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From Multifunctionality and Sustainability of Agriculture to the Social Responsibility of the Agri-food System

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Abstract:

With regard to the agri-food system, we investigate the relationship between the concepts of multifunctionality and sustainability of agriculture and the concept of corporate social responsibility (CSR). The latter provides a theoretical link between the views on agriculture's multifunctionality and sustainability, and between their welfare economic and capital-theoretic foundations. It encompasses a wider range of societal concerns and actors involved. Those are environmental and socio-economic impacts of food production, processing and trade, the double role of citizens as consumers and tax payers, agri-food chain governance and the role of market power that allows downstream companies in this value chain to absorb tax money and resource rents. All these issues must be taken into account when assessing the agri-food system from a sustainable development perspective. In sum, this underlines the need of developing a broader perspective that involves concern about the social responsibilities and performance of all actors along this value chain. Building on this background, we propose the concept of CSR to complement those of multifunctionality and sustainability in order to contribute to a more enlightened debate on agricultural and food policy and its contribution to sustainable development.

Keywords:

agricultural policy, multifunctionality, sustainability, social responsibility, market power, agri-food chain, governance

JEL classification: D62, D63, Q01, Q18

1. Introduction

Multifunctionality and sustainability have been guiding principles in agricultural policy since the late 1980s. Originally, they have been established as key concepts of sustainable agriculture and rural development (SARD) in Agenda 21, which called all nations for a review of agricultural policy in the light of the multifunctional aspects of agriculture and integrating sustainable development considerations in agricultural policy and planning (UNCED, 1992). As a consequence, multifunctionality and sustainability have been adopted in many countries as policy principles, which have subsequently attracted academic and applied research in various domains of resource management, especially in the areas of agriculture and agricultural policy. In particular, the adoption of the two principles in agricultural policy fostered academic and political debates about the role of agriculture in society.

Above all, the notion of multifunctionality refers to the fact that agriculture – beyond its primary function of supplying food and fibre – provides various benefits to society in the environmental and socio-economic realms. It is used by various countries as an argument for continued government support to agriculture; a position which is frequently supported with the additional line of reasoning that a multifunctional agriculture constitutes a path to sustainability or sustainable development (cf. Caron et al., 2008; IAASTD, 2008). This argumentation has been logically derived – but without profound theoretical considerations – simply from the fact that the various functions of agriculture can be related to the three dimensions of sustainable development in the social, economic and ecological domains, respectively. However, the works of the OECD (2001a), Caron et al. (2008) and Hediger and Knickel (2009) reveal major differences the epistemological and theoretical foundations of the two concepts. According to the OECD (2001a), multifunctionality is a characteristic of the production process that can have implications for achieving multiple societal goals. In contrast, sustainability is a goal-oriented principle of conservation that is the most usefully conceptualized in terms of capital theory. Depending on the assumptions about substitutability of resources and the normative position taken, the latter implies a constraint on resources management saying that a certain stock of capital (total or natural capital) should not diminish over time. This relates to the concepts of weak and strong sustainability (cf. Hediger, 1999,

2000, and Neumayer, 1999, 2013, for example) that are both grounded on the WCED's (1987) path-breaking work on sustainable development, which provided an important transformation of earlier conceptions of physical sustainability and nature conservation to the socio-economic context development (Adams, 1990). This does not imply a static concept of conservation («sustainability»), but calls for finding a balance between conservation and change («sustainable development»). Accordingly, sustainable development requires a continuous evaluation of tradeoffs across the various system goals (Barbier, 1987; Hediger, 2000). Obviously, this is not restricted to agriculture and rural development. Rather, the objectives and concerns of agricultural sustainability and multifunctionality must be integrated in the broader concept of sustainable development. Hence, the multiple functions and roles of agriculture in our societies must be seen from a broader systems perspective of sustainable development that integrates agricultural production into the entire agri-food chain and that accounts for citizens' concerns about the impacts of the agri-food system upon society and the environment. In other words, the economic, social and environmental performance of the various actors along the respective value chains, from the producers to the consumers, must be considered in a comprehensive approach. On the company level, this view is related to the concept of corporate social responsibility (CSR) that has a long tradition in the business ethics and management literature and that gained new momentum in recent years. It is high on the policy agenda of the OECD (2001b), the European Commission (EC, 2001) and numerous national governments, and, most importantly, it is increasingly considered in the business world.

