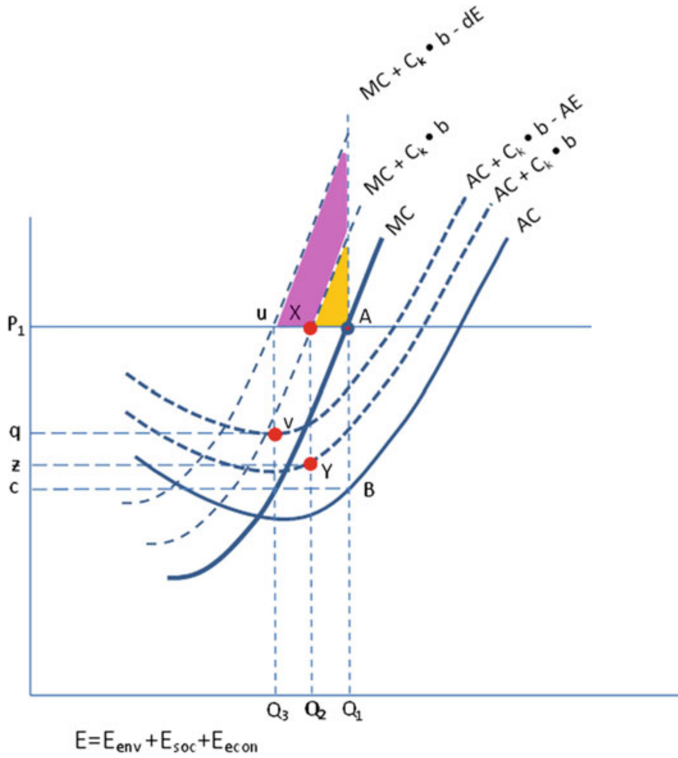

Fig. 9.5 Phase III: Stakeholder value maximization

It should be noted that the economic, social, and environmental externalities may be negative or positive. If there is negative externality, it will be assigned with a negative sign. Above is the graph of the function, assuming there is negative externality (Fig. 9.5).[24]

Under the stakeholder value theory, the marginal cost curve will further shift leftward in an amount of the negative externality. With positive externality, the curve would move rightward. Accordingly, the maximizing level of output will be at Q_3 at P_1. However, if the externality impacts are not factored in, as in the case of accounting profit maximization, the output will be at Q_1 at P_1. The dark shaded area shows the stakeholder value destroyed by producing at Q_1 rather than Q_3. Please also note that the size of the areas do not necessarily show the size of the shareholder value loss relative to the size of the stakeholder value loss.

[24]We follow the parallel logic for 'adjustment for external costs' graph (Musgrave and Musgrave 1989: 51).

Obviously, there will be the problem of measurement, i.e., the corporation and the stakeholders will attribute different values for α. However, as referred to Jensen's own words earlier, '… *it is not necessary that we be able to maximize, only that we can tell when we are getting better—that is moving in the right direction.*'

9.5 Conclusion

This paper attempts to write an explicit corporate objective function. This has the potential to address several questions surrounding the shareholder versus stakeholder supremacy debate. First, such an explicit function may create an analytical foundation for the debate. Additionally, it may assist in addressing issues such as: under which conditions the two theories converge and why each theory advises management to act differently in similar business conditions?

Before constructing the explicit corporate objective function, this paper has addressed three issues, which, in my view, is necessary to set the base for the function. I have proposed to classify stakeholders as internal and external stakeholders. This classification enabled us to present why and how the two theories define wealth creation and allocation. This paper also provided a hypothetical case to illustrate the differences. The justification problem is also discussed, which is critical in understanding the differences and outcomes of the two theories. Following the investigation of the three areas, constructing the explicit corporate objective function started.

In constructing the function, I started with a proposition: *the perception of the purpose of the firm has passed (and is still passing) through three phases*—(i) accounting profit maximization, (ii) shareholder value (economic profit) maximization, and (iii) stakeholder value maximization. I hope the proposed function will be regarded as starting point that may inspire others to further investigate such an explicit function.

CSR can be defined as 'the responsibility of enterprises for their impacts on society.' By addressing the claims of the stakeholders, CSR aims at enhancing the economic, social, and environmental welfare of the society. As stakeholders are the key for CSR, the shareholder vs stakeholder debate can be expected to further the works on CSR.

I believe further studies by releasing some of the assumptions in this paper may bring new insights into the debate. For example, what will be the impact of releasing the assumption of competitive markets for internal stakeholders under the stakeholder theory? i.e., should we discuss whether the wages paid by contracts are fair or not? Would such a move require us to differentiate between two forms of stakeholder value theory (strong and weak forms)? Further, what would be the implications of introducing implicit/explicit contracts classification into the theories? I hope the paper will ignite further discussions.

References

Agle BR, Mitchell RK (2008) Introduction: Recent research and new questions. In Dialogue: Towards superior stakeholder theory. Bus Ethics Q 18(2):153–159

Armour J, Hansmann H, Kraakman R (2009) The essential elements of corporate law: What is corporate law? Discussion Paper, Harvard John M. Olin Center for Law, Economics, and Business

Bebchuk LA (1992) Federalism and the corporation: the desirable limits on state competition in corporate law. Harvard Law Rev 105(7):1443–1510

BIS http://www.bis.gov.uk/policies/business-sectors/low-carbon-business-opportunities/sustainable-development/corporate-responsibility, 29 Dec 2011

Boatright John R (2006) What's wrong—and what's right—with stakeholder management. J Private Enterp 21(2):106–130

Bowen RM, DuCharme L, Shores D (1995) Stakeholders' implicit claims and accounting method choice. Working Paper, University of Washington

