Opening Speech of Day 2

Hans-Gert Pöttering

President of the European Parliament

EUROPEAN PARLIAMENT

Opening of Day 2

Ladies and gentlemen,

I am delighted to be able to welcome you here at the European Parliament today as one of the organisers of this “Beyond GDP” Conference.

For this conference – which has been organised jointly with the European Commission, the OECD, a number of civil-society partners, the Club of Rome and the WWF – there could, in my view, hardly be a more appropriate venue than the European Parliament, where the citizens’ directly elected representatives take responsibility for our common future.

Although this conference will focus mainly on technical and scientific questions, as President of the European Parliament I would nevertheless like to look at what the theme of the conference means for the lives of all of us. After all, how we are to measure progress and prosperity is much more than just an issue for economic experts to examine.

I agree that we must leave the actual definition of the measurement instruments to the experts – but the questions about the effects of, and the need for, new indicators go quite a lot further.

Let us take a current example: just last Saturday in Valencia the United Nations Intergovernmental Panel on Climate Change (IPCC) presented the last part of its climate change report. The report is a severe warning about the worldwide effects of global warming. More clearly than ever before, the report identifies human beings as the cause of global warming.

This incontestable fact shows us that economic growth is after all in part also linked to irrevocable negative effects on our environment. Production, which has been rising for decades and which we have always sought to increase, is not a sign of equally continuous progress.

Economic growth alone is not synonymous with prosperity and citizens’ well-being. Prosperity cannot be measured only on the basis of purely economic indicators, other factors must also be taken into account. Prosperity and how we define it is a truly multidisciplinary matter, and that is why it is so important that today so many representatives of civil society, and of economic, social and environment-policy interests are taking part in this discussion.

The current debate is crucial for the long term and concerns us all. Much more than just statistics is at stake, because the indicators which we select and apply to accomplish our daily work also reflect our way of thinking and our objectives.

We therefore need more than just growth indicators; we need indicators and bases for measurement which fully reflect economic reality, the situation of our environment and the social reality of our society, and which can therefore be taken into account in shaping policy.

The English philosopher Jeremy Bentham (1748-1832) once said something which seems particularly apt today: *“The greatest happiness of the greatest number is the foundation of morals and legislation”.*

In the same vein, does seeking a consensus on the correct prosperity indicators not at the same time also mean establishing a consensus on our political and social goals?

The key issue must be what we wish to achieve for our society, what we would like to attain for our future and for that of our grandchildren.

In common with the whole world, the European Union faces major challenges: globalisation, a lack of social cohesion, the impact of immigration on social balance, environmental pollution and climate change. All of these significantly affect our citizens' well-being in demographic, social, migration-policy and environmental respects.

I am convinced that it is globalisation that offers major opportunities for the European Union, if we shape it actively and sustainably. But it clearly also has side effects which we cannot just ignore.

As politicians and those bearing responsibility in society, it is our duty to face up to this challenge and to systematically incorporate it into our legislative work.

From the outset it is therefore important to be aware of the underlying assumptions of the current debate – i.e. beyond GDP.

We must start by realising that for too long we have equated merely increasing GDP with prosperity. Concentrating for decades on this one economic indicator has to a certain extent been misleading.

Prosperity is after all not just growth. Rather, it is an overall sense of well-being which encompasses mental and physical health as well as environmental and economic factors.

And prosperity is also brought about by reconciling human beings with their natural heritage, with a clean environment which is managed sustainably and socially, and with their cultural wealth.

We are not alone in having to change our entire way of thinking: the group of the world's leading industrial nations, G8, originally met to discuss purely economic matters but now deals with issues such as climate change and the effects of migration.

While noting that worldwide growth has been continually increasing since the 1950s, we must also note that we have not been taking into account pollution and hence the destruction of our own living and working environment.

With more people than ever before suffering from asthma or allergies as a result of urban pollution, can we seriously say that our prosperity has increased just because the economy is growing?

With climate change accelerating and millions of people facing the threat of violent storms and floods, we are now already beginning to pay a high price for polluting and damaging our environment. And the longer we wait, the higher that price will be and the more our health and safety will be at risk.

And so we really must think beyond GDP, and find new and additional guidelines for our policy work.

It is not a question of production itself, but of how we produce and what effects that has on the human race and the environment.

The title of your conference also reminds us that in the European Union we must shape policy on the basis of our common values – with human beings at the centre.

I am unshakably of the opinion that the European Union is far more than an economic joint venture. We bear extensive responsibility for the balance and well-being of European society.

A central component of this idea is that the European Union is a community of shared values. Those values include the right to a clean and healthy environment, protection of creation as handed down to us and people's overall well-being.

Over recent years the public has indeed become noticeably more aware of the consequences of irresponsible and ruthless growth. Almost 90% of European citizens are worried about the effects of climate change.

But by undertaking reforms to create an eco-social market economy based on environmental protection, social cohesion and market economics as the cornerstones of a strategic triangle, the European Union has embarked on a course with a future in terms of ensuring sustainable development.

This future survival model requires support for sustainable production and consumption patterns in order to effectively separate economic growth from environmental damage. It is in every respect a strategy through which everyone involved can win and which also corresponds closely to the European model of society which, in addition to the free market, is mindful of the social and ecological dimension. The EU Reform Treaty has also made prosperity in the comprehensive sense an explicit objective of the European Union:

Above all, the EU strategy for sustainable development aims to continually improve the quality of life and well-being of the present and future generations on this earth.

The European Union has made a good start to implementing the principles of sustainable development; for example, the new orientation of the Lisbon Strategy for growth and development marks a specific policy implementation of the above-mentioned strategic triangle of the eco-social market economy.

Under the renewed Lisbon process, important initiatives have also been taken in the social sphere and on environmental protection; thus the European Union is endeavouring to support all three components equally.

In the resolution which it adopted in 2006 on the strategy for sustainable development, the European Parliament also took the view that when measuring progress in society the importance attributed to GDP should be balanced by taking equal account of qualitative aspects of progress – i.e. quality of life, health, education and culture as well as integration and environmental quality as basic prerequisites for sustainable development.

We also have a moral obligation vis-à-vis future generations to carry out an honest and comprehensive assessment of the effects of our human actions. And let me repeat the key principle: we must look beyond pure production. We must not close our eyes to the long-term effects of our actions and thereby commit subsequent generations to paying the price for them.

I therefore welcome and fully support this conference's initiative of working out a consensus on what prosperity means and how it can be measured. As legislators we need these guidelines, this set of indicators, in order to be able to base our policy work on appropriate information.

If we succeed in adapting our definition of progress and prosperity to the altered framework conditions, it will then be easier for us to take the next step and make our production methods more sustainable.

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But to undertake this work by fumbling around in the dark would not be in keeping with the responsibility which we bear as politicians for our society and above all for its future.

Now we at the European Parliament are not all scientists, although fortunately we do have in our midst a number of engineers and excellent specialists from a wide variety of scientific fields. But as politicians we have to take decisions which affect all areas of society.

A consensus on future indicators therefore has to be reached quickly. Precise and reliable data are essential, and in order to be able to fully meet their purpose they should cover all aspects of human life. We need as accurate as possible an overview of the social developments of our time and of rapidly changing environmental phenomena. We must be able specifically to ascertain whether the European Union really is moving towards an economy which is sustainable in the long term.

At the beginning of my speech I referred to the huge challenge of climate change for the whole of humanity and mentioned the fourth and final part of the United Nations Intergovernmental Panel on Climate Change (IPCC) report, which has just been adopted in Valencia.

The report provides us with confirmation that global warming is clearly taking place and that human action could result in abrupt and irreversible changes on earth.

We need to act quickly. Our next and best opportunity for doing so is the forthcoming UN climate conference in Bali. On behalf of the European Parliament I call upon all Member States of the United Nations to do everything they can to prevent the Bali climate conference from failing.

We must face up to the challenge of climate change and resolutely combat this problem.

As the European Union, we must point out ways of moving away from the production methods which up to now have damaged the environment. But that does not mean having to forgo growth and prosperity. We must prove to our partners around the world that it is possible to sever the link between economic growth and higher CO_2 emissions.

The forthcoming UN conference now provides an opportunity for the global community of states to formulate a comprehensive and binding response to the challenges of climate change.

The European Union must show strength of leadership in Bali. Above all, we must succeed in bringing the United States, China and India to the negotiating table. In this connection I was struck and encouraged by the fact that the United States also welcomed the last part of the IPCC climate change report.

For its part, the European Parliament last week presented a comprehensive proposal for the UN conference in Bali, based on the report by its non-standing climate committee. The report indicates practical ways of limiting the global temperature increase to 2° Celsius.

But the report also calls for a negotiating mandate with a precise timetable. In Bali we must not miss the opportunity of taking a decisive step towards a successor to the Kyoto Protocol.

You are assembled here to devise something which we all urgently need: new indicators for measuring and assessing how we live, our prosperity and well-being. This is about much more than numbers and dry statistics. It is about the foundations for shaping our future correctly. Policy can shape things in the right way for the future only if the foundations are present in the form of meaningful and comprehensive data.

Climate change is only one example – albeit one of the most compelling – of how we need more data than just measurement of pure economic growth. New indicators are indispensable if we want to think about and shape the future.

Accordingly, I wish you all and this conference much success and fruitful further work.

Thank you for your attention.

Session 2
Insights from practice

Carole M. Laible

President and Chief Operating Officer,
Domini Social Investments

The Power of Money

Thank you for the opportunity to speak with you today. I would like to take a few moment of your time to discuss the impact of corporations on well-being.

Let me begin with a story from the early 1980s. A pharmaceutical company knowingly distributes HIV-tainted blood to hemophiliac patients. The short-term benefit is that they do not have to destroy inventory they have already paid for. The long-term effect is that they sicken thousands of patients, creates huge medical expenses and to date, costs hundreds of these patients their lives. The resulting litigation drains the corporation of time, money and focus for years on end.

How did this happen? What drove this company to knowingly distribute tainted blood? The pressure to meet short-term numbers induced senior managers to externalize the cost of the bad blood, selling it to unknowing patients, rather than bite into their bottom line. This action helped them meet the short-term “success” demanded by the financial markets, but failed to recognize the long-term impact on the company and society.

For many decades, those of us in the socially responsible and sustainable investing communities have recognized that the wealth corporations create is more than stock price. We have known that it is not enough to simply accept the stock price that is provided every minute of every day, so easily and conveniently. If we are to understand the true value of these corporations we must hold them accountable to the negative externalities they produce and reward them for the intangible wealth they create. But, analysis depends on data. What is disclosed is measured and what is measured is monitored. Gathering the data necessary to measure and evaluate these positives and negatives is no easy task and has required tremendous efforts. It is my hope that the insights we’ve gained from our years of looking at and understanding companies and their businesses will be useful as you go about your important work.

At Domini, we have created a process to evaluate potential investments using information not currently considered by the financial markets. In order to provide transparency in this process, we have created and published our global investment standards. We believe that companies will succeed and prosper in the long run when they do the following, among other things:

- Produce high-quality, safe and useful products
- Enrich the ecosystems on which they depend
- Invest in the health and development of their employees
- Treat their investors and lenders openly and transparently
- Strengthen the capabilities of their suppliers
- Contribute to the local communities in which they are located

To complete our evaluation, we begin with third-party social and environmental research; we then begin our proprietary research process which includes continuous in-depth media searches, review of publicly available company documents including regulatory filings and sustainability reports, communication and dialogue with the companies and their key stakeholders, such as labor unions, community groups, and non-governmental organizations. This process helps to build the demand for data on corporate social and environmental performance and to communicate our expectations to corporations and other investors.

We then create partnership and join powerful coalitions, such as the Carbon Disclosure Project, which is a group of investors with cumulative assets of $41 trillion, to collect and distribute information on the business risks and opportunities presented by climate change and greenhouse gas emissions data from the world’s largest companies. This year, to complement the effort of this organization, my firm wrote to nearly 200 companies around the world that failed to respond to the Project’s annual survey. We received 19 responses, with six respondents committing to completing to the survey next year. We consider it a success that six very large companies are willing to provide this valuable data understanding that it is important to us as investors.

On labor issues, our firm approached Gap to request a public report that would quantify the progress they are making to improve labor conditions in their global supply chain; they told us it was impossible. We were able to convince them otherwise. The resulting report not only set a new standard of transparency for the apparel sector, it has served as a model for companies in other industries. This report was then followed by work at the Global Reporting Initiative to include a sector supplement on global supply chain labor standards.

Responsible investors have achieved what others have not. We have measured the intangibles of the corporations in which we invest, created portfolios of companies which create wealth beyond stock price, and enjoyed competitive returns.

