Rise and Fall of the Concept Sustainability

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ABSTRACT: Sustainability is a key concept when we discuss the effects of human population and activity on nature and the biosphere. Still, especially in Europe, for years it has been used in many other senses both in economics and sociology. Its original meaning has been greatly distorted and extended; it has been misused and abused. This paper examines why this happened and what is the new meaning (if any) of the concept. It also discusses the interpretation of the concept sustainability on different levels—global, national, industrial, and corporate—as the author sees it. Emphasis is placed on the difference between environmental protection and sustainability.

KEYWORDS
Ecological Sustainability, "Social" Sustainability, "Economic" Sustainabilty, Levels of Sustainability, Misuse and Abuse of the Concept Sustainability

I. SEMANTICS, MISUSE, AND ABUSE

Twenty years ago the concept sustainability was known only by ecologists and environmental economists, and its meaning was quite unambiguous: human population and activity should not surpass the carrying capacity of the biosphere, its renewing, resource, and sink capacities. Nowadays sustainability is one of the most frequently used words by economists and politicians. You can hardly read a text or an interview by a leading economist or politician where sustainability is not used several times. By now its original meaning has faded away and been forgotten. It simply means "good," a synonym for everything that is positive. One can read and hear about a sustainable state budget, exchange rate, interest rate, exports, financing, sustainable society, social health, and pension policies. The worst of everything is "sustainable economic growth," which is the oxymoron of economics.[1] According to environmental economics and ecological economics, permanent economic growth is unsustainable; it is development that can be sustained. The expression has been inflated, overused, misused, and abused. At the same time it crowds out decent adjectives like permanent, steady, balanced, just, continuous, and quick. On the top of everything, the term is used completely unrelated to the natural environment. You cannot object that, still, this is good because an important notion is spreading. To the contrary, as its inflated meaning is spreading, people think that everything is all right, we are "sustainable," or at least heading for sustainability.

II. THE CRITIQUE OF THE BRUNDTLAND DEFINITION

1 See Daly 1991, Steady-State Economics.

A development which meets the needs of present generations without compromising the ability of future generations to meet their own needs (Our Common Future).

The notion of sustainable development has been created with an inborn defect. The second part of the Brundtland definition (without compromising the possibilities of future generations to meet their demands) is all right, but the first part, "to satisfy the needs of the present," is a criterion that cannot be met. Needs cannot be satisfied, partly because above a minimal-level characteristic for the given society. they are determined by motivation of social prestige. On the other hand the permanent—and even accelerating—technological development generates newer and newer needs.

This defect can be explained by political considerations. The concepts elaborated by the UN and its institutions are addressed to the whole world, including the developing countries (the number of which is five times more than the developed ones). In a world where the daily income of 1.2 billion people is less than $1, and 2 billion people get less than $2, economic growth and the satisfaction of basic needs are necessary. However, in the developed countries, where the daily income is between $50-100, sustainability should be interpreted in another way.

Moreover, the Brundtland Commission had to take into consideration characteristics of the developed world as well. The West European citizen prefers to select the household waste according to its material and even color and collects it into different containers with satisfaction, "well, I have made some sacrifice for the environment." However, the political party that wanted to convince the citizen about the negative side of economic growth, the necessity of consumption reduction, or less motorization would be doomed. As a result, from the political side, the Brundtland definition is understandable, but scientifically it cannot hold.

I am not sure that we have to be happy that the concept of sustainability has been spread this way. The misbelief that sustainability could be maintained even at this level of consumption involves serious negative consequences.[2]

III. THE ORIGINS OF THE "THREE LEGS" APPROACH

The damage emanating from the marketing character of and political concession to the Brundtland definition is dwarfed by the concept based on the so-called legs or pillars of sustainability. This approach can be traced back to the Earth Summits of 1992 in Rio and 2002 in Johannesburg. The concept differentiates the ecological, economic, and social dimensions (pillars or components) of sustainability. A common reference to this reads as follows: "sustainability is not reached if the economy performs not properly and if basic social problems are not solved." If the discussion were about economic and social *conditions* of reaching sustainability, I would fully agree. If these "legs" or "pillars" were interpreted that the economy should develop in a local direction based on environment-friendly alternatives, decreased consumption, a different way of thinking and living, and a changed attitude toward nature, that would be acceptable. However, I cannot agree when present day economic and social conditions are considered as equal to the ecological side of sustainability.