CSR has been particularly promoted by the World Business Council for Sustainable Development (WBCSD) as an integral part of sustainable development and been defined as the commitment of business to contribute to sustainable economic development (Holme and Watts, 2000). Accordingly, CSR is a business approach which directly serves the goals of sustainable development. Thus, from a CSR perspective, attention must be paid to the same social, ecological and economic concerns as for sustainable development.

Hence, the question arises about the relationship between the three concepts of multifunctionality, sustainability and corporate social responsibility, and whether the latter can be usefully adapted to the agri-food sector and agricultural policy debates:

- Can the concept of CSR be applied to agriculture in order to replace or complement the concept of multifunctionality?
- Can this provide a new basis for the analysis of the roles of agriculture in society and governmental support to farmers?
- Can such a shift of paradigm help to ease the policy debate about the roles of agriculture in society and bring this debate on a new analytical ground?

In this article, we investigate these key questions and consider the adaptation of the CSR as a new guiding principle for agricultural policy and agri-food business. The aim is to present and discuss the idea of applying the concept of social responsibility of business in order to replace or complement the concept of multifunctionality and hopefully contribute to a more enlightened policy debate. In section 2, we briefly review the concepts of multifunctionality and sustainability from an economics perspective. This reveals the welfare economic aspects that are associated with the positive and negative externalities as well as those associated with the distribution effects of agricultural activities and policy. Furthermore, we accentuate the capital theoretic aspects that are crucial for the evaluation of agriculture's multifunctionality from a sustainable development perspective.

In section 3, we illuminate some basics of corporate social responsibility (CSR). The latter is generally defined as a program of action where a firm's objective is to maximize its profits and, at the same time, to contribute to the improvement of social welfare (Beltratti, 2005). This involves joint consideration of two important sources of market imperfection: externalities and distributive fairness (Heal, 2005). Those are generally regarded as major threats to a company's reputation capital, and thus of its corporate value in the long run. Accordingly, economists see the role of CSR as a means to anticipate and minimize conflicts between corporations and society. In other words, CSR can help to improve corporate profits and guard against reputational risks (Hediger, 2010).

Building on this background, analogies between the concepts of multifunctionality, sustainability and CSR are explored in section 4. Given the /aforementioned key questions, the concept of social responsibility is regarded particularly in the light of public expectations and government support to farmers, and under consideration of the fact that there exist different degrees of bargaining power along the agri-food chain. The first issue is directly related to the con-

cept of multifunctionality as a policy-related principle. However, from a CSR perspective, it is important to bear in mind that citizens interact with the agri-food chain at both ends:

- As tax payers, they are the «shareholders» of agriculture who provide the financial means for government support to agriculture.
- As consumers, they are the classical stakeholders who buy the products of agriculture and face the externalities of agricultural activity.

However, citizens do not in general have direct interaction with the farmers, but with retailers at the end of the agri-food chain and with government agencies that collect the tax money and transfer it to the farmers. Depending on market power, these transfer payments (or subsidies) can be absorbed to some extent by non-farmers along the agri-food chain. As a consequence, the resulting distribution of income may deviate from the intention behind the provision of public support to farmers, which presumably involves allocative as well as distributive motives. In this light, the vertical markets of the agri-food sector constitute an interesting field of application of the concept of corporate social responsibility. Moreover, the concept of CSR can provide an enhanced analytical basis for the evaluation of the social performance of agriculture and the agri-food chain.

2. Multifunctionality and sustainability

Originally formulated in the context of forest management, the concepts of multifunctionality and sustainability emphasise the vulnerability of ecosystems and the multiple benefits that can be sustained through adequate resource management. Accordingly, they have been adopted in various forms in the resource economics literature and translated into more general policy principles.