We've made real progress. But, let's not exaggerate our accomplishments. Change at a macro level is critical because ESG factors are generally long-term. They frequently focus on issues where risk and reward are best measured in years and decades, rather than months and quarters. In a world where institutional money managers and investors are forced to rely on stock price, a shift to long-term thinking is difficult. And since it seems that the world follows the investing style of institutions that manage money on a full-time basis, systemic change becomes impossible. Incorporation of different measurements on a macro-level, will force institutional managers away from stock price, and by default, reduce the short-term, shallow analysis which is commonplace today. Then, companies will begin to seek ways to add value rather than detract value recognizing that these practices will be rewarded by the financial markets.

Without macro-economic measures of long-term value creation, ESG-based evaluations will remain boutique. To be truly mainstreamed, macro-economic criteria need to be adjusted to 1. measure the impact of positive intangibles and negative externalities to society, 2. incorporate these into current GDP, and 3. ensure that the public understands these new metrics

ESG-based evaluations have started the process. Let us follow the path to building a financial services system that supports the creation of universal human dignity, ecological sustainability and financial wealth.

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Nicole Notat

President Vigeo Group

I'm going to talk to you about my company's business, namely the exercise of measuring tangibility and effectiveness in the action programmes and strategies of companies with the aim of incorporating social, environmental and societal factors into their activities and their traditional business relations.

Before speaking to you more precisely about this activity, I should clarify the philosophy which presided over the construction of the objectives benchmark and also the method of analysis.

Our analysis is exactly the same as what I have just heard, namely that companies today are being called upon more and more to think about their creation of wealth and values in the long term. They are also increasingly being forced to internalise objectives that in the past they perhaps externalised more to other companies and territories, to those parties concerned by their activities and decisions.

We therefore consider that it is definitely a challenge to provide investors and asset managers with information and useful analysis for their investment choices, but also behind this analysis is the idea that, by incorporating these social and environmental factors in their own performance factors, companies will open up new opportunities for themselves in innovation, creation, growth and potential new activities, and that, conversely, in neglecting these factors they are taking risks for themselves: risks of reputation and attractiveness, and legal risks. Consequently companies too have every interest in joining this movement.

Whoever says measuring a company's performance in social, environmental or societal terms means clarification of the objectives benchmark used to analyse companies and the choice of a method of analysis that is as robust and indisputable as possible. It is important for the objectives benchmark, for companies currently carrying out most of their activities at world level, to be based on objectives that are universal in scope and valid wherever the company is operating in the world.

But we know today that there are still not enough standards guiding and illuminating companies as to the nature of the objectives that they are to pursue and as to the nature of the indicators and the reporting that they must carry out.

We therefore made the choice of gathering together what exists today at international level that is more comparable, and more accepted by everyone, such as the principles of action, the recommendations, the standards laid down by the International Labour Organisation, the UN and the OECD in its recommendations to companies. From that, we have a set of principles of action at social and environmental level on market relations with suppliers and subcontractors, on territories, which make it possible to identify objectives on the basis of which to analyse and position the company.

Once this analysis and objectives benchmark has been established, it must of course be sectored. All criteria and principles of action are of value only in terms of their relevance and their sensitivity to the professional sector in which the company operates. And for us the method of analysis – it is a choice – aims to measure effectiveness beyond the indicators of results, which are indicators that we produce, and also to measure the efficiency of the company's managerial system, i.e. to have indicators of the relevance of the objectives pursued by the company at social, environmental and societal level, to have indicators of the coherence of their deployment within the whole managerial chain and on the company's entire range of activities and, finally, to have indicators of the quantitative or qualitative results of all these objectives.

You will understand that in order to carry out this work our fuel, our raw material, is information. And with the challenge of the reporting which companies are more or less capable of performing on all these objectives today, the question arises in time, I think, of a standard or a benchmark to facilitate the objectives on the basis of which to perform this reporting.

As things stand, we collect information from companies themselves, from what they have available, on which we can also question the company. But we also collect the information produced by all the parties involved in the company, either directly or indirectly, which allows us to compare different kinds of information and thus fine-tune analyses for the investors and managers interested.

In conclusion, I would say that today these data, and this information, contribute to the construction of indicators which report the relevance, effectiveness and tangibility of the company's action and its results on these social, environmental and societal factors.

You will be aware that, through a forum organised by ISO and the international standardisation bodies, there is discussion at international level about whether a standard should be constructed for the social responsibility and sustainability of companies. This work now exists and has been going on for three years already, although it is still far from being finalised. As you can imagine, this objective is very difficult to finalise. Incidentally, I mention this because it reflects the feeling today that it is necessary to move towards normative benchmarks in this field and towards indicators that are both relevant and comparable and can therefore guide the companies that are reporting on these points.

Thank you.

Lothar Meinzer

Director Sustainability Centre BASF

Good morning, Ladies and Gentlemen,

From a company's perspective if we think of environmental responsibility, social cohesion, what comes to mind is the term CSR (Corporate Social Responsibility), which explicitly means mainstreaming environmental and social concerns into business activities to create added value.

If you look at companies, and you will see hundreds and thousands of them, they have integrated these environmental and social concerns via their Corporate Social Responsibility policies into their decision-making processes, into their management systems and into their reporting systems. So basically every company has integrated this concept into risk management in order not only to ensure that laws are respected but also to minimise material risk and to reduce '*reputational*' risk.

We have integrated CSR to enhance our business, to strengthen our brand image, to optimally leverage our resources and to generate beneficial business environments. And we also see that we can create new businesses by CSR, by accessing new target groups and markets, by new business models, by increasing our market differentiation by CSR and also by increasing our customer retention rates.

So there are hundreds and thousands of single and company specific experiences integrating non-financial performance indicators. Therefore we welcome the initiative of the Commission to initiate a so-called European CSR-Alliance which aims to draw on these individual experiences and try to bring them to a higher more comprehensive level. We are doing this by entering so-called laboratories where companies that have specific experiences in specific fields like demographic change, innovation, supply chain, etc. meet together with their stakeholders to move these issues onto a higher level.

I'm happy that there is one specific CSR laboratory which is run under the leadership of Lloyds TSB and Telecom Italia together with other companies and stakeholders. It deals with the issue of market valuation of financial performance and non-financial performance. The objective is to identify core areas of non-financial performance that are important to both companies and investors. They want to identify broad metrics for each of these core areas that are applicable to companies across markets and sectors. They want to establish the linkages between the measurement of non-financial performance and financial performance. They will explore strategies for managing and communicating this performance in the core areas as well as include the linkages to widely used management models. So the European CSR movement and the European CSR Alliance is the key actor to bring forward these issues that are being discussed here today.

Let me, in the second part of my presentation look at a few examples in a single company, namely BASF, and look at how we integrate non-financial considerations into measuring, into decision-making and into reporting.

Let me first tell you that we are really not short of indicators. This applies at company level, community level, and national level; the indicators are there.

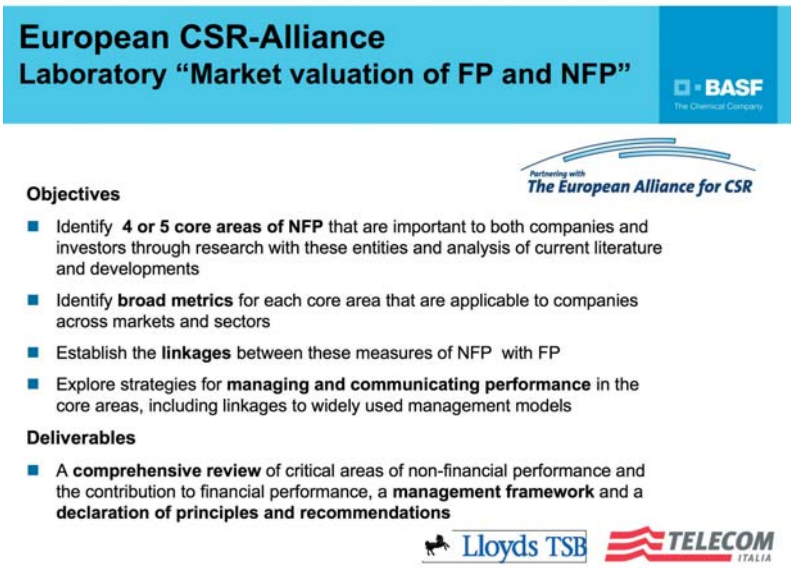
For companies for example we look at global reporting initiative indicators, the so-called G3 guidelines at the moment, which give a balanced picture of economic, environmental and social indicators. We report on these indicators, and we measure these indicators, as you see on the left side of this chart. We give an extract of these indicators in our annual report on a very prominent first page as BASF key data. So there's no problem about indicators.

The question is how you use these indicators, and I want to give you two or three examples of that.

The first example is what we at BASF call 'value-based management' or abbreviated VBM! It is our company's steering principle and our tool to implement the strategic guideline "We earn a premium on our cost of capital". VBM is focused on our key financial indicator, the EBIT after Capital

Cost. It is derived from the cost of capital concept. To implement this focus on value into the organization, we use the value drive concept, which provides a methodology to create awareness for key drivers of value for BASF. It recognises the fact that there are other indicators, that there are various value drivers that in the end drive the value of the whole company. And by integrating these so-called value drivers into our value-based management, we try to integrate financial, non-financial, environmental and social indicators into that chain. These two concepts, the value-driver concept and the cost of capital concept, are supplemented by a third key VBM element, the link between the strategically aligned value drivers and the target agreement process. The last element makes sure that VBM is anchored concretely in the organization So this is a management system that relies upon financial and non-financial indicators and the measurement of these indicators.

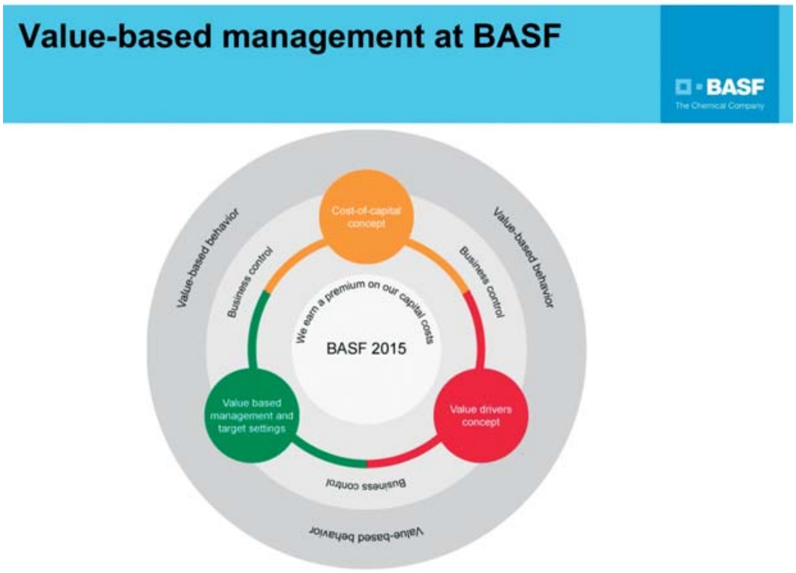
The second example is a tool. Based on indicators you have to develop tools to measure things. BASF for example has developed what we call the 'eco-efficiency analysis tool'. This tool is a key tool for our internal decision-making processes when it's about decisions on the future products and processes we use. And with this eco-efficiency analysis tool we are able over the whole lifecycle to assess both the total cost and the total environmental burden of a product or a chemical process in this case. And we are able to compare different solutions in order to be able to decide upon which is the most 'eco-efficient' solution for a specific challenge. This is on the left side of the chart where you see the classical eco-efficiency analysis based on cost and environmental burden. We have developed this instrument further into what we now call SEEbalance tool. This tool also includes social indicators to give us a complete picture based on the environmental effects, on the finan-