Bradley M, Schipani CA, Sundaram AK, Walsh JP (1999) The purposes and accountability of the corporation in contemporary society: corporate governance at a crossroads. Law Contemp Probl. 62(3, Summer): 9–86

Carroll AB (1999) Corporate social responsibility, evolution of a definitional construct. International Association for Business and Society

Charreaux G, Desbrières P (2001) Corporate governance: stakeholder value versus shareholder value. Université de Bourgogne

Damodaran A (2002) Investment Valuation, 2nd edn. John Wiley & Sons, New York

Donaldson T, Preston LE (1995) The stakeholder theory of the corporation: Concepts, evidence, and implications. Acad Manage Rev 20(1):65–91

Eisenhardt KM (1989) Agency Theory: an assessment and review. Acad Manage Rev 14(1):57–74

European Commission (2011) Communication From The Commission To The European Parliament, The Council, The European Economic And Social Committee And The Committee Of The Regions A Renewed EU Strategy 2011–14 For Corporate Social Responsibility, http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52011DC0681 24 Jan 2016, p 6

Fisch JE (2006) Measuring efficiency in corporate law: The role of shareholder primacy. J Corporation Law (spring): 637–674

Freeman RE (2008) Ending the so-called 'Friedman-Freeman' debate. In Dialogue: towards superior stakeholder theory. Bus Ethics Q 18(2):162–166

Freeman RE (1984) Strategic management: A stakeholder approach. Pitman, Boston

Freeman RE, Wicks AC, Parmar B (2004) Stakeholder theory and 'the corporate objective revisited'. Organ Sci 15(3):364–369

Freeman ER (2004) Stakeholder theory of the modern corporation. Ethical Theory and Business, p 38–48

Freeman RE, McVea J (2001) A Stakeholder Approach to Strategic Management. Working Paper, University of Virginia

Friedman M (1970) The social responsibility of business is to increase its profits. The New York Times Magazine, 13 Sept

Global Reporting Initiative https://www.globalreporting.org/resourcelibrary/GRIG4-Part1-Reporting-Principles-and-Standard-Disclosures.pdf, p 3

Hill CWL, Jones TM (1992) Stakeholder-Agency theory. J Manage Stud 29(2):131–154

Ho VH (2010) "Enlightened Shareholder Value": Corporate Governance Beyond the Shareholder-Stakeholder Divide. University of Kansas

ISO (2014) http://www.iso.org/iso/discovering_iso_26000.pdf, 24 Jan 2016

Jensen MC (2001) Value maximization, stakeholder theory, and the corporate objective function. Working Paper, The Monitor Company, Harvard Business School & Amos Tuck School at Dartmouth College

Jensen Michael C, Meckling William H (1976) Theory of the firm: managerial behavior, agency costs and ownership structure. J Financ Econ 3(4):305–360

Jones TM (1995) Instrumental stakeholder theory: a synthesis of ethics and economics. Acad Manage Rev 20(2):404–437

Kaul I, Grunberg I, Stern MA (1999) Global Public Goods. Oxford University Press

Key Susan (1999) Toward a new theory of the firm: a critique of stakeholder "theory". Manage Decis 37(4):317–328

Krishnan VS (2009) Stakeholders, shareholders and wealth maximization. University of Central Oklahoma

Kristoffersen I, Gerrans P, Clark-Murphy M (2005) The corporate social responsibility and the theory of the firm. Working Paper, Edith Cowan University

Layard R, Mayraz G, Nickell S (2009) 'Does relative income matter? Are the critics right?'. Working Pape, Deutsches Institut für Wirtschaftsforschung

Mitchell RK, Agle BR, Wood DJ (1997) Toward a theory of stakeholder identification and salience: defining the principle of who and what really counts. Acad Manage Rev 22(4): 853–886

Musgrave RA, Musgrave PB (1989) Public Finance in Theory and Practice. McGraw-Hill

OECD http://www.oecd.org/corporate/mne/corporateresponsibilityfrequentlyaskedquestions.htm, 24 Jan 2016

Parisi F (2007) Coase Theorem. Research Paper, University of Minnesota

Phillips R, Freeman RE, Andrew C, Wicks AC (2003) What stakeholder theory is not. Bus Ethics Q 13(4):479–502

Pirson M, Malhotra DK (2010) Antecedents of stakeholder trust: What matters to whom? Working Paper, Fordham University

Porter ME, Kramer MR (2011) Creating share value. Harvard Bus Rev (Jan/Feb): 1–17

Post JE, Preston LE, Sachs S (2002) Redefining the corporation, stakeholder management and organizational wealth. Stanford University Press

Ramseyer JM (2011) Why power companies build nuclear reactors on fault lines: The case of Japan. Discussion Paper, Harvard Law School

Ruf BM, Meade-Christie NL, Brown RM (2004) The relationship between the existence of antitakeover devices and corporate social performance. Acad Account Financ Stud J 8(2):9–22

SIDA 2005 Guidelines for Sida's support to corporate social responsibility. Position Paper, Swedish International Development Cooperation Agency

Stern Steward & Co. http://www.sternstewart.com/?content=proprietary&p=eva, 29 Dec 2011

Sternberg E (2001) The stakeholder concept: a mistaken doctrine. Foundation for Business Responsibilities

Stout LA (2002) Bad and not-so-bad arguments for shareholder primacy. Research Paper, University of California

Sundaram AK., Inkpen AC (2001) The corporate objective revisited

Tirole J (2000) Corporate governance. Working Paper, Center for Economic Institutions

US SIF—The Forum for Sustainable and Responsible Investment, http://ussif.org/resources/sriguide/srifacts.cfm, 21 Jan 2012

Williamson O (1985) The economic institutions of capitalism. The Free Press, New York

Zingales L (2000). In search of new foundations. Working Paper, University of Chicago