On the one hand, promoted by the WCED (1987), sustainable development has been established by the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro, 1992, as the guiding policy principle for social and economic development, and especially in promoting sustainable

agriculture and rural development (chapter 14 of Agenda 21). On the other hand, propagated by the European Union and a group of rather small food-importing countries (including Austria, Switzerland, Norway, Japan and Korea), multifunctionality emerged as an argument for including domestic concerns about agriculture and rural development in the World Trade Organization (WTO) negotiations on agriculture. It has been furthermore adopted as a policy principle by OECD Agriculture Ministers in 1998, in recognising that beyond its primary function of supplying food and fibre, agriculture can provide a wide range of environmental and socio-economic benefits. Those encompass in particular: recreational amenities and aesthetic values of the rural landscape, non-use values of biodiversity and habitat protection, intrinsic values of ecosystems, watersheds and natural resources and their functions, concerns about food security, food safety, animal welfare and cultural heritage, as well as issues of rural employment and the viability of rural areas.

Altogether, these issues can be referred to as the «total value of agriculture» that encompasses a set of non-market benefits, which constitute potential sources of market failure and which provide theoretical arguments for governmental intervention in the agricultural sector (see also Gardner, 1977; OECD, 2001a, 2003). Above all, positive and negative externalities associated with agricultural activities constitute an efficiency-based argument for the establishment of policy instruments and institutional arrangements to internalise the external costs and benefits. In addition, the existence of welfare economic aspects associated with the distribution effects of agricultural activities and policy constitutes a further argument for government intervention through regulation and transfer payments. Thus, economic theory provides both efficiency and equity based arguments for government support to farmers. The amount and direction of related payments, if any, depends on the assignment of property rights and policy entitlements (cf. Bromley and Hodge, 1990; Bromley, 2000; Hediger and Lehmann, 2007) and ultimately on the normative framework applied.

All in all, this reveals the welfare economic foundation of multifunctionality in agriculture. It encompasses both concern about allocative efficiency and distributive fairness. However, this is not sufficient if sustainable development is the goal. On the one hand, the general approach of modern welfare economics involves the assessment and internalisation of flows of benefits and disutilities – that is, both positive and negative externalities – attributed to agricultural acti-

vities, while the distributional aspects are often disregarded in economic analyses and policy discussions of multifunctionality. On the other hand, sustainable development requires in a long-term and capital-theoretic perspective to serve as a valid basis of benefit assessment and policy design. Thus, the effects of agricultural activity upon the various compartments of economic, environmental and social capital must be identified and evaluated from an intertemporal perspective of social welfare maximisation and an integrated systems perspective of sustainable development (Hediger and Knickel, 2009). It must combine the short-term perspective of instantaneous externalities with the evaluation of stocks and involves analogies with green national and sustainability accounting (cf. Hartwick, 2001; Hamilton and Atkinson, 2006), which is particularly relevant when it comes to the joint consideration of environmental and socio-economic effects of agriculture.

A capital-theoretic approach is fundamental to the examination of the relationships between agriculture's multifunctionality and its contribution to sustainable development. It particularly provides an analytical framework which, as requested by Caron et al. (2008), would make it possible to interpret the relationships between the multiple functions of agriculture and their contribution to social and economic development. Moreover, a capital-theoretic approach would help to link the various functions of agriculture in a comprehensive way while taking into account impacts on resources, markets and social welfare in an intertemporal and spatial context. From this perspective, sustainable development provides the normative framework to study and evaluate the multiple functions and activities of agriculture, which is an essential but often declining part of a local economy. Hence, changes in rural employment and viability must be evaluated from an integrated sustainability perspective of territorial development, rather than restricted to the roles of agriculture (Hediger and Knickel, 2009).

In this regard, the crucial issues are the development of social welfare in a given area or country as a whole, and the contribution of the entire agri-food sector to social welfare and the various system goals. This view and assessment cannot be restricted to agriculture as a primary production system. Rather, it must encompass the entire agri-food chain with its impacts on the social, economic and environmental systems, and thus on future development prospects and social well-being. In other words, the economic, social and environmental per-

formance of the various actors along the entire value chain, from the producers to the consumers, must be considered. On the company level, this is related to the concept of corporate social responsibility (CSR), which is regarded in the subsequent section.