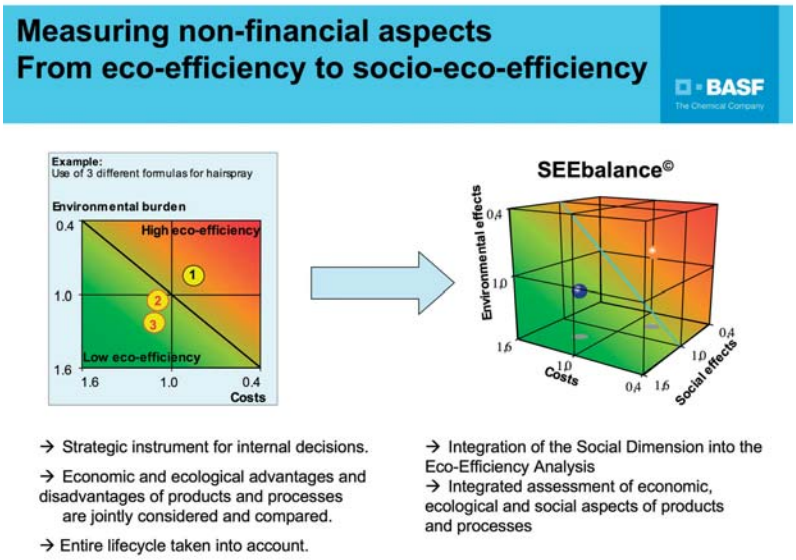


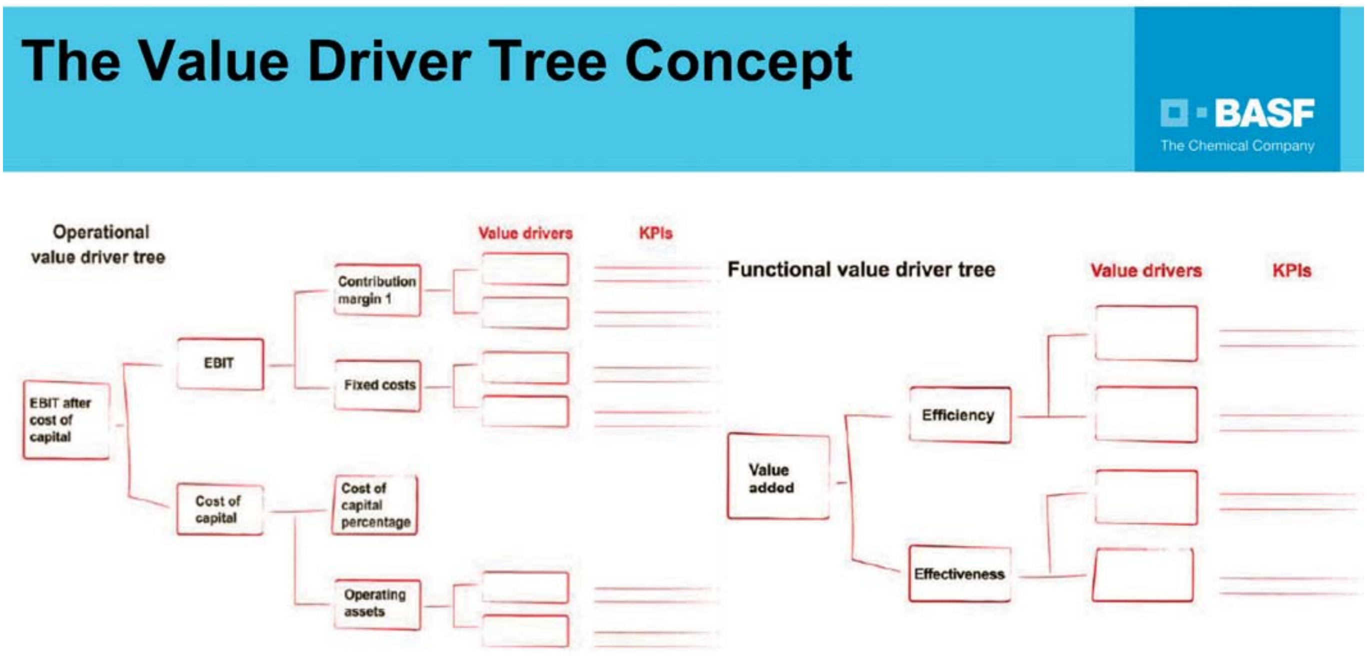
cial effects and on the social effects of a product or a process and therefore it is our key decision-making tool in strategic planning.

And the third and last example is what we depict in our annual report as BASF's 'value-added statement'. And this value-added statement is based on a classical financial balance sheet but it looks at how we spend the value we have created. Who are the stakeholders that benefit from this value we have created? You see it's about value created for employees, for the state in the form of taxes, for the shareholders, and for the creditors.

So let me conclude by saying: the indicators, the measuring tools, and the management systems are there. Now it's all about integrating. This goes at company level and I am happy and proud to say that from next year BASF will integrate its financial, environmental and social reporting into one company report. This demand for integration should also apply at the level of states. If I look at the European Lisbon Growth Strategy, if I look at the European Sustainable Development Strategy, if I look at the European CSR Strategy, I see that there too the missing link is integration.







Non-financial aspects in BASF's reporting
Key Data/GRI

BASF
The Chemical Company

Key Data BASF Group

Economic data

		2006	2005	Change in %
Sales	Million €	52,610	42,745	23.1
Sales by region (location of customer)				
– Europe	Million €	29,529	23,755	24.3
Thereof Germany	Million €	11,062	8,865	24.8
– North America (NAFTA)	Million €	11,522	9,479	21.6
– Asia Pacific	Million €	8,102	6,500	24.6
– South America, Africa, Middle East	Million €	3,457	3,011	14.8
Income from operations before depreciation and amortization (EBITDA)	Million €	9,723	8,233	18.1
Income from operations (EBIT) before special items	Million €	7,257	6,138	18.2
Income from operations (EBIT)	Million €	6,750	5,830	15.8
Income before taxes and minority interests	Million €	6,527	5,926	10.1
Net income	Million €	3,215	3,007	6.9
Earnings per share	€	6.37	5.73	11.2
Dividend per share	€	3.00	2.00	50.0
Equity ratio	%	41.0	49.1	–
Return on assets	%	17.5	17.7	–
Research and development expenses	Million €	1,277	1,064	20.0

Environment, safety and product stewardship*

		2006	2005	Change in %
Operating costs for environmental protection facilities	Million €	657	623	5.5
Investments in environmental protection	Million €	116	78	48.7
Emissions of greenhouse gases (CO_2 equivalent)**	Million metric tons/year	25	24.8	0.8
Emissions to air (air pollutants)**	Thousand metric tons/year	49.1	50.9	-3.5
Emissions to water** of: – Organic substances	Thousand metric tons/year	32.8	44.2	-25.8
– Nitrogen	Thousand metric tons/year	6	8.8	-31.8
– Heavy metals	Metric tons/year	35	45	-22.2
Transportation accidents	Per 10,000 shipments	0.45	0.47	-4.3
Number of environmental and safety audits		90	83	8.4

Social responsibility

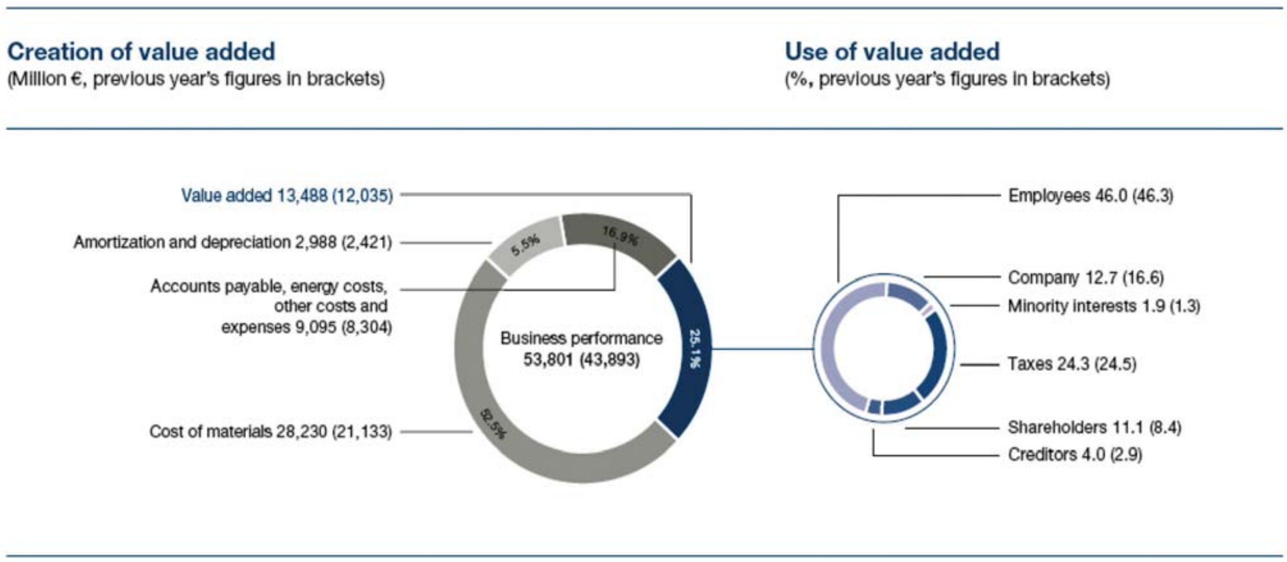
		2006	2005	Change in %
Employees as of December 31		95,247	80,945	17.7
Trainees as of December 31		2,280	2,330	-2.1
Personnel costs	Million €	6,210	5,574	11.4
Donations and sponsoring	Million €	67.2	56.8	18.3
Annual bonus	% of Group companies	73.5	75	–
Lost time accidents*	Per million working hours	1.67	1.78	-6.2
Occupational diseases	Per million working hours	0.3	0.4	-25.0
Number of occupational medicine and health protection audits		28	31	-9.7

* Excluding companies acquired in 2006.
** Excluding emissions from oil and gas production

GRI Index

GRI Reference	Indicator
General	
Vision and strategy	
1.1	Sustainability vision and strategy
1.2	Chief executive statement
Profile	
2.1, 2.2–2.8, 2.9, 2.10	Organizational profile
2.11, 2.12, 2.13, 2.14–2.16	Report scope
2.17, 2.18, 2.19, 2.20, 2.21, 2.22	Report profile
Governance structures and management systems	
3.1, 3.2–3.5, 3.6–3.7, 3.8	Structure and governance
3.10–3.12	Stakeholder engagement
3.13, 3.14–3.16, 3.18, 3.19, 3.20	Policies and management systems
Economic performance indicators	
EC1, EC2	Customers
EC5	Employees
EC6-EC7	Providers of capital
EC8, EC10	Public sector
Environmental performance indicators	
EN3, EN 17	Energy
EN5	Water
EN6–EN7	Biodiversity
Emissions, effluents and waste	
EN8–EN10	Greenhouse gases, ozone-depleting substances, ai
EN11	Total amount of waste
EN12	Water
EN13	Significant spills
Products and services	
EN14	Products and services
EN16	Compliance
EN35	Total environmental expenditures
Social performance indicators	
Labor practices and labor quality	
LA1, LA12	Employment
LA3, LA4, LA 13	Labor/management relations
LA5–LA6, LA7	Health and safety
LA9, LA16	Training and education
LA10–LA11	Diversity and opportunity
Human rights	
HR4	Nondiscrimination
HR6, HR7	Child labor, forced labor and compulsory labor
Society	
SO1, SO4	Community
SO2	Bribery and corruption
SO3	Political contributions
SO6, SO7	Competition and pricing
Product responsibility	
PR1, PR6	Consumer health and safety

BASF's value-added statement in Annual Report



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Stephen Pursey

Head of the ILO Integration Department,
International Labour Organization

Thank you to the organisers of this very stimulating conference for the chance to discuss the challenge of measuring decent work.

Employment figures prominently in the classical measurement of GDP – and as Professor Frey say yesterday, it is also a major determinant in people's assessment of their overall happiness. It's a vital input to production and central to our sense of identity, self-esteem and social relations.

Workplaces are – if you like – where the values of the market meet those of society. Furthermore, progress in making work less physically demanding and more materially rewarding has been closely linked to the replacement of human effort by machines, and thus the use of natural resources. So the quantity of work available and its quality is thus very high on political barometers of what people expect from their leaders. And these are global phenomena; the aspiration for decent work is universal.

Now progress towards decent work first depends on the freedom of women and men to express their concerns, to organise, to defend their rights and to participate in the decisions that affect their lives.

Second, it requires opportunities for work that is productive and delivers a fair income, and that in turn must be built upon entrepreneurship and enterprise, and an enabling environment for investment.

Third, it calls for action to promote security in the workplace, decent conditions of work and social protection for families.

And fourth, social dialogue – or labour management relations as they say in the United States – between representatives of governments, trade unions and employers' organisations is both an aim in its own right and a means to achieve the overall goal.

Now this approach to decent work, as well as being the mission of the ILO, has also been endorsed by the UN Summit in 2005 as a global goal, central to the shaping of a fair globalisation, and by numerous other regional meetings including the European Union and last summer the G8. It's also part of the millennium development goals as a key driver of poverty reduction.

Measuring decent work thus requires indicators that capture both the more easily quantified dimensions and for example the quality of governance systems. I'd like to draw your attention to five major challenges:

The first is that unlike Europe and most members of the OECD countries, many developing countries have much weaker data, particularly on the more qualitative dimensions of decent work. Support for the collection and analysis of labour statistics has not been part of the development assistance portfolio of European countries, but I hope that some of the ground-breaking work we're doing with the support of the European Commission means that it will be in the future.