A quotation from the *Johannesburg Summit 2002*, referring to the Agenda 21, endorsed by the former Rio Summit, reads as follows: "The Agenda 21 has integrated in one unique political framework

2 Let us remember the conclusions of the *Factor Ten*, the Carnoules Declaration: In order to reach sustainability without decreasing consumption, a 10 fold efficiency improvement should be needed in the use of energy and resources. (Carnoules, France, 1994)

the ecological, economic and social concerns."[3] However, this concept is not the same as is meant by the followers of the "three leg approach." The definition of sustainable development by the Summit resolution is the following: "*to ensure a balance between economic development, social development and environmental protection as interdependent and mutually reinforcing pillars of sustainable development.*"[4] According to a frequent interpretation, the equal importance of the three "legs" supposes that a trade-off could be done among them in the sense that economic success of a country may mitigate the damage done to the environment. This concept does not comply with the conditions of the so-called "strong sustainability," which excludes trade-off between manmade and natural capitals.

According to Pearce and Atkinson, $Z = S/Y - \delta_M \cdot K_M/Y - \delta_N \cdot K_N/Y$; if $Z \geq 0$, we have the case of weak sustainability, meaning that savings can replace the amortization of manmade and natural capital.

(S: savings, Y: GDP, KM: manmade capital, KN: natural capital.)

For strong sustainability, dN KN/Y $\geq$ 0, the natural capital cannot decrease in time.[5]

Besides, it is quite evident that this "three leg approach" by the documents of the Rio and Johannesburg Summits should be related, first of all, to the third world. In a world summit where four-fifths of the 200+ countries are poor, underdeveloped states, one rightly argues that in their case economic growth and basic social rights are equally important. However, this argument should not be extended to countries of abundance and consumer societies. When this has been done, and the three "pillars" have been equalized, ecological sustainability sharply lost its importance. The Assistant General Secretary of the UN stated: "*Both the environmental activists and representatives of the industry have seen a false trade off between the protection of environment and economic growth. A new way of thinking should be introduced: one, which considers a healthy economy and a healthy environment as interrelating, mutually improving aims.*"[6]

Another definition from the Johannesburg Summit is in accordance with my thoughts: "*Sustainable development aims at improving the life quality of all people of the world, without increasing the usage of natural resources above the carrying capacity of the Earth*."[7] Following, it prescribes the integration of three fields of "*key importance.*"

- economic growth and equality,
- protection of natural resources and the environment,
- social progress.

The first aim is "responsible, long-term growth," when no country or community should lag behind. The protection of natural resources and the environment serves the interests of future generations. I cite the requirement of social development: "*People, all over the world, need employment, food, education, energy, health service, water and sewage canalization. Besides the satisfaction of these needs the world community has to ensure the acknowledgement of the rich tissue of cultural and social diversity and the rights of the workers and that all members of the society had the right to participate in the determination of the common future*."[8]

It is needless to say that all these requirements refer to the third world. It is their case where backwardness, poverty, and deprivation are of high scale. In their case it is evidently justified to integrate ecological, economic, and social targets

3 Johannesburg Summit 2002, p. 6.
4 Johannesburg Summit Resolution, 2002.
5 Kerekes 2007, p. 26.
6 Johannesburg Summit 2002, p. 2.
7 I.e. p.4.
8 I.e.

and the completion of the ecological sustainability with economic growth, equity, basic human needs, services, and rights, but is it justified to project these requirements on the rich countries?

Conclusion: The "three leg approach" by no means could be interpreted as a trade-off among the ecological, economic, and social "legs". When the documents of the Earth Summit speak about their integration, the aim is to have in mind the serious economic and social backwardness of the four-fifth parts of the world population. It would be hypocrisy to call them on the protection of the natural environment while their basic needs are not met. However, this approach should not be implemented vis-à-vis the developed countries.

IV. ECONOMIC AND SOCIAL SUSTAINABILITY – HAS IT ANY MEANING?

From the previous point we could see that—concerning the definition of sustainability—the aim of the UN Earth Summits was the integration of the ecological, economic, and social elements of sustainability. Namely, reference was made to the *components* of sustainability, but nobody was speaking about economic or social sustainability separately. Most leading politicians and economists are speaking about sustainable economy and sustainable society without any relation to the ecology. By now these two terms have an autonomous and independent existence. Then what is the meaning of a "sustainable economy"? In other words do "sustainable economies" or "sustainable societies" exist in a non-ecological sense?