3. Corporate social responsibility – the role of business in society

The debate about the roles and responsibilities of business in society has a long tradition in the business ethics and management literature (cf. Carroll, 1999; McWilliams and Siegel, 2001; Vogel, 2005), but only entered the economics literature in recent years (cf. Balboni, 2010, Bénabou and Tirole, 2010, Gowdy, 2005; Hediger, 2010, Kitzmüller and Shimshack, 2012; Paton and Siegel, 2005). Driven by the fact that concerns about the roles of business in society have reached the agendas of international organisations, national governments and world business leaders, and by their own desire to better understand the motives and drivers of CSR activities, economists started to undertake theoretical and empirical work on corporate social responsibility. Main topics on this new research agenda are related to the «private provision of public goods» (e.g., Besley and Ghatak, 2007) and strategic aspects of CSR (e.g., Baron, 2001, 2007; Baron and Diermeier, 2007; Kitzmüller, 2008). Others focus on the link between CSR and the problem of corporate governance (e.g., Beltratti, 2005; Tirole, 2001, 2006) or the interaction between CSR and public policy (e.g., Portney, 2005) that ultimately involves the welfare economic foundation of CSR (Heal, 2005; Hediger, 2010). In addition, Hartmann (2011) elucidates CSR in value chains and the food industry as a new and upcoming field in economics.¹

¹ In this regard, Hartmann (2011) observes that «the scientific discussion of the CSR concept with a focus on the food sector is still scarce», while multifunctionality issues have long received considerable attention in agricultural economic research. This involves more than a semantic shift, as multifunctionality only regards the agricultural production system, while the CSR perspective is wider and encloses the entire value chain, including production.

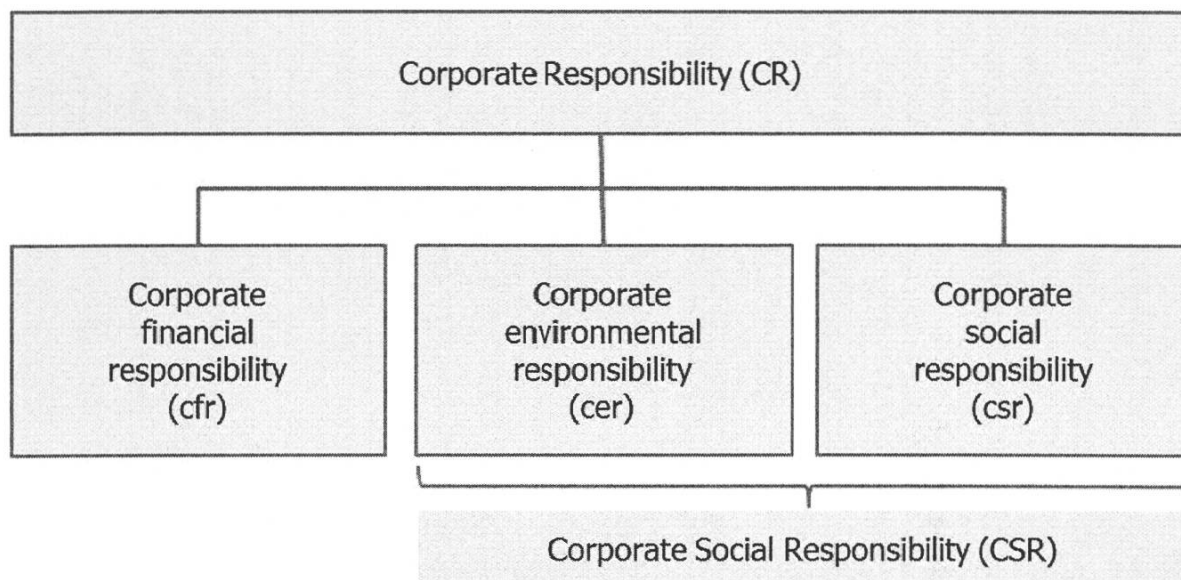
Despite this growing literature on the economics of corporate social responsibility, one key question remains to be addressed first: What is CSR? This can be answered with a view on fundamental contributions from the business realm and completed with insights from the economics literature:

In a paramount publication of the World Business Council for Sustainable Development, Holme and Watts (2000) define corporate social responsibility (CSR) in general terms as «the continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce». They further emphasise that «CSR is no longer seen to represent an unproductive cost or resource burden, but, increasingly, as a means of enhancing reputation and credibility among stakeholders». Accordingly, CSR represents «the human face of the highly competitive world of commerce» and of globalization. It constitutes «the commitment of business to contribute to sustainable economic development» (WBCSD, 2002). This position is also supported by the OECD (2001b), which comprehends CSR as the «business's contribution to sustainable development», and emphasises that corporate behaviour must not only ensure returns to shareholders, wages to employees, and provide products and services to consumers, but also respond to societal and environmental concerns and values.

Thus, CSR implicates a shift from the pure shareholder perspective of maximizing profits and corporate value towards a broader concept of multiple stakeholder concerns and values. From an analytical point of view, the overall task is thus to integrate these distinct objectives into accounting and decision making at the firm or corporate level. This is most succinctly expressed by Beltratti's (2005) conclusion that «socially responsible firms do try to maximize profits but at the same time try to improve the welfare of other stakeholders.» In this sense, CSR involves an extension of the mere profit and value maximization framework of the firm to also include concern for the well-being of other stakeholders or the welfare of society at large. From a theoretical perspective, this can be related to the concept of Pareto improvement (Lange, 1942), which in a strict sense would require that a company must maximize its corporate value without reducing the well-being of any individual in the society, and thus can formally be represented as constrained value maximization (Hediger, 2010). This welfare economic interpretation of CSR deviates from the shareholder and corporate value perspective. It requires companies to particularly address two im-

portant sources of market imperfection: externalities and distributive fairness. In this regard, Heal (2005) points out that «almost all conflicts between corporations and society can be traced to one of these two sources – either discrepancies between private and social costs and benefits, or different perceptions of what is fair.» Consequently, he regards CSR being «a programme of actions to reduce externalized costs and to avoid distributional conflicts» and further concludes that «CSR can play a valuable role in ensuring that the invisible hand acts.» Moreover, he emphasizes that «markets produce outcomes that are efficient but not necessarily fair» and draws attention to the prospective role of CSR in anticipating and minimizing distributional conflicts before they flare up. But, the issue is not for companies to replace the government in distribution and social policy. Rather, they are advised to carefully act in their own interest; that is, by anticipating and minimising conflicts between their own business, on one side, and society along with its representatives, on the other. Consequently, CSR can help «to improve corporate profits and guard against reputational risks» (Heal, 2005). However, it is not in general efficient that a company fully eliminates its negative externalities and achieves compliance if the above constraint of non-declining individual well-being. Rather, the inclusion of reputation in the calculus of long-term profit maximization should result in an optimal outcome from the company's perspective. According to Hediger (2010), this involves a compromise between the two extremes of CSR (or «stakeholder society»), on the one hand, and sheer shareholder value maximization, on the other. Moreover, the later closely relates to the challenges of corporate governance – that is, fiduciary duty, accountability and transparency – or corporate financial responsibility, to contrast it with the narrower terms of corporate social and environmental responsibility (cf. Figure 1).

Figure 1: The three domains of corporate responsibility



Source: adapted from WBCSD, 1999

Starting from a corporate governance point of view, Tirole (2001, 2006) accentuates the need of designing incentives to managers «so as to align them with the sum of the stakeholders' surpluses rather than just the equityholders' surplus.» He particularly criticises the neglect of the role of managers as a party with specific interests in the shareholder-stakeholder conflict, and points out that «governments may be the ultimate stakeholder-society organizations, since they are instructed to balance the welfares of many different interest groups». This invokes the question about sharing responsibilities between government agencies and corporate entities in handling the above mentioned CSR problems of internalising externalities and coping with distributional conflicts. Hence, one might also consider CSR as an option for sustainable agriculture and rural development policy, and thus to replace or complement the concepts of multifunctionality and sustainability as guiding policy principles.²

² Notice that CSR and corporate sustainability are distinct, but interacting concepts, as Hediger (2010) shows on a theoretical basis. Multifunctionality is grounded within welfare economic theory dealing with externalities and distributional concerns, while corporate sustainability corresponds to a company's internal optimization problem of maximizing and maintaining its corporate value (application of the «weak sustainability» principle on corporate level). In analogy, agricultural sustainability must be related to maintaining the total value of agriculture at a farm or territorial level.