Second, some of the classical labour market indicators were developed mainly by already industrialised countries and have less value to many developing countries. For example, in countries with no unemployment benefit system, women and men have to find some sort of work. The oversupply of labour leads to a large number of people working unproductively for very low earnings. However, the strict definition of unemployment includes the stipulation that a person worked for more than one hour in the previous week. So we need a broader measure of labour underutilisation that includes not only being completely without work, but also the situation of casual labourers who may wait for days at the crossroads before picking up a few hours work, or street traders who may sit with their wares all day and make only a couple of sales. We do not have an adequate picture of the size of decent work deficits, either globally or nationally. And this means that inadequate attention is given in poverty reduction strategies to improving the quality of employment.

My third point is that more and more developed countries are supplementing their quantitative data on employment with surveys of perceptions. In Europe we have data on the percentage of employed people who *think* it is very likely or quite likely that they will lose their job in the next six months. This perception of insecurity is an important determinant of well-being and likely affects behaviour. Incidentally in 2003, nine percent of respondents answered 'yes' to that question in the EU25. Few developing countries have such types of vital information. ILO could help to disseminate best EU practice on such opinion surveys.

My fourth point is that a strategy for improved global information on progress towards decent work must focus on equipping national policymakers with the information they need to determine and assess policies. These considerations suggest that the way forward is to develop a methodology for country profiles on progress using a comprehensive global template of the dimensions of decent work. Not all countries will have data for all dimensions but they may be able to gradually build up these information sources. Furthermore, numerical data will usually need an accompanying narrative to provide a context for assessing progress.

My fifth and final point is that if we are to undertake the considerable restructuring of production and consumption needed to adapt to and mitigate climate change, there will also be a need for a major transformation in the world of work: job losses as well as job gains. Intelligence strategies will need much more information about what constitutes sustainable employment in the environmental sense and economically and socially. Now the ILO Governing Body last week endorsed proposals for a green jobs initiative to support workers and employers, and governments through this transformation. Again, industrial countries will need to support the developing world in this approach and Europe is well placed to take the lead.

To sum up, decent work embraces the multiple dimensions of what makes work valuable to individuals, communities, companies and countries. The ILO has the responsibility within the UN system for labour statistics and we need your support in addressing the challenges of finding new ways to measure decent work and expanding collection of the basic necessary statistics. The decent work concept bridges the economic, social and environmental pillars of sustainable development. Partnerships are thus vital in broadening the measures we have to assess progress and ensure that we can connect them in ways that enable policymakers not only to balance the trade-offs but perhaps more importantly to spot and exploit the trade-ins. Thank you very much.

- **Hazel Henderson**

  Club of Rome,
  Chairwoman of Session 2

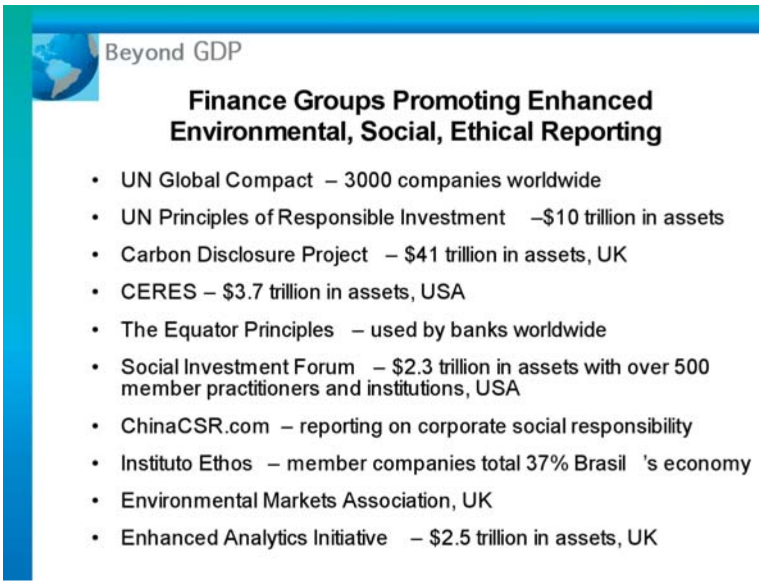
Good morning. The panel this morning will pick up from a question that came up at the end of the session last night, namely about what is business doing and about finance. I have been involved in this area for many years and so what we want to talk about is just to give you an idea of all the businesses and the financial institutions, as well as organisations like the ILO, that are already incorporating social and environmental indicators into the way they manage assets.

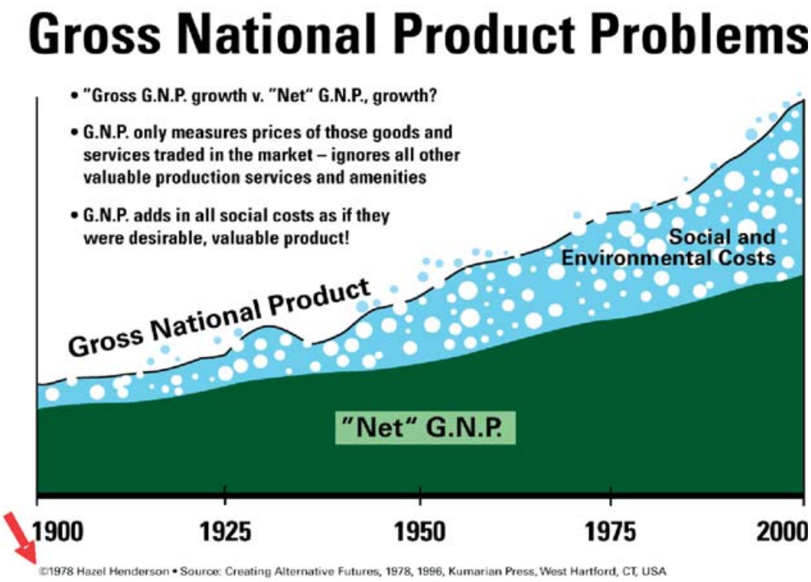
So we have a wonderful panel this morning we'll get into it in one moment. There was one gentleman from Ghana who was unable to join us and we are sorry about that. But what we are going to do is basically look at some of the examples from the financial sector and the business sector where these companies already do what we call 'triple bottom line' investing. These are just examples of some of these companies. Now many of them have come together in organisations, and pension funds representing many trillions of dollars and now using what we call enhanced analytics for risk management. So since the micro-economists and the accountants have been doing this already at the level of the firm for nearly 20 years, is there really any reason why we cannot accelerate the process of incorporating this triple bottom line analytics into GDP?

So basically, why do we do this kind of analytics? Because they avoid risk, and whenever you internalise social and environmental costs into your balance sheet you are protected from unavoidable risks. The new book 'The Black Swan' is really about this so that's why we do it in management.

Personally I have been concerned about this issue for 30 years so I am very delighted to be here. I think that what we are talking about here is that the information age has now become the age of truth and all NGOs now can see when companies don't perform for the environment and for social purposes, and so we have a lot of new ways of keeping companies accountable. Now we are moving on to changing GDP at government level.

Ms Hazel Henderson





- **Hazel Henderson**

Chairwoman

I would like to start by introducing my friend, Carole Laible, who is the President of the Domini Social Investment Group in Boston, and you will probably all have heard about the Domini Social 400 Index. So Carole, the floor is yours.

For speech by Carole M. Laible, see page 62.
For speech by Nicole Notat, see page 64.
For speech by Lothar Meinzer, see page 66.

- **Hazel Henderson**

Chairwoman

I'm very happy to introduce our friend from the ILO, which has been a leader in all of this kind of reporting initiatives. Mr Stephen Pursey the floor is yours.

- **Stephen Pursey**

International Labour Organization

Thank you Hazel and thank you also for all the support you've given to the ILO's goal of decent work and also for your own pioneering efforts in including employment in your quality of life indicators. I know that you're frustrated that public authorities are lagging somewhat behind the leaders in the business world.

For speech by Stephen Pursey, see page 72.

- **Hazel Henderson**

Chairwoman

So we would like to have a lot of discussion. I hope that we get lots of questions. And this green jobs initiative is I believe extremely important. In the United States most of the socially responsible companies that I work with and many of the pension funds have joined in the green jobs initiative. My passion is growing the green economy and I think that it really comes out of this kind of new analysis. Once we internalise all those social and environmental costs at both the micro level of companies and at the macro level, then we have a way of steering our economies toward building this entire new sector.

• Nick Marks

New Economics Foundation

I really applaud the panel for talking about how we internalise the externalities but I think the challenge of well-being is to externalise the internalities. Products are often actually dependent on a cycle of dissatisfaction in that marketing tends to create needs and wants in people so that they don't actually have to try and sell more products. And if we're going to move towards a sustainable green economy then we need to actually think about the products that companies sell and whether those products are actually enriching people's experience of life. If they're not enriching people's experience of life and actually creating a sense of well-being in the way they live their lives, then however eco-efficient they are they're still not delivering public good for people.

I'm wondering whether in your investment decisions you look at the product and you look at what that product actually is. Do you look at the marketing of that product and whether it's creating false desires particularly in children? Are they being products that they don't need, that are not healthy for them?

• Carole M. Laible

Domini Social Investments

The short answer is 'yes we do'. We look at consumerism, marketing and advertisers and within industries we identify key concerns in terms of companies and marketing to children, and any issues of that sort. We do, and at industry level we determine what the key issues are.

• Anders Wijkman

Member of the European Parliament

One question is directed primarily at the financial community. The point was made by Carole that change at macro level is important otherwise responsible investment behaviour will not be the rule but the exception. And then I also think that Nicole Notat said that we lack global standards and frameworks. Now of course the private sector is not homogeneous, but heterogeneous. We have quite a number of voices from industry who are not really interested in reforms like this, and the whole debate on social responsibility has been very much at the European level – something of a voluntary nature, no mandatory rules, no mandatory frameworks, etc. Now apparently in this particular area when we talk about indicators and internalisation etc., we need things to happen at the macro level. Can you explain how you are dialoguing with ministers of finance, ministers of industry etc. because there you very often find resistance, because they know what they do and they don't know what new would be, so that's the question.

The other questions is: the architecture of business models today is by and large such that you earn revenue only by selling more volume; there are exceptions but most companies are rewarded that way. Walter R. Stahel has written a fascinating book called 'The Performance Economy' where he turns the whole thing around and says, if industries and companies offer services more than products you could move away from only looking at volume and look at quality, performance, etc. To what extent is that being factored into your deliberations?

• Nicole Notat

Vigeo Group

At this stage it's clear that, in terms of standards for sustainable development and corporate social responsibility for companies, as things stand there aren't really any standards for companies to judge their performance by and the same goes for investors. And maybe that's the responsibility of the market authorities; they could react to that – or alternatively the public authorities. At European level and internationally this is a whole area where I think more could be done. And I was involved in the environmental panel in France and there it was a pressing issue trying to establish standards and, trying to establish indicators. But it's true that as things stand we haven't yet managed to find a solution to this problem.

Vittorio Prodi

Member of the European Parliament

I'm very interested in this conference because it is of vital importance for our future. So I have to say that I appreciate the idea of underlining the importance of intangible assets within companies. This is just the first step though; if we want to have really sustainable development we have to have a different kind of development that values intangible goods, rather than just intangible assets so that companies keep selling hard and material goods. So the Lisbon Agenda, the Lisbon Strategy, is important because we can create a different society that is more appreciative of immaterial goods. This is the change we have to make. That is, acknowledge that this kind of development, which is to some extent represented by GDP, is unsustainable. And so we have to find a consensus on a different way, on a different kind of development. That is why we need a change in culture because it has to be consensual. This is where we should be moving and this is what we need indicators for. But indicators mostly on immaterial development; to dematerialise our society and somehow a corporation is not enough. We need something much more profound, and I feel that in this sense Europe has the culture, and the spirit within this Parliament to lead this movement, this change. But I would say we need indicators of dematerialisation in our societies. Energy intensity is not enough. It could even be misleading because, by delocalisation, we might have pushed away energy intensive industries, perhaps toward less advanced countries causing much more environmental damage. We have to have indicators that incorporate this system of values and to measure the way toward this different development that would bring a higher civilisation than the present one.

Caroline Lucas

Member of the European Parliament

I thank the previous speakers, and I have to say that I've been enjoying the conference. However, I must confess to a certain degree of mounting frustration. We keep talking about evermore important bits of data, like this very last most important bit of information about indicators. But it does strike me that we really do risk going down in history as the species that spent all its time monitoring its extinction rather than taking active steps to avoid it.

I think that my question is really about what are the obstacles to actually putting these debates about indicators into operation? What stops us actually implementing these ideas? Because in spite of all the very nice words I've heard from the businesses on the platform as a member of this political house, I have never ever once been bothered by a business who was asking me to improve standards, to be more ambitious in legislation. The message of a policymaker is always about diluting timetables, diluting targets, diminishing ambition.