When the UN documents discuss the economic and social aspects of sustainability, they define simple requirements that are evidently suited to the developing countries. The economy should be stable, dynamic, and competitive, shortly successful, and "healthy." Resource use should be efficient, and resources should be raised for sustainable development. Also in the society, poverty, discrimination, and unemployment should be combated, big income differences narrowed, tolerance prevail, and equal chances available for all.

No one can doubt the rightness and justification of these goals in the traditional sense. Nonetheless, we can challenge whether these goals have any relatedness to ecological sustainability. Besides, nobody could argue that if these goals were not reached, sustainability could not be achieved. (Again, we should be aware of the fact that these criteria have been prescribed for the third world.)

The "sustainable economy"

In the '60s and '70s Japan and the small Asian tigers had the most dynamic economic growth, and their competitiveness was outstandingly high. Since the'80s, it is China that beats the growth records; in the '90s India also has accelerated growth. Have these countries approached ecological sustainability? To the contrary, they evidently have been departing from it. However, neither of the countries getting into the downward sloping phase of the pollution Kuznets curve have approached sustainability because their per capita energy and resource consumption is permanently growing, but their efficiency indicators are improving .[9]

Let us state that even if the dematerialization of a country is favorable, even if its environmental efficiency is improving, it is approaching toward sustainability only if its per capita energy and resource use are diminishing. (There is only one such a country among the developed ones: Germany. The

9 This process of decarbonisation or dematerialization should not be undervalued. But when per capita energy use – and what is even more important – CO2 emission is growing, no one can speak about even a trend towards sustainability; to the contrary: we are still heading for unsustainability.

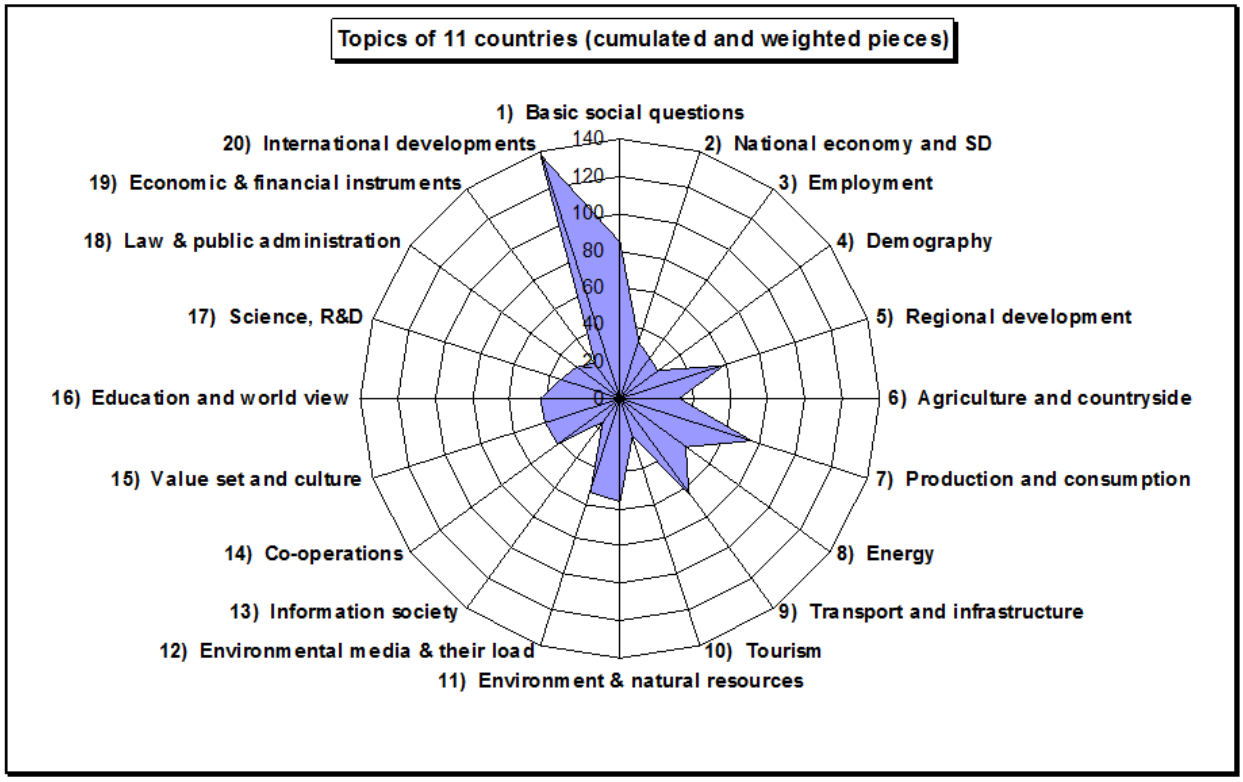
reason is that after reunification the industry of the former GDR was collapsed.) In the countries that got into the downward sloping phase of the Kuznets curve, only the energy and resource efficiency are improving. This is important but not enough for the sustainability.