4. Agricultural policy and the agri-food chain in the light of CSR

Though the concepts of multifunctionality and corporate social responsibility have totally different origins, they share common welfare economic features. These are the concerns about externalities and distributional issues that are associated with economic activities by farmers, on one side, and general business companies, on the other. However, the major differences between the concepts of multifunctionality and CSR can also be attributed to welfare economic aspects. Those are particularly related to

- a) the presumptions about who has to take responsibility for internalising externalities and in coping with distributional problems (two traditional domains of government policy, at least in the Pigouvian tradition), and
- b) the different ranges of issues that are effectively covered by the concepts of multifunctionality in agriculture and CSR in the agri-food chain (cf. Table 1).

The appeal on agriculture's multifunctionality to justify government support to farmers implicates the use of tax money for that purpose and the implicit assignment of the property rights on the various issues of multifunctionality to the farmers.³ Yet, at the other end of the agri-food chain implicit property rights regarding food related issues are left with the consumers. Indeed, multinational companies and increasingly small and medium sized enterprises (SMEs) are expected to do good to society and the environment beyond their primary task of providing marketable goods and services and generating income to their owners and employees, going beyond what is required by the law (McWilliams and Siegel, 2001). This particularly involves public expectations about socially and environmentally friendly production methods, and thus ways to minimize negative externalities. If companies do not behave in an adequate way they risk to be blamed by NGOs or mass media, which can negatively affect their reputation and financial performance (see Heal, 2008, for examples).

³ See also Bromley and Hodge (1990) and Bromley (2000) on the implicit assignment of property rights with regard to the environment and so-called «countryside and community attributes».

Table 1: Main issues of multifunctional agriculture (MFA) and corporate social responsibility (CSR) in the agri-food chain

Issues to be considered ...	from a perspective of	
	MFA	CSR
Primary function of agriculture and the agri-food chain:		
– Production/provision of food and fibre	X	X
– Procurement (incl. fairness, profit sharing, fair trade)	–	X
Environmental issues (benefits):		
– Environmental impacts of agriculture (esp. landscape, biodiversity and habitats, air, water and soil quality)	X	X
– Environmental impacts of food processing and transport	–	X
– Food waste	–	X
Socio-economic and cultural issues (benefits):		
– Food security	X	X
– Food safety (incl. organic production, biotechnology)	X	X
– Animal welfare	X	X
– Labour and human rights	–	X
– Consumers' lifestyle	–	X
– Rural employment and viability	X	X
– Cultural heritage	X	–

Source: Own compilation based on Hediger and Knickel (2009) and Maloni and Brown (2006)

Moreover, large retailers and trade companies also face the threat of being attacked for the behaviour of their suppliers. As a consequence, they increasingly forward this pressure to suppliers and primary producers, who have then to apply socially and environmentally sound production methods. Otherwise, they risk of losing business or achieving a lower price for their products.

By making use of labels and certification agencies, for instance, retailers can control the fulfilment of some predefined production standards which they impose upon their suppliers. This strategy most likely minimizes negative externalities and potential distributional conflicts. Labelling can thus be regarded as a CSR program. Thus, farmers and other suppliers along the agri-food chain may also get involved with – and thus indirectly face – the challenge of CSR. In

other words, large retailers and trade companies can use their market position and bargaining power to enforce socially responsible behaviour along the agri-food chain for their own interest; that is, as a means of minimizing their own reputational risks. The latter might be caused by the suppliers of retail and trade companies, but would finally curtail each company's own market shares and corporate value.

To a certain extent, the above logic coincides with the OECD's (2005) recommendation to explore non-governmental options for both

- a) the provision of agriculture's non-commodity outputs (positive externalities) and
- b) the reduction of its negative externalities.