And if I might offer an answer to my own question I think it is because in spite of the fact that we are still taking about supplements and complements to GDP, we are not really taking the bull by the horns. We are not saying: Is GDP in any case, in its own terms, actually telling us anything useful about people's increased well-being? Because there's so much evidence out there now that once a certain level of needs are met increasing GDP doesn't actually improve our life experience. And in fact beyond a certain level more and more GDP actually leads to more breakdown, more problems and so forth. And so in a sense I think that if we could finally understand that GDP isn't actually telling us anything very useful and that people's well-being is far more dependent on relative income than absolute income, we could start putting an important element of equity back into this debate and we could start making the policy space we really need to talk about, namely what companies really need to do to ensure that sustainability and equity are at the heart of the policymaking process.

Hazel Henderson

Chairwoman

One of the new indicators for investors now is looking at whether companies lobby for higher standards or whether they lobby for lower standards. And so this is becoming an important investment criterion. Do companies really walk the talk, or do the lobbyists say something different about lowering the standards where publicly they talk about the good standards. I feel I ought to ask how do you see this at BASF?

Lothar Meinzer
BASF

Just a brief addition or a comment to the previous speaker over here who said that most of the business models of today are based on selling more volume, which is not the experience that I have at least.

I just want to give you one example. BASF is in the B2B business and the aim is not selling more volume but creating more value for us and our customers. For example we are a big supplier of the automotive industry, e.g. plastics or coatings. But instead of selling a ton of coating, we are paid for the amount of coated cars, and within that business model, we are striving to use the minimum volume with the highest efficiency.

Regarding another aspect which has been raised before on a national level, I just want to point you to the German Sustainable Development National Strategy, which was released five years ago. It is based on measurable indicators of targets in four areas. I think this is a great example of going beyond GDP and these four categories are: intergenerational equity, quality of life, social cohesion and global responsibility, and these are determined by 21 measurable indicators. This is a good way to have another point of view on the wealth of the nation.

Francois Schneider
Research and De-growth

What would be the decision if it turned out that an increase in ecological or social indicators, or societal indicators implied a reduction in economic activity? We were going to have a conference on this in April in Paris.

Stephen Pursey
International Labour Organization

I think it's important to realise that statistical measures and indicators are tools for people to discuss and change things. So from an ILO perspective, the value of indicators is not necessarily that we get nearer to some higher truth; it's that people can actually use them to talk about ways to change what's going on.

I would say that the number one thing to do, if you have indicators which mean a company calls into question its economic sustainability or its environmental sustainability, is to start talking about it preferably with the trade unions and get some agreement as to how to change things. You might either have to change to a different business model that can survive or to work for an appropriate solution. That will be at the level of the company, but I would suggest that the sort of things that we're aiming for would also enable you to have that sort of discussion at the level of a country about a development strategy. For example there seems to be quite a lot of evidence that insulating buildings is one of the most effective ways to reduce fuel use, by improving the conservation of energy. It also happens to be reasonably labour intensive, and most likely will require an upgrading of skills. So there's a clear win/win situation to be achieved by putting out these indicators and talking about what to do with them.

Marcello Palazzi
Progressio Foundation

In a way the transition we are going through also touches upon what we used to call the digital economy in industries like the software industries. This is an area where Europe has tried with the Lisbon Council, and the Lisbon Agenda, to be more competitive. I think they should pay some attention to how we can become much better in Europe by developing the real digital economy. AS you know, in the US after all a lot of the success in the last few years has been through Google and other such digital companies. That, I think, would also fit very well with the Lisbon Strategy and the Lisbon Agenda.

The second point which I made briefly yesterday is that this question of indicators has also a local dimension. Again in Europe for ten years or more there have been campaigns to make cities more sustainable, since cities and regions are very important in determining how corporations and other economic actors actually work. So how do we link up with the local framework? Cities like Freiburg and Basel have done enormous work in making their economies more sustainable, so that is important too.

- **Mike Salvaris**

  RMIT University Melbourne

My question is directed to Stephen Pursey. It is about the ‘mismeasurement’ of employment. The most common international measurement of unemployment used in most countries is effectively working for one hour a week. It is an extremely crude measure, and very misleading. In my own country patterns of work have changed dramatically over the last ten years, so that long-term unemployment is growing, there is involuntary unemployment of different kinds, there is much more part-time work, much longer hours, and quite a lot of work stress. In my view, the continued use of this measurement of unemployment by politicians especially is almost as gross a mismanagement as GDP might be considered of well-being. What we need, I think, is some sort of decent work index, which takes into account not only the true measurement of actual work but also the conditions of work, to answer your question about where we might be heading with new employment measures.

- **Stephen Pursey**

  International Labour Organization

Very quickly, I agree. One of the problems with changing statistical systems on this is that a very large number of countries are geared up to doing it that way. Changing it is really like turning an oil tanker around. I think the logical way forward is to actually have more varied definitions of what constitutes work.

I think we are always going to find it very difficult to capture it in one indicator, and that would be my caveat about the idea of an index, i.e. that for the moment I cannot quite see how to weight for example fundamental principles of rights at work, which I think have to be part of your concept of decent work, with the total numbers in employment in proportion to working age population.

I think they are two quite different things, and trying to work out the weighting of the one or the other is beyond me and I think beyond most people. So I would suggest we need a range of indicators so that people can actually see the various dimensions of decent work and use the appropriate one for the issue that they are addressing.

- **Catarina Roseta-Palma**

  Lisbon University Institute – ISCTE

I would like to make a comment, in the form of a question specifically for BASF.

The concept of the triple bottom line – although it is very user-friendly because what it means is very clear for everyone – is in a way slightly misleading, or even very much misleading, because it is misleading to think you can have a bottom line for people or for the planet, in the same way as you have a bottom line for profit, which is monetary (you sum it up and you know how much it is, there is a number).

I was wondering how BASF calculates the environmental burden, and how you proposed to calculate the social composite indicator, because you showed the graphical view of one specific point. The costs are the costs. You sum them up and you know how much they are. I was wondering what weightings you use for the environmental burden indicator and also for the social burden indicator, because I think it is really important, if companies are going to start using and reporting information, that they do not all use different weightings and different aggregation methods, which they sort of choose for themselves. We can assume that they choose them for the best reasons, because they really think they are the most important weightings, but they may also manipulate them to have the best indicators with the basic company information.

A second comment: if we do not even have an agreement on what the macroeconomic indicator weightings should be, and if we do not even have an agreement on where we want to aggregate macroeconomic indicators, I do not think it is really useful for legislators to think that they should oblige companies to report information in a specific way, the composite indicator way. I think we should not be talking only about macroeconomic indicators, I think people have different opinions; it is not clear that weighing everything and putting everything as a simple indicator is useful, so maybe for companies it might not be that useful either.

• Jan Juffermans
De Kleine Aarde

My name is Jan Juffermans from 'De Kleine Aarde' in Holland, an NGO working with global footprints for 9 years already. I think what is lacking is a discussion about a level playing field. I would expect this from the [business] sector, because in agriculture for example we see that for 20-30 years already organic farmers have been suffering because the playing field is not level. So there is no fair competition. Although we have all the indicators for this, and there is a 1989 report in Holland that shows that if polluters paid in Europe, organic produce would be cheaper on the market. But there is no sign of politicians reviving the "polluter pays" principle and bringing it back to life again.

• Hazel Henderson
Chairwoman

Good point. Yes. This is what we are all talking about: how do we internalise all those costs in the price of the product?

• Laszlo Pinter,
International Institute
for Sustainable Development

My name is Laszlo Pinter. I am with the International Institute for Sustainable Development in Canada. My question is: How do you calibrate the indicators that companies are using? I think it could be a general question. Basically, the question is: How much progress is enough? And this question is related to what a previous speaker brought up: How do we link measuring corporate level performance and benchmarking it to a public at a higher level, whether at either community or regional level or up to the global outcomes that we know we have to achieve.

• Carole M. Laible
Domini Social Investments

I think that some of it depends on the activity. There are certain industries and practices which we consider unsustainable and won't invest in at all, and then there are other issues and concerns where we weigh performance relative to performance in a peer group. So we really take both a top down and bottom up approach.

• Hazel Henderson
Chairwoman

I do not know whether any of the members of this panel would like to address the point made by our friend from the Netherlands concerning subsidies to unsustainable activities. This is such a big issue; we are dealing with this in the United States right now, with the energy bill. There are enormous subsidies to coal, oil, nuclear, and then they expect solar and renewables to try to compete.

Does anyone have a comment on how we deal with these perverse subsidies from governments?

• Andreas Siegel
Council of Europe

I have two questions.

First: Can we really say today that companies are interested in the long term rather than the short term? Because if you listen to what speakers said at the beginning and if you look at the way the financial system works through the stock exchanges where the short-term profit is the most important thing, I am sure there are some companies that are interested in the long term but aren't they just a drop in the ocean? Shouldn't we be looking into overhauling the financing mechanisms which encourage people to think in the short term?

Second: On indicators in companies, because we have been talking about progress and well-being indicators, if we want well-being indicators, don't we have to ask people who work for those companies as well as their customers, the different stakeholders, what they consider well-being to be? We surely we have to take that into account in order to have better indicators.

• Hazel Henderson
Chairwoman

Yes, on this issue of financial reform – reforming what I call the global casino – we are beginning to see the necessity of doing this and the issue that you point out is so crucial. How do we go from the short term to the long term, when we have all the Wall Street analysts forcing companies to raise their earnings every quarter? Does anyone on the panel want to address this issue, short term versus long term?

• Lothar Meinzer

BASF

Just a quick remark. First on the question regarding the eco-efficiency analysis. I am very happy to pass on the details to you. This method is not a secret method. It is published, there have been critical reviews by independent institutions and the indicators we use are also published. So for example in the environmental field, there are the classical indicators like land use, toxicity potential, ozone depleting potential, global warming potential, etc. All these indicators, as I said, are published.

Short term versus long term. Of course that is the discussion. We as a company have to combine the two. Our investment cycles are 20, 30 or 40 years, so for example if we are building a steam cracker – that is the heart of a chemical plant – it will be running for more than 30 or 40 years. At the same time, we have to publish our quarterly reports, and what they reflect is the outcome of our long-term strategy and our sustainable success. We are not interested in trying to achieve improvements for just a few quarters.

• Patrick ten Brink

Institute Of European Environmental Policy

I am Patrick ten Brink from the Institute of European Environmental Policy. I just want to ask business about your recommendations for government. Because GDP does not measure liabilities, its assets or risks, and you were talking about the importance of measuring one's risks and liabilities, and the asset base, what sort of recommendations would you have for governments in terms of them dealing with climate risk or biodiversity loss risk? What sort of assessments are needed and what sort of additional evaluations are needed?

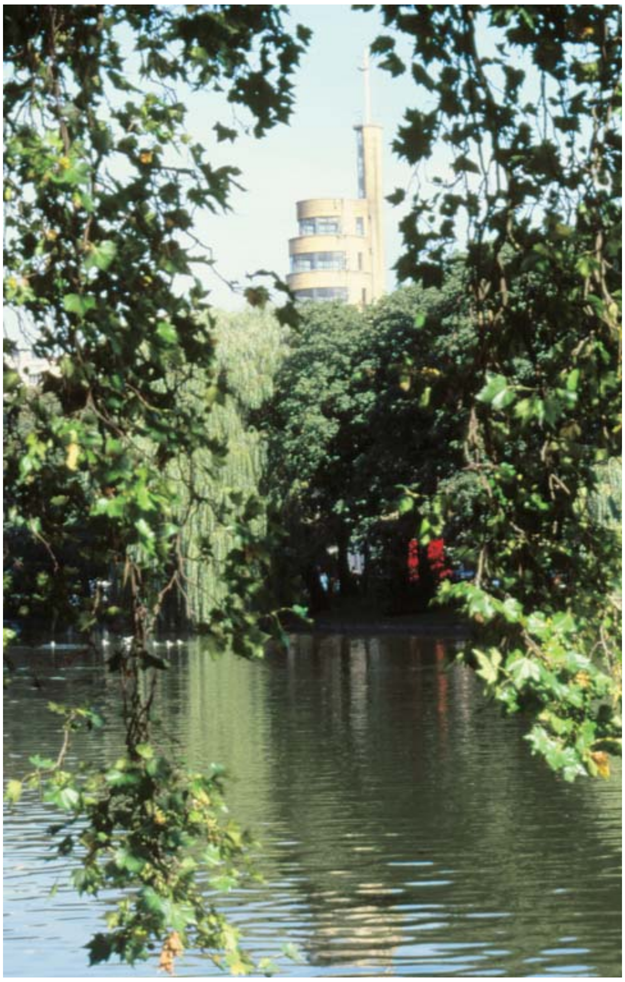
• Hazel Henderson

Chairwoman

This is a very important issue for all of us. This is the reason why we are here talking about the need to go beyond GDP. Because until governments internalise their own external environmental and social cost into their score card, whether we call it enhanced GDP or whatever, then companies like ours are always going to be swimming upstream against government performance. So it is very important.