As a result, the dynamic growth and the improvement of efficiency have nothing to do with sustainability. What about the fiscal and monetary stability? Do they have anything in common with ecological sustainability? In a paradoxical way, rather unstable countries do favor sustainability more than stable ones, because after instability, restriction packages are introduced that aim at reducing wages, budget outlays, and imports. However, as instability has been partly caused by former high liquidity and excessive spending, the result of the different swings from an environmental point is neutral.

In case of the developed countries, a "sustainable economy" should be an environment friendly economy with alternative production and consumption structures, a high share of renewables in the energy sector and an ecological tax reform. In the final instance, a "sustainable economy" in the non-ecological sense is the opposite of what has been said above; ecological sustainability demands a "stationary" economy, i.e., without growth.[10]

The "sustainable society"

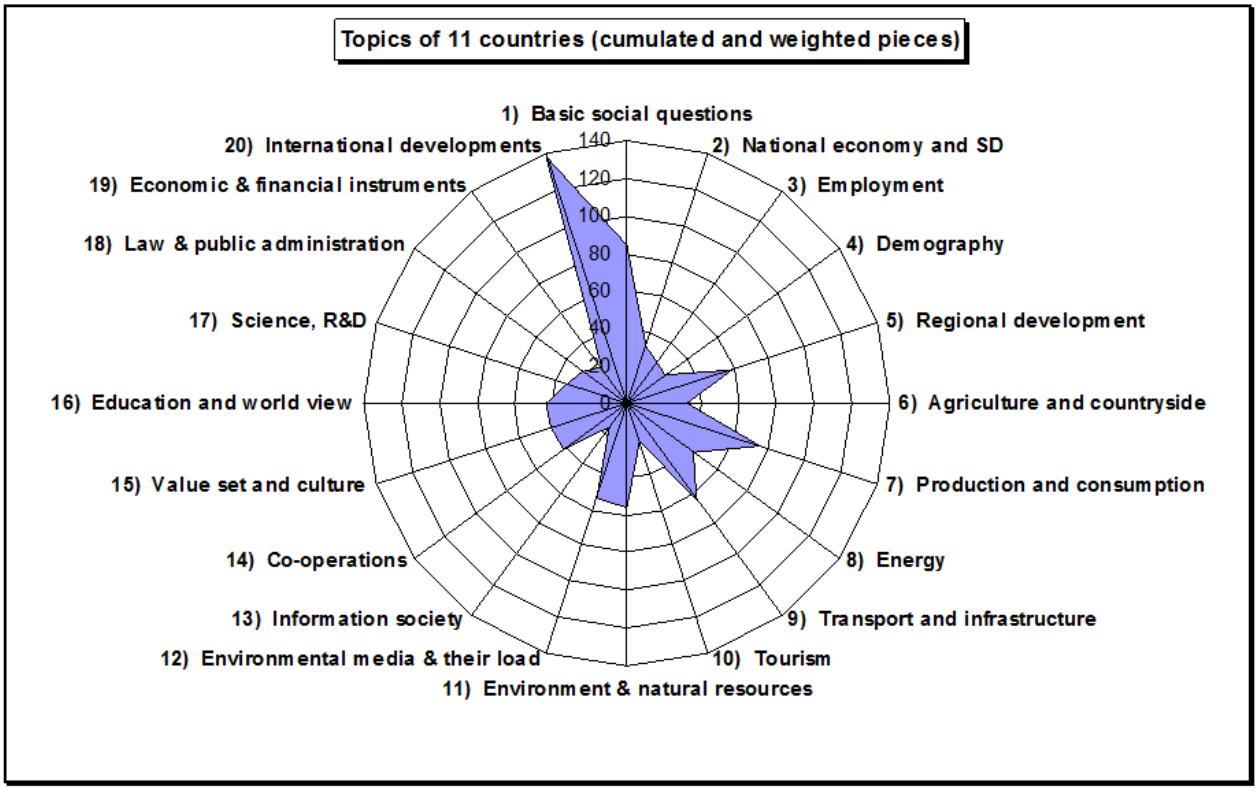
To speak about the social side or "leg" of sustainability is even a bigger attack on common sense. Does high unemployment, big differences in culture and incomes, and the lack of tolerance and nondiscrimination make a society "unsustainable"? From the ecological viewpoint, no. It is the