These options particularly comprise the use of market mechanisms as well as the promotion of private transactions and voluntary approaches. They can be based on pressure coming from large retailers and trade companies, but on initiatives taken by farmers, local communities or public authorities.

Examples include the merchandising of attributes of a multifunctional agriculture by applying labels and setting market price premiums, which consumers are willing to pay for products from socially and environmentally-friendly production methods and for regional products, and to strengthen «short supply chains». Further examples are agri-tourism and manure trading schemes that help farmers to increase their income in different ways, while partly internalising positive or negative externalities on a private basis. Given the potentially higher income to farmers in all these cases, the advantage of the solutions envisaged by the OECD may result in a lower level of government intervention and a reduction of the associated budget position, compared to the current situation in many countries. Thus, while pursuing their intimate objective of maximising profits or income, the various actors along the agri-food chain (including the farmers) could contribute to enhancing the net social benefits (externalities) in the socio-economic and environmental realms. At the same time, they could help to deliberate/liberate tax revenues for other purposes or to reduce the overall tax burden.

The latter issue brings us to another important concern of social responsibility, which is often disregarded in the debates about agriculture's multifunctionality. This is the double role of citizens as final consumers of agricultural products and as tax payers; that is, the fact that they interact with the agri-food chain at both ends. Yet, in the CSR perspective the citizens are classical stakeholders in their role as customers who buy the final products of agriculture and who face the externalities of agricultural activities. Moreover, in a democratic system, they can directly or indirectly decide about government support to agriculture. Thus, citizens have, to a certain extent, a similar role as shareholders in a corporate enterprise. They «invest» (tax money) in the «corporation» (the agri-food system), receive some rights to decide about the «(corporate) objectives» (policy goals), and expect a return in form of «the multifunctional benefits from agriculture».

Accordingly, from a tax payers' perspective, we have a similar problem as the one of «corporate governance» that results from the separation of «investors» (here: tax payers) and control (farmers and government agencies). However, this is distinct from the standard problem of private investors in corporate enterprises, since the tax payers do not expect a financial return on their investment in agriculture. Rather, they expect some immaterial benefits that are usually attributed to a multifunctional agriculture, as well as an efficient use of tax money by the public authorities.

The governance problem is then to provide incentives to both farmers and government officials to not only maximize their own profits (income) but – in analogy to the corporate value of firms – effectively to maximize the total value of agriculture. The latter is determined by the various assets (man-made and natural capital stocks) of the agricultural production system and its rural environment (including social and cultural capital). This solution of the governance problem is directly related to the objective of sustainable development which, from an economics perspective, aims at maximising and maintaining the total value of capital. Moreover, it is compatible with Jensen's (2001) concept of «enlightened value maximisation» that evaluates tradeoffs across different constituencies, and Tirole's (2001) request of an «enlarged fiduciary duty» as an attempt to make management (government officials and farmers) accountable for the welfare of stakeholders. Adapted from Beltratti's (2005) interpretation of CSR, this implicates that *socially responsible farmers do try to maximize their profits (income)*

but at the same time try to improve the welfare of other stakeholders (citizens), or at least avoid curtailing their well-being (net social benefit). Basically, solving this governance problem of multifunctional agriculture directly integrates the CSR problem into agricultural policy and contributes to the objective of sustainable development.

This integration is facilitated by the double role of citizens as tax payers and consumers. However, in these roles, they do not, in general, have direct contact and interaction with the farmers, but with retailers at the end of the agri-food chain and with government agencies which collect and transfer tax money to the farmers. When granted as area payments, for instance, these transfers increase the land rents and – apart of effects on the extensive margin – they are quasi allocation neutral with respect to yield and variable inputs per area. Thus, area payments can theoretically be used as a vehicle of income transfer to farmers. However, depending on market power, this additional rent can be absorbed by other actors in the agri-food chain.⁴

This situation particularly complicates the governance problem in the agri-food system for two main reasons. First, we do not have a single enterprise with a vertically integrated production system, as in the Walrasian model. Rather, we have a system with multiple separations of «ownership» and control – and thus a multiple principle-agent problem – in a system of vertical markets. Second, some players in the agri-food chain may exercise market and bargaining power, which enables them to partly absorb tax money and resource rents. The resulting distribution of income may deviate from the citizens' intention behind the provision of public support to farmers, which presumably is both guided by allocation and distribution motives. More precisely, the exertion of market and bargaining power may result in a reduction of the farmers' economic welfare as well as the well-being of other citizens. Unless these distribution effects are overcompensated by other social benefits the absorption of the above rents by down-stream companies of the agri-food chain does not in general satisfy the requirements of corporate social responsibility.