• N.N.

Just one comment or question. Wouldn't it be easy to convert the short-term measurement into longer-term measurement that includes social and ecological issues by demanding that corporate boards convert the bonus structure for CEOs, etc. so they receive a bonus at the end of their two-year, three-year contract, rather than each quarter. Wouldn't that be easy?



Session 3
New measures of progress – Obstacles and opportunities

Pier Paolo Cento

State Secretary for Economic Affairs and Finance, Italy

I am very pleased to be here this morning so that I can tell you about the contribution that the Italian parliament and the Italian government are attempting to provide in terms of ensuring that not only do we have theoretical thinking but actually tangible progress so that we do in fact manage to move beyond GDP. Because GDP should not be the only economic, social and environmental indicator that we have and that we use.

We are convinced that the moment has come for us to move on from theoretical rhetoric, from academic reflection – no matter how important that may be – to actually trying to identify instruments, standards and rules which will ensure that we have binding national legislation on scientific research into indicators that can be used alongside GDP. Increasing international attention is being paid to issues linked to environmental sustainability, which shows that we do need an integrated reform of our approach to the major economic indicators and public finance instruments. We can then measure the effectiveness of national and regional policies in a timely fashion, and actually assess the cost and effectiveness of implementing international agreements on sustainable development and moving towards more sustainable development.

We do need a legislative framework which will ensure that environmental indicators are effective and which will ensure that environmental indicators stand side by side with economic and financial indicators so that we are no longer as partial as we have been in the past.

And the approach from the past has done nothing good for the environment or indeed the economies of nation states. There is now a wide ranging debate amongst the scientific community too, which puts the subject of the limited use of resources, the limited existence of resources, and the limited availability of resources right at the centre of the agenda. And that is another reason why economic growth, and economic development cannot continue to be a dogma, taking no account of the fact that natural resources are limited. Part of the scientific and economic community has started to introduce into the debates the question of economic "ungrowth." Not as a return to the past but instead as a way of actually facing up to the limits of development that burns up more resources than are actually available to humanity. This becomes even clearer when you look at the phases for implementing the Kyoto protocol and the agreements on the European Directive on Emissions Trading. It has ended up by becoming clearly necessary, even in the national field, to measure the effectiveness of policies and to reconcile economic growth with the limited nature of natural resources and the vital need to ensure sustainability.

In Rio, the Earth Summit adopted Agenda 21, which recommended that all of the signatory nations should reconcile the environment and development, both into their national policies and into their planning and implementation. It also recommended that countries should try and ensure that they had integrated economic and environmental accounting schemes. Research has subsequently been done along these lines by the UN, by the European Union, by the World Bank, by the OECD, and by many other international bodies across the planet. But experimental models have also been run on a more limited basis in provinces and communes and have proved that we do need to have new instruments developed, and that we need to develop instruments and indicators that can measure environmental variables which are often decisive for economic growth. But until recently they have not been counted and have not been included in the normal models for assessing policy effectiveness. This shortcoming is going to exacerbate the margin for error in policy assessment and will reduce the effectiveness of financial and economic policies as we have seen up until now. If we manage to overcome this situation, then that would make it possible for us to protect the environment more rationally and we would also be able to carry out more complete cost/benefit analysis of sustainable development.

It is in this context that the Ministry of Finance and Economics in Italy has decided on the encouragement of Minister Tommaso Padoa-Schioppa to set up a committee, which has been called upon to look at the main problems linked to introducing an environmental accounting system into the State, into the regions and then into local bodies. That committee will also be monitoring similar experiences that have been carried out at national level in the community and internationally and that committee has also been called upon to come up with draft legislation for introducing environmental accounting, and also to identify rationalisation measures in terms of public expenditure for correct implementation of environmental accounting. And of particular importance for the work and the studies being carried out by this committee in drawing up this draft decree law has been all of the experiments that have been carried out by local bodies and organisations in our country. These have been possible partly thanks to contributions from the European Union financing LIFE projects, which have made it possible for us to assess on the ground the concrete results of principles of the environmental accounting being applied.

This draft decree law was approved last week by the Council of Ministers and therefore will be transmitted to the European Parliament once the budget has been adopted, so that will be as of January of next year.

The content of the law is very simple, but it does cover the main elements for applying environmental accounting. First of all there is the general approach, the presentation and introduction of a system that can integrate the economic and financial planning and budgeting of the State and of local level authorities with the full environmental assessment of these measures. In that system we are also recognising the fact that citizens have a fundamental right to comprehensive environmental information and as such we are also going to be identifying objectives for political activity, taking into account the principles of sustainable development and ecological and social repercussions. For the first time, once this position has been adopted, the whole question of the environment will be put at the centre of the agenda. The Environment Ministry has been fully involved in drawing up this draft law and the environment will also henceforth be the responsibility of the Ministry of Finance and Economics. This is not just a bureaucratic change which will be important to public administration, but it will mean that environmental issues will be one of the economic and financial indicators taken into account in drawing up the State budget and in planning Italy’s economic policies.

Then, also in the decree law, we have a reference to statistical and mathematical indicators to be used to define the environmental accounting model. This second part of the law first needs to go through parliament. It is on the second part of the decree law that we will have to be concentrating, and we have to ensure that at European level we also have the cooperation of the various bodies that are working along the same lines.

Let me conclude by saying that what we need is to set up an analytical and mathematical and statistical system which can provide us with economic and financial indicators that can be used for environmental accounting. They must do this in such a way as to place not just on Italy but on all developed countries constraints regarding assessment of economic and financial policy, or infrastructure policy and social policy, which will make it possible for us to reduce our ecological debt, by giving us a proper assessment of the actual environmental footprint of what we are doing now and what we will be doing in our future policies. Thank you for your attention and I hope your conference is a success.

Patrick Viveret

Cour des Comptes, France

When, a few years ago, I came to carry out an assignment at the request of the French government not only on new indicators of wealth but also on a new approach to wealth, including the monetary question, we were directly concerned by the issues raised in the presentation by Kristalina, i.e. the relationship between, on the one hand, indicators, including the new indicators to be promoted, and, on the other hand, the choices made by society and the issues in public decision-making. Because we can have all the alternative indicators we want but if they are not connected to decision-making and deliberate democratic choices they will simply remain in the toolbox.

When I was carrying out this assignment, the President of the French Republic at the time, Jacques Chirac, said in Johannesburg: “The house is on fire but we are looking elsewhere”. And I had taken, as an example of the problem of indicators, the fact that not only is the house on fire and we are looking elsewhere but also we are deliberately adding fuel to the flames of the house that is on fire. A good many of the reasons why we have this counterproductive attitude lie in the fact that our systems for evaluating wealth – be it a question of company balance sheets or national accounts for nations – encourage us to adopt these counterproductive attitudes. Kristalina has just evoked the image of the Queen Mary. Well, in a way we are in the position of a sailor who has decided to change course, whether we call it lasting or sustainable development or even decline: today there is a major agreement developing within the international community about the fact that our type of growth is ecologically, socially, ‘*civilisationally*’ unsustainable, but at the same time as we are asserting the need to change course, we continue to have onboard instruments which are set to the old course, that of productivist growth. Consequently, as long as there is no link with the issues, and particularly public decision-making issues, all our efforts as regards new indicators, even if they are alternative indicators, are insufficient. And when we look at this link with issues, there are some useful experiences that I should like to mention.

One, which I discovered when I was carrying out this assignment on wealth, is the work that has been done in Canada, and particularly Quebec, by the Collective to fight poverty. They proposed to the government of Québec to organise what they called a ‘knowledge crossroads’ so that there could be an exchange of knowledge between the Ministry of Finances and this Collective for a poverty-free Québec, on the one hand, on economic and financial matters and, on the other hand, on the problems of exclusion and poverty. And on the occasion of this ‘knowledge crossroads”, to which the then Minister of Finances Bernard Landry had agreed, a debate began on national accounts, and on Gross Domestic Product, because members of the Collective to fight poverty, having heard presentations on the national accounting system, said one day to the Minister: “If we understand you correctly, in your Gross Domestic Product a lot of resources and wealth, which we ourselves carry, do not appear.” And at the same time they proposed an alternative indicator which, with their proverbial humour, they called the ‘Sweet Domestic Product’ (*doux*) as an alternative to the Gross Domestic Product (*brut*). And referring to another indicator, which they called ‘Hard domestic expenditure’ for the same reasons, they said: “In your accounting systems, destruction, social suffering and health problems are not mentioned but we experience them in our own lives.” They proposed to call this ‘Hard domestic expenditure’.

That is a good example of where a procedure of positive democratic conflict, through this ‘knowledge crossroads’ logic, creates at the same time a situation in which the debate on indicators is placed within a new cycle of democratic debates and public decisions.

In France, we have just learnt of a very interesting experiment, the ‘Grenelle de l’environnement’. This initiative, which was born in civil society, was proposed by a coalition of associations calling themselves the ‘Alliance pour la Planète’, and when the present President of the Republic agreed to take it up, for four months the different players in French society asked themselves about new types of growth, consumption, development, production and even life, and the necessary reorientation so that the debate on indicators could be included within the framework of a general reorientation.

And we can see today that one of the important consequences of this 'Grenelle' is that the scope of this work will be much wider than when this exploratory assignment was entrusted to me, not only on the new indicators of wealth but also on the link with public decision-making procedures. And this is a very important issue from the point of view of the democratic process itself, because most of the time all these indicators leave a situation of opacity in which the implicit choices of society do not appear. This was the case with the Gross Domestic Product and the national accounts. Before the statistical formalisation of the national accounts, you had choices by society and these choices by society were directly linked to the way in which societies, following the drama of the Second World War, tried to recreate a blueprint for life which was that of reconstruction, and in which industrial modernisation was seen as a choice by society. First of all, reconstruction and industrial modernisation were chosen and then they defined the costing methods and statistical instruments which were going to value reconstruction and industrial modernisation, to the detriment of other activities.

Today, we are at a similar crossroads. The human race finds that it is now obliged to take account of the ecological deficit – and Pierre Paolo talked forcibly about this in his presentation. However, the more we take the ecological deficit into account and thus the question of limits on non-renewable resources, which Kristalina has just been talking about, the more we need at the same time to have better indicators of well-being. The reason is that if you propose that people limit their consumption patterns and there is no prospect of greater well-being if they do, they are in the same situation as a drug addict who is offered a withdrawal cure but without any alternative positive prospects. And therefore the double indicator of real resources – the indicator which allows us to frame the question of limits in terms of natural capital – must at the same time be accompanied by indicators enabling us to work on greater well-being.

When I started my assignment on wealth, we worked a lot with the United Nations Development Programme. It had just produced a major report highlighting the fact that it would take only 10% of the amounts being invested in arms, drugs and advertising to implement the world programmes needed to eradicate hunger and provide access to drinking water and basic health care.

So it is absolutely essential when we ask ourselves about indicators also to pose the political and societal question about the choices made by society and by civilisation. And at the same time, and this will be my final word on the subject, we must not content ourselves with focusing our interest only on indicators; we must also take an interest in the graduation units behind these indicators. And in these graduation units we obviously have a link to money. Yet what we are living today is extreme immoderation in terms of the financial economy. The relationship between the realities of the real economy of goods and services actually traded and the immoderation of the financial economy which is one of irrational exuberance – to use the words of Alan Greenspan, former Chairman of the United States Federal Reserve Board, in his book "The Age of Turbulence'. The result is that of the 4,000 billion dollars spent everyday in the marketplace, less than 5% corresponds to real goods and services.

If we want to work on calling the present indicators into question, we must also accept that in years to come we shall have to work again on the question of monetary policies on a continental scale and even at world level.

And I dare hope that this European meeting in this Parliament, which is itself an outstanding indicator of the advances made in public awareness of these questions as regards the representation of wealth, will be another step forward. Perhaps next year or in two years' time we shall find ourselves here discussing the issue of new approaches to money.

Kristalina Georgieva

Director Strategy and Operations Sustainable Development, World Bank

Measuring the Wealth of Nations

Good morning everybody. I want to start with a story from the old days of the Soviet Union. Mr Brezhnev went to Europe and at the end of his visit he was interviewed and the journalist asked him: Mr Brezhnev, can you tell us in one word what is the state of the Soviet economy? And Brezhnev said: Good. And then the journalist said: Now if you were to add a little bit more, say in two words? Brezhnev said: Not good.

In a sense, what we are struggling with here is to make sure that we have a reflection of the state of our economies that is accurate, that tells us the foundation for our own well-being and that of our children.

I want to share with you research we have done in the World Bank led by my colleague Kirk Hamilton over a long period of time that in a sense gives us a measurement of the wealth of the nations. I will describe about how we measure that wealth, what we have learnt from this measurement, how we go about measuring changing wealth, and what the policy implications are.

The first question I would start with is: Why measure wealth? What does that give us? There are four good reasons to measure wealth - understood as the net present value of future consumption:

- First, it tells us the potential for future well-being. What is the foundation we have built for our children?

- Second, it shows the composition of wealth: how much of it is physical, man-made or natural, how much is human asset, how much is social assets or institutional assets. This composition of wealth is very important to understand the 'initial conditions' for development.

- Third, it is such a very useful model. If we look at everything that forms the wealth of nations, on the same footing, then we can think of ways to increase this wealth, including by transforming one type of asset into another, but with an eye on making sure that the whole becomes bigger than the sum of the parts.

- Fourth, and this is very important for us in the Bank, the change in real wealth, which we call 'genuine' or 'adjusted net' savings, is a measure of sustainable development.

Let me give you an example of how understanding this asset base and especially the natural capital part of it can alter our view of how well we are doing. This is an asset sustainability example from Mauritania.

In the first half of the 1980s, and this is a real example, the fish catch in Mauritania grew very substantially – basically more than quadrupled – from 20,000 to nearly 90,000 tonnes. Based on conventional indicators everything was great. GDP up, foreign exchange up, budget revenues up, in fact as Mr Brezhnev said: Good. Except that the fisheries collapsed. It only took seven years. Just seven years later, exports that were growing at 7.5% between 1980 and 1987 shrank to -2.3% in the next three years. The well-being of Mauritanians benefiting from the export of fish could not be sustained. If we were to measure fish stock as an asset as part of our overall equation, then we could have warned policy-makers that there was an impending collapse and that measures had to be taken to change the way Mauritania manages fish.

Last year, 2006, we published a book called '*Where is the Wealth of Nations?'.* The book does the following. It measures three types of wealth: (1) produced capital – buildings, machines and infrastructure, (2) natural capital – croplands, pasturelands, forests, minerals and energy; and (3) what we call "intangible capital", namely the human capital and the quality of the institutions that are so critical for the well-being of our societies. Do they provide accountability? Is the judiciary strong? Do we have a high or a low level of corruption? We did calculations for nearly 120 countries and came up with very interesting findings. Not only did we recognise that the wealth per capita is very different across the world. I am sure you will be asking: Which is the richest, the wealthiest country? In 2000 it was Switzerland: around 650,000 dollars per capita. And the lowest? Ethiopia, with only around 2,000 dollars per capita. And everything in between. This allows us to see different groups of countries (low income, middle income, high income) and how they compare. I chose to show you how they compare in terms of what these three types of capital provide to societies.

Well, three very interesting findings.

- First, built-in capital, the physical, produced capital, actually accounts for the same share, whether you are a rich country or a poor country, 16% in low income countries, 17% in high income countries.

- Second, in all countries intangible capital matters tremendously. It is the largest share of wealth: 59% in the poor countries, 80% in the rich countries.

- Three, and this is very important for how we think of development in the developing world, the share of natural capital is very high in poor countries: 26% of their capital is their natural base, the land, the forest, the fish stock, versus only 2% in the developed world, e.g. in Japan where it is almost 0%.

What this means is that developing countries have to pay very close attention to how they utilise this part of their capital base, and actually to remember that the most important part of it is actually land, not what is under the soil, but the soil itself.

Let me move on to a second point that results from this analysis: what do we know? What have we learnt about measuring the change in real wealth, the indicator we call 'genuine savings'? And just to make it more real, let's look at Bolivia in 2003. If we are to use the traditional concept of savings, we would have gross savings and net savings, and the difference between gross and net would be depreciation of fixed capital and we would basically stop right there. It would look as though Bolivia is not doing too well but it does have positive net savings. If we take genuine savings, then we see how much is invested in human capital – educational expenditure in this case – and that boosts the savings rate, but then we would subtract natural resource depletion, which in the case of Bolivia is quite substantial. That brings us down to -2%, and then we would add to this the negative impact of pollution damage, which in the case of Bolivia brings it to about -4%. So because of resource depletion and pollution, what we see here is that Bolivia is on a non-sustainable path.

As a Bulgarian national, I naturally looked at how my own country is doing. It is doing better than Bolivia, that is the good news, but still the true level of saving in my country is lower than our minister of finance thinks it is. He thinks it is 6%, it is actually around 4%, in fact just over 4%.

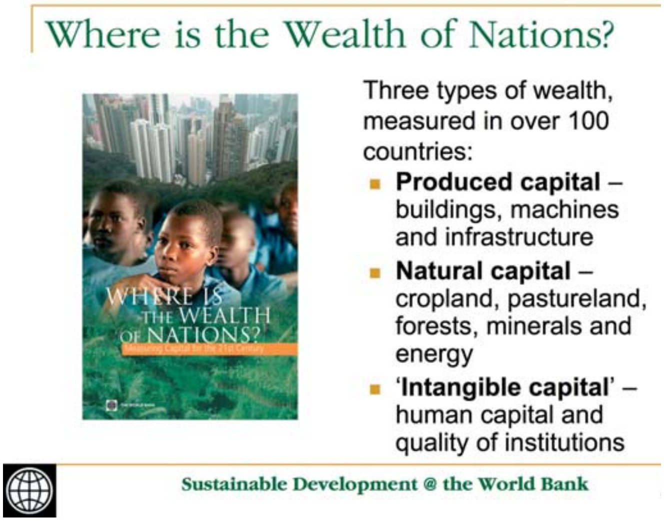
If we follow up over a long period of time what has happened in Sub-Saharan Africa, the poorest of the continents, what we have to conclude, sadly, is that if you apply this measure of true wealth, Sub-Saharan Africa actually has created wealth that is about zero over 30 years, because of the depletion of natural capital and not using it to invest in its institutions and its people.

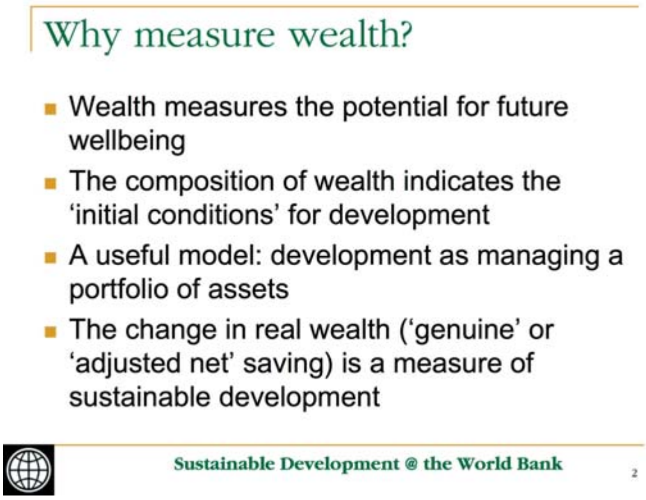
Which brings me to my last point. What is it that we do with this analysis? We in the World Bank have been tracking wealth for quite some time; since 1999 we have been publishing 'adjusted net saving' as part of our development indicators. Unfortunately each year we observe that 20-30 countries have negative wealth accumulation. These are primarily the poorer countries.

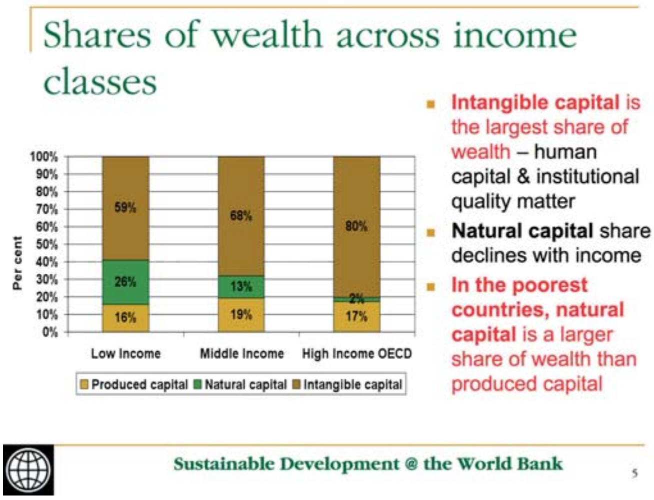
Every year we publish what we call the "Green Data Book". This summarises environmental natural resource impact for countries, and our country teams are using it more and more as they think of operational programmes.

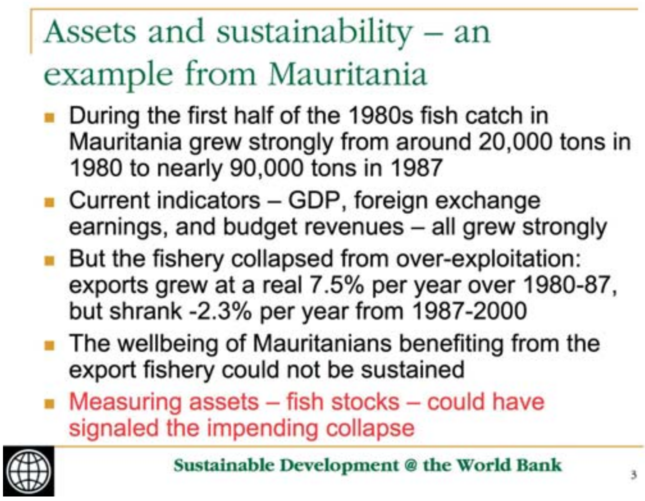
There are other countries that are moving toward wealth indicators, like Canada, with its 'capital approach' to sustainable development; Norway has its 'petroleum-adjusted net savings'; Botswana has a 'sustainable budget index': we cannot spend more of our diamond wealth than we can do sustainably; and it's too bad the minister of Ghana was not here – he would have told you how they think of natural resource management.

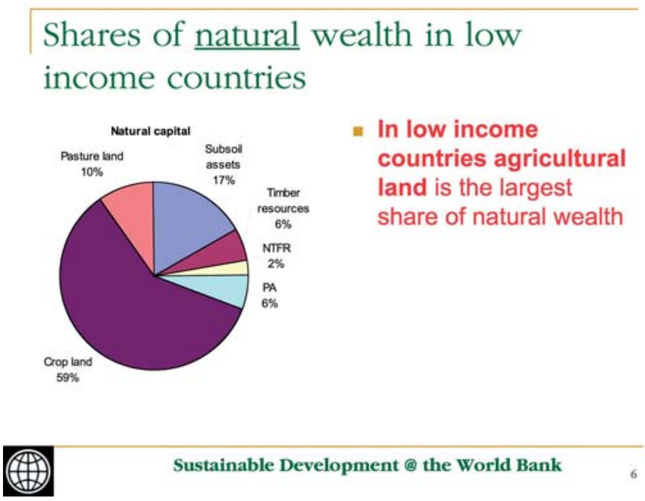
Let me conclude: what are the main lessons we can draw for development? First, that because of the high share of natural capital, strengthening natural resource management is actually much more important for developing countries than it is for the rich world. They have to pay much more attention to soil degradation because of the high share of land in their natural capital. There has to be a very strong focus on reducing incentives to overexploit resources, especially living resources, the gift of nature that countries can rely on hypothetically forever. When we do that, we need to reinvest resources in other assets, so we expand the non-tangible, the intangible, the human dimension of development. It is precisely that investment in human capital – and in stronger institutions – that has the highest pay off. Roads are a good thing, but it is the people and the institutions they rely on that matter most.



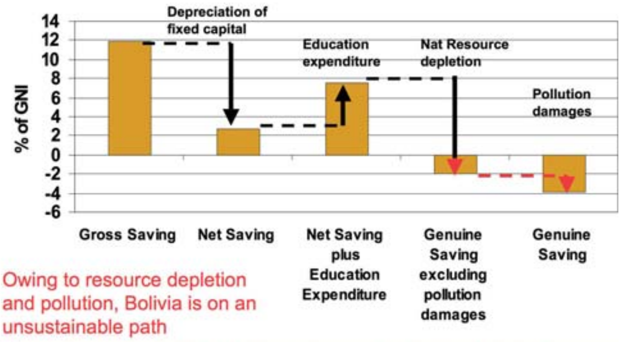








Genuine saving (change in real wealth) in Bolivia, 2003



Owing to resource depletion and pollution, Bolivia is on an unsustainable path

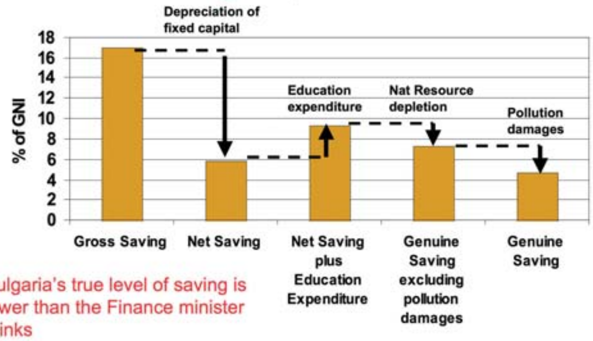
Sustainable Development @ the World Bank

Tracking wealth

- The World Bank has been publishing 'adjusted net saving' since 1999
- Each year 20-30 countries have negative wealth accumulation as reported in the *World Development Indicators*
- Estimates in *Where is the Wealth of Nations?* show that when resource depletion and population growth are both taken into account, the majority of low income countries face declines in wealth per capita

Sustainable Development @ the World Bank

Genuine saving (change in real wealth) in Bulgaria, 2005



Bulgaria's true level of saving is lower than the Finance minister thinks

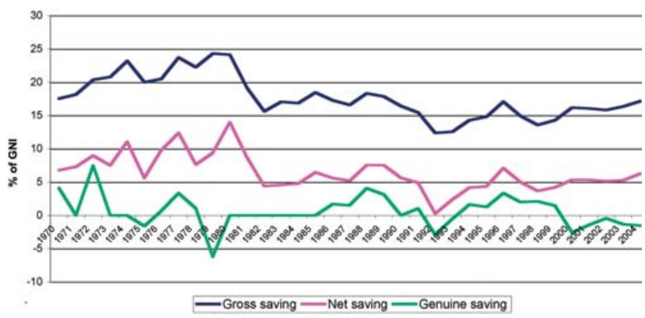
Sustainable Development @ the World Bank 8

Who uses these indicators?

- Canada – the 'capital approach' to SD measurement
- Norway – 'petroleum-adjusted net saving'
- Botswana – the 'sustainable budget index' tracks whether resource wealth is being consumed
- Ghana – adjusted net saving as a framework for judging natural resource management

Sustainable Development @ the World Bank

Over 3 decades, net wealth creation in Sub-Saharan Africa has been effectively zero



Sustainable Development @ the World Bank 9

Main lessons for development

- Strengthen natural resource management in low income countries
- Pay particular attention to soil degradation
- Reduce incentives to over-exploit resources, especially living resources
- Re-invest resource revenues in other assets
- Invest in human capital and stronger institutions

Sustainable Development @ the World Bank

- **Tony Long**

  Director European Policy Office, WWF, Chairman of session 3

During the session that we have now we are going to begin to answer the question which is the title of the conference: How do we measure progress, how do we measure true wealth and how do we measure the well-being of nations?

I have three distinguished panellists to help me with these questions.

By way of introduction let me just say that he has got a distinguished political career in Italy, he has been in the Green Party in Italian politics since 1985. He has served in very distinguished positions as Secretary to the Special Commission on the Prevention and Repression of Corruption. He is also a Vice-President of the Commission on Justice and a member of the Council of Elections and he now holds the position of State Secretary for Economics and Finance in the Italian government. It's with pleasure that I introduce Pier Paolo Cento.

For speech of Pier Paolo Cento, see page 84.
For speech of Kristalina Georgieva, see page 88.

- **Kristalina Georgieva**

  World Bank

Actually, this is a great question! I would like to make two points.

Firstly, it has taken more than 10 years for this research to bring results in terms of impact on operational work. The first lesson I would draw is that, in terms of changing mindsets and how we think of our economies and societies in development, one has to persevere. We have to be very persistent in doing this day in day out for a long period of time for the results to become acceptable.

Secondly, the way it gets operationalised in the World Bank is by these data becoming part of our country operational programmes. What this means is that more and more – and I would not say in every country but more and more – when we think of what is the best we can do together with a particular country in development, we now take into account the assessment of wealth, the different assets that we have talked about here, but more importantly the genuine savings. Then we look at the different dimensions of environmental assets. We look at pollution and then we say: what are the specific policy implications? Just one example: China: pollution as share of GDP. We struggled a lot with the Chinese authorities, we came up with a number, and the number is around 6% of GDP lost due to environmental degradation. Then from there, once policy-makers accept that this is a serious problem, good things can, and do, happen.

The notion is: break it down, to make it operationally relevant, rather than have a theoretical concept. Make it relevant for individual countries by taking individual issues that countries are struggling with and then integrate it into the programmes.

- **Tony Long**

  Chairman

Before passing on to the next speaker, I wonder whether I could just ask for a point of clarification from you. I can see the analysis, and I can see some of the conclusions you are drawing from the analysis but what I can't see quite is how this becomes 'operationalised' in the Bank.

- **Anders Wijkman**

  Member of the European Parliament

Thank you very much, Kristalina, as always a very clear message. I commend you for this. But I do not think the theoretical aspect is so unimportant. I would ask you how does the Bank translate this into its overall message, when you have World Bank conferences, etc? Because it is all very well that you factor it in at the individual country level, but if the Bank as a bank could draw the right conclusions, it could start bombarding governments and say: Look guys, you have to change this notion of GDP, you have to factor in other indicators. But we have not heard that from Mr Wolfensohn, we have not heard it from his successor. Maybe we shall hear it now from Mr Zoellick, I do not know.

- **Kristalina Georgieva**
  World Bank

We certainly hope that you will hear it from Mr Zoellick, but the point I wanted to make is that for research to become operational takes time. It takes time to be sure that what we are coming up with as policy recommendations is accurate, that it is effective and that it has implications. So what we usually do is we start with a couple of pilots, we work in a number of countries and then, if this work produces results and we get the governments on the other side to be convinced it is good for them – as it happened in the case of Ghana, or as we see happening in China, or as we see happening in India – then it translates into a broader programme and it becomes mainstreamed in the Bank. Recently, the World Bank made a very important decision. We merged our Environmentally and Socially Sustainable Development Vice Presidency (which used to be: Environment, Social Development and Agriculture), with our Infrastructure Vice Presidency, into one big sustainable development network. Part of the reason we did that was the recognition that we can no longer fight poverty and support sustainable growth unless we pay upfront attention to the sustainability of our engagement. Let me admit here in front of everybody, that the World Bank is kind of a big institution, a little bit like the European Commission. It is like the Queen Mary. The captain turns the wheel, and the ship eventually follows. You do not see it right away. Me, being on the ship, I can say: we are moving in the direction towards sustainability, because fundamentally we cannot succeed in our mission unless we do so.

- **Tony Long**
  Chairman

Still before I pass on to the next speaker, there is another comment.

- **Bedrich Moldan**
  Charles University

Thanks, Tony. I was extremely delighted by this report from Kristalina. I have been trying to follow the work of the World Bank on this issue for many years, and in fact this publication is a revolutionary one. It is definitely the result of very long research. I think it is an extremely important approach. I was mostly struck by the example of Morocco where the stock indicator could be taken as an early warning signal. This is extremely important in our struggle for sustainability, which is about long-term vision, and not just short-term gains. But I would like to stress that again the devil is in the detail. I think that more work should be done especially on the intangible part of the capital, because the measures are still not well developed. I also think that natural capital is the struggle between the notion of weak and strong sustainability and the substitutability of capital. I think these are very important issues which should be worked out. I hope that they can be worked out, and then this indicator of wealth of nations really is a promise for all of us.

- **Kristalina Georgieva**
  World Bank

A quick reaction. I completely agree that we need to do more work. Actually we have been doing quite a lot of work on issues like accountability, institutions, and corruption and how they affect development prospects, as well as on the environmental side. This work certainly has to continue and this is a kind of a plea to potential partners here in this room who are doing similar work. Obviously, we need to bind our efforts together because these are not easy assessments. Of course it takes very little to seed doubt, but you can quite accurately measure, especially the intangible element, so the more we can verify collectively, the better off we will be.

- **Tony Long**
  Chairman

There are some people with their hands up but I am going to pass on, because they will get a chance to ask some more questions. Now I am going to ask Patrick Viveret to address us.

Patrick is a member of the Cour des Comptes ("Court of Auditors") in France. He is a distinguished author and commentator, especially on the subject we have before us, on alternative measures of wealth. He is currently part of a working party with the UN Development Programme, reporting to the French government on alternative measures of wealth. I am pleased to introduce Patrick Viveret.

For speech of Patrick Viveret, see page 86.

• N.N.

Eight years ago in Berlin there was a Congress. The title was “Beyond Growth”. Herman Daly at that Congress put together his experience at the World Bank telling the story of trying to publish in a World Bank document a diagram with the economy as a subsystem of nature. He said it was impossible for him at the World Bank to do that. Now we learn that in Japan natural capital should have zero value. I would like to ask Mr Viveret what he thinks about this appreciation of natural capital in Japan?

• Enrico Giovannini

OECD

Enrico Giovannini, Chief Statistician of the OECD. Two weeks ago the International Association of Auditor Generals had its biennial meeting in Mexico City, and one of the two topics discussed by these Auditor Generals from the whole world was key indicators. This was I think a very important signal that this community of people are looking into this as one of the key topics to try to make whole countries accountable, not just governments but whole countries. And at the end of the conference there was a discussion about the possibility that INTOSAI could create a working group to work with other international organisations on this issue of key indicators.

But one of the important points that were made was the problem of the independence of Auditor Generals, because they want to keep their independence. They do not want to be seen as a supporting a particular measure, or general policies or specific policies.

So my question is: How do you see this tension between the need to engage the Auditor Generals in this effort and to allow them the independence to be able to assess governments, using indicators but also in an independent way? Thanks.

• Nick Marks

New Economics Foundation

Nick Marks, New Economics Foundation, and author of the ‘Happy Planet Index’ actually, but I’m not going to talk about that. As a statistician who has worked on indicators for fifteen years, we always have an issue around stocks and flows. How do we combine these things? And obviously the World Bank has a stock approach, but you have some assumptions in there:

- One is that the future flow of well-being is to do with assets and wealth, and well-being research would challenge that assumption. Indeed people experience diminishing returns from extra levels of wealth.

- The second thing is that we have a slight problem with another stock, which is the stock of carbon dioxide in the atmosphere. Future costs of climate change are not going to flow from marginal additions to the stock, they are going to flow from the quantity of that stock. And so your accounting process must take account of the net current liability for future costs, that there must be some set aside: a fund that basically says that we need to be saving now to pay for the future costs of climate change, and I would like to see that added into it.

• Patrick Viveret

Cour des Comptes, France

Firstly, particularly in Kristalina’s presentation it became clear that we don’t just have the example of Japan; in economic capital in the classical sense of the term, natural capital and intangible capital are decisive. What does that show us? Well it shows us that what one could call the environmental fundamentals and anthropological and human fundamentals are the decisive factors of economic fundamentals. If the planet becomes unliveable, if there are no more human beings left, obviously it won’t be possible to have an economy. And if you look at the OECD’s work of a few years ago that was clear. So the share of natural capital and human capital represent 86% of total capital. And that means that the institutions which put forward very few alternatives over the last fifteen years have recognised that environment and human stakes are absolutely decisive.

The second point is that natural and human capital for the most part are based on gifts without a counterpart. The question of the economics of gifts is a central issue because it is clearly the model for nature and humans that is decisive. If you had general accounting that actually accounted for all natural and human resources, if you had the nature of goods and services as well as the nature of trade, and their characteristics, it would become clear that gifts are without a doubt the most common. So that's a very important point because if you look at the way in which we can advance – and that's why I linked this into monetary issues and what we said, for example, on problems linked to coal – we need in our indicators and in our prices, and in monetary support, to ensure that the reality of the relationship between natural and human economies is taken into account. Now when you have institutions that are independent, such as the Court of Auditors, can they then take on board these issues and turn their independence into an asset rather than a constraint? Recently for the first time, the Court of Auditors had to certify the accounts of the French State as part of a new organisation of the budget and finances of the country. And the question that was asked was, considering that the State through the law on the new economic regulation calls on companies to draw up societal environment budgets, why doesn't the State apply that to itself? And therefore the Court of Auditors, when it certifies the State's finances, should also certify that.

Then the second question was the question of image. When you have accountancy standards that were thought up as a priority by asset holders, in public finances your asset holders are the citizens. So you have to have a faithful image. But faithful of what, faithful to what? If you look at this from an asset holder's viewpoint, you're generally talking about faithful to the economic performance and the assets of the company, but if you transform that and look at it in terms of citizens of the State, then you need a different faithfulness; faithfulness to the quality of health, education, and preserving natural heritage, and therefore the independence of the Court of Auditors is very much an asset in moving down that path. Because there are so many lobbies, there are so many people with vested interests that they want to preserve, that want to preserve the existing status quo. If you have accounting organisations, audit and assessment organisations that are independent, then that independence can actually help, because these are organisations that are supposed to work for citizens and democracy. In France, in the Declaration of Human Rights and Citizens' Rights, there's a very important statement that says that all citizens have the right directly or through their representatives to verify the necessity of public contributions and to assess how that money has been used. So that is a right of citizens, and therefore independence is actually a guarantee of that service of citizenship.

• Kristalina Georgieva
World Bank

Just a quick follow up on the question on Japan. My apologies if I