10 See Daily's Steady-State Economics.

same for the natural environment; whether these characteristics do prevail or not, they are not relevant. Property and income distribution does not affect the state of the environment; low employment rather favors it. From the viewpoint of welfare economics, income differences do not count. The social welfare function can be maximized at both low and high income differences. From a non-ecological viewpoint it is a question of politics and ideology. Objectively, the above society is not "sustainably," if it does not tolerate these characteristics and rises up against them (= social revolution).

This narrowing of the concept of sustainability leads to its unlimited use, misuse, and abuse. During the past years all European countries developed their so-called SDSs (Sustainable Development Strategies). However, a short review of these strategies reveals that they are ecologically unsustainable, and the expression is a mere lip service to the environmental expectations. The proper title for these strategies should be environment-friendly development strategies.



These figures contain the discussed topics of the SDSs of 11 European countries. For sustainable development the topics: 2) national economy and sustainable development, 12) environmental media and effects, 11) natural environment and resources, and 8) energy economy would be of high priority. Still, most attention is paid to 20) international processes and 1) basic social questions. (The 11 countries are: Austria, Germany, Ireland, Greece, Great Britain, the Netherlands, Sweden, Switzerland, Poland, Slovakia, and Hungary.)

Source: Nemzeti Fejlesztési Hivatal, FFS tervezési segédlet, 2005.

One could argue that, in the final analysis, this does not cause any harm because it stresses the importance of the environmental issue. Nonethless, this is untrue. These national development strategies suggest that if the economy and the society are all right, so is the environment. They pretend to appear as if we were in the right direction, but we are not. With all these national sustainable strategies, sustainable sectoral concepts, and sustainable corporations, we are heading for an unsustainable world.

V. IS SUSTAINABILITY NEGOTIABLE?

Those individuals who are speaking about the economic and social "legs" or "pillars" of sustainability unintentionally have in mind an arrangement when, e.g., during wage negotiations, the trade unions, the employers, and representatives of the government reach a compromise. Such items as the volume of state budget deficit, pace of economic growth, and measure of inflation all may be subjects of negotiations and compromise. Hence a false conclusion comes. Ecological sustainability, although it can be either promoted or impeded by economic and social factors, basically is a term belonging to the natural sciences, and, as such, it cannot be a subject of negotiations. It could be negotiable: What will be the contribution of the different industries or social layers to sustainability? However, it cannot be negotiable that a certain level of environmental load will conclude at an irreversible damage, i.e., an ecologically unsustainable state.

If I jump out from the third floor, I shall be inevitably smashed dead. I cannot negotiate a business with gravitation that it could affect me only a half or a quarter of its force. At the present pace of deforestation of rain forests, it cannot be negotiated that climate disorders should not increase and loss of biodiversity should stop. The achievement of certain economic or social goals (a progress on the scale of "economic and social sustainability") cannot neutralize the following environmental damage (unless it is reversible). A progress in the supposed economic and social sustainability cannot neutralize irreversible environmental damage.

This is the reason it is dangerous to speak about the "legs" or "pillars" of sustainability. It raises the misbelief as if progress in the economic and social dimensions could reduce environmental risks and compensate environmental damage. But if an individual does not even know these environmental risks, that person has a good occasion to propagate his or her economic or social opinions or political views under the disguise of sustainability.

VI. LEVELS OF SUSTAINABILITY

Global sustainability

As the global ecosystem is one highly complex system with a self-regulating capacity and the capability to optimize living conditions for its components (see the Gaia hypothesis by Lovelock)[11], we should speak of sustainability, first of all, as a global concept, as this is truly the case. Of course, the interpretation of the term is not so evident. For example, how much time do we "give" to the environment to renew itself or to "process" the waste? Furthermore, what damage scale is affordable in the local and small-scale ecosystems that does not endanger the global ecosystems? Whether excessive deforestation in one region may be mitigated by forestation in other regions, damage caused to a local ecosystem may be mitigated by harnessing similar ecosystems in other places, and whether the overuse and damage of a local ecosystem could be mitigated by the protection of a similar ecosystem elsewhere, namely, whether the different ecosystems are

11 Lovelock, 1987.

capable of replacing each other. For the sake of simplicity, let us suppose that for these questions the answers are positive. (Of course, the case is more complicated; we have to suppose that the damage does not trigger irreversible processes in the neighbouring ecosystems and habitats.)

The national level

Nevertheless, we interpret sustainability on the national level. This is only justified by the fact that there exist sovereign states, and, therefore, the responsibility for the use and load of the biosphere is shared within them. There are no international authorities that could fully take the responsibility of protecting the global environment. (Hence the free ride in a global commons: as individual states cannot be neither closed out of using them, nor forced to comply with the requirements of global sustainability, they overuse it. This is why the introduction of a global emission trading scheme is so difficult; the original deal of the emission rights could be done according to several criteria, and each single criterion affects the different concerns and interests of nation states in a different way.)

The poorest countries are the only ones that are ecologically sustainable. Thinking in global ecological footprints, developed and emerging countries all surpass the carrying capacity.

The industrial level

We frequently hear such expressions as sustainable transport, sustainable energy industry, sustainable agriculture, and sustainable consumption, referring to the industrial or sectoral levels of sustainability. If the concept of sustainability is used as an alternative to the environmentally unfriendly practices, it is acceptable (e.g., transportation with a higher share of railways and public transport; more renewable energy production and use; biofarming, avoiding the use of disposable products, and vegetarianism). Even in this case the proper term would be *environment friendly* transport, industry, and agriculture consumption. However, if it is interpreted as a real sustainability requirement (namely that the activity of the given industry should observe the limits of ecological sustainability), the idea is not right. Countries have different natural endowments and economic structures, and they can achieve a balance on the national level (meaning that the activity of one industry that is unsustainable might be balanced by the activity of an environmental friendly sector). In this sense, we can disregard industrial sustainability. The requirement that each industry and field should be ecologically sustainable is unrealistic. Still, interpretation of sustainability on the industrial level (e.g., transportation) may make sense; it shows the individual environmental load of that industry.

To strive for a sector-by-sector observation of the concept of sustainability would not be rational. For example, transportation would be sustainable only if it used exclusively renewable fuels, land use by highways should be mitigated by increasing natural absorption capacity in other fields, and vehicle wrecks should be completely recycled. (This latter requirement is even more difficult to comply with in the case of the construction industry—the reuse of demolition materials.) To expect the fossil fuel industry to be "sustainable" is foolish. This expectation could be met if the industry would develop renewables in a parallel way that could replace fossil fuel production. But for this purpose, the fuel production should *have* to be excessively expensive or of low level.

VII. CORPORATE SUSTAINABILITY

Even more intriguing is the use of sustainability on the corporate level. In a time when new concepts and disciplines are born like Corporate Social

Responsibility and The Sustainable Firm,[12] and they aim at integrating the environmental and social imperatives of our age, it is difficult to argue against these concepts. However, I doubt whether firms other than those operating in alternative activities (such as producing renewables, organic farming, alternative sewage treatment) could be sustainable. In the overwhelming majority of the cases, when it is written sustainable firm, it should be read as environmental-friendly firm.

Almost 30 years have passed since *Alfred Rappaport*, professor at Northwestern University, swimming together with the newly emerging neoliberal tide, stated that the main aim of a firm must be the increase of *shareholder value*. Since that time managers strive brutally for that purpose, disregarding employees' interests, splitting firms, or liquidating, if shareholder value could be raised. As a natural reaction, the concept of socially responsible enterprise has been born (more exactly reborn, because this idea has been present in the American economy since the very beginning of the formation and activity of corporations as a reaction to the ruthlessness of anglo-saxonian capitalism). Also, as a new element, environmental responsibility has been added to the social one. Also in Europe the development has been different. The state had been playing welfare functions from the very beginning, which had been strengthened and institutionalized in the welfare state after the Second World War. Europe also followed the neoliberal tide from the beginning of the '80s,[13] and as a reaction, the concept of CSR, involving environmental responsibility, emerged. However, by now CSR in Europe is derived from the macro-level sustainability, as its pendant on the micro-level.[14]

The theoretical background is the cutting back of state functions, the demolition of the welfare state. In this case the question arises, if the intervention of the state both into the economy and the firms' affairs has been minimized (to the function of the "night guard state"), how could the firms be "disciplined"? In such conditions does the ethical behavior and social and environmental responsibility of the firms come to the forefront? If the welfare state is demolished, it is the firms that have to play the functions of the welfare state, on a voluntary basis, on their own.

Changes in the instruments of environmental protection show a good analogy: the preference of voluntary instruments. The firm tries to get rid of the state regulation and suggests that it is alone capable of protecting the environment, solely motivated by its consciousness and responsibility.

In the context of a strong, *responsible state*, the voluntary "charity" of the firms is replaced by a redistribution of incomes through taxation; instead of the good treatment with the workers and employees, the strong trade unions validate their interests, and the environment is protected by strict government regulations, not by voluntary measures. As a result – although I am not a Friedman-ite, and moreover have contradictory views to him – in this respect I partly share his opinion (namely, that the firm's main function is increasing profit and not taking care of social and environmental concerns). I add that what is needed is not so much the responsible firm but the *responsible state*.

Returning to the ethical requirement of "*good treatment*" with the workers and employees, is there any system that equals the German "Mitbestimmung" or the Austrian "*Sozialpartnerschaft*" in this respect?

A fashionable approach, the *stakeholder theory*, seems to be a different problem, but I think

12 Corporate Citizenship, Corporate Social Responsiveness, Tripple Bottom Line, Stakeholder Theory; see at Málovics 2011, p. 42.

13 More exactly since 1979, the first Government of Margaret Thatcher.

14 Málovics 2011, p. 43.

it could be traced to the same roots.[15] If markets were not so highly monopolized as they are today, and the economic playground were determined by a responsible state, the proper management of the stakeholder contacts would not mean a favor on the part of the firms, but it would emerge as an external market obligation. At last, let us consider the role of the firm in the given town or region, and its contribution to the improvement of local conditions and the life of the local society. If it is a big foreign company or part of an international retail chain, it is really a grace from its part. However, for a local small- or medium-size firm, it is a natural favor to contribute to the welfare of the local community.

The creation of public goods like social cohesion, welfare, culture, and local development is the task of the government. A serious theoretical problem emerges if firms are charged with these tasks.

In the last resort, this basic theoretical question should be asked: How could the representation and realization of social and environmental interests be more successful, either if they emerge vis-à-vis the firms as external government, social demands, and forcings, or if they are served by voluntary firm decisions? For me the answer is evident: we should choose the first path and the second could be only additional (second best).

VIII. SUMMARY

The concept sustainability should regain its original meaning of ecological sustainability. Spreading to include society and the economy creates confusion, and, instead of supporting a noble cause, it has negative consequences, although people think that we are heading in a good direction. The same holds true with the inflated use of "sustainability." In the majority of the cases, it is environment friendly but not sustainable and, therefore, a misnomer.

Sustainability should be interpreted on a global level, but in the absence of a global authority responsible for it, we must accept its interpretation on national level (where *de facto* responsibility is allocated). The usage of the term on industry level is more of a marketing exercise; it has no scientific background. It is even more questionable on the firm level.

Recently, great emphasis has been put on the social responsibility and environmental sustainability of the firms. Besides the misuse of the concept of sustainability, I do not believe in the voluntary achievement of these goals on the firm level. I think this is the consequence of liberal economic policies. In the past three decades government intervention to the economy was not "fashionable." In such cases there is not enough pressure from top leadership in the firms to take care of the social sphere and the environment. As a result, corporate responsibility is a second-best solution. What really would be needed is the responsible state instead of the responsible enterprise.

Also, the expression "corporate sustainability" itself is an extreme exaggeration. The most we should speak about is environmental-friendly corporate management but by no means sustainable corporations.

The background of the confusion concerning the concept "sustainability" is an economic theoretical one. Sustainability can be correctly interpreted in the context of ecological economics. (As a matter of fact, ecological economics is based on sustainability and carrying capacity.) "But the endeavors of the neoclassical economics to spread its methodology on a problem—namely sustainability—which originally did not make part of the discipline, results in very contradictory outcomes. These outcomes seem sometimes absurd.[16]

15 See: Málovics 2011.

16 Málovics 2011, p. 8.

IX. ACKNOWLEDGMENTS

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