⁴ Various studies, such as those of Mc Corrison et al. (2001), Mc Corrison (2002), Lloyd et al. (2006) and Sexton (2013) underline the importance of market power in agricultural and food markets. In addition, Hartmann (2011) emphasizes that the bargaining power in the food sector often rests with large processors and retailers, who – through threats of boycott and loss of brand value and reputation – are increasingly confronted with additional responsibilities (see also Heal, 2008).

From a public policy perspective, the exertion of market power is an important issue which is overlooked with agricultural policy and government support to farmers based on the sole argument of agriculture's multifunctionality. In contrast, the concept of corporate (social) responsibility could provide a helpful approach to widen the above perspective and regard the overall performance of the various actors within the agri-food system in the light of public expectations, government support to farmers, market power in the agri-food chain, social welfare, and sustainable development. It would transfer the tasks of fiduciary duty, transparency and accountability and thus the responsibility for the consequences of their activities to all the actors along the agri-food chains, while government agencies would be in charge of control, in their role as the fiduciaries of society.

5. Conclusion

In this article, we explore the relationship between the concepts of multifunctionality, sustainability, corporate social responsibility (CSR) and governance of the agri-food system, and the question whether the concept of CSR could be used to replace or complement those of multifunctionality and sustainability as guiding principles for agricultural policy. Our inquiry shows that the CSR concept implicates a wider perspective – that is, a broader range of issues – which allows us to consider the entire agri-food chain from primary production to the final consumers. It further elucidates the double role of citizens as consumers and tax payers, which requires an integrated approach to jointly cover the issues of governance and stakeholder concerns. From a capital-theoretic perspective, those are the most usefully evaluated in an intertemporal framework of total value maximisation and sustainable development.

From this point of view, the concept of CSR provides an appropriate framework to complete the link between the concepts of multifunctionality and sustainable development.⁵ The concept of CSR can further provide a new basis for analy-

⁵ Notice that – in line with the WCED (1987) and related academic literature – sustainable development constitutes the dynamic framework of assessment within which the terms of sustainability must be defined.

sing and discussing the role of agriculture and governmental support to farmers from a broader systems perspective. This embraces the social, ecological and economic dimensions of agricultural production and rural development together with the industrial and welfare economic aspects of the vertical separation and market structures in the agri-food chain. In other words, the concept of CSR allows us to take an integrated perspective of the overall agri-food production system. It implicates a shift of paradigm from sectoral policy and agricultural support to a more comprehensive approach of territorial development and industrial organisation, while explicitly taking distribution and allocation issues into account. This enlarged perspective does not only require careful examination of agriculture's immediate roles and impacts upon its natural and socio-economic environment, the key issues of multifunctionality, but also calls for an improved understanding and assessment of the interactions of different actors and the role of market power along the agri-food chain. It ultimately implicates an integration of the societal and corporate perspectives and thus the evaluation each actor's performance both from a company's CSR and an overall sustainable development perspective (see Hediger, 2010).

Finally, the vertical markets of the agri-food sector constitute a promising new field of application of the concept of corporate social responsibility and contribution to advancing the economics of CSR in an analytically rigorous way. Moreover, the concept of CSR can provide an enhanced analytical basis for the evaluation of the social performance of agriculture and the agri-food chain that is both conceptually related to the welfare economic foundation of multifunctionality and CSR and the capital-theoretic foundation of sustainable development. It can thus complement the traditional concepts of multifunctionality and sustainability and contribute to a more enlightened debate on agricultural and food policy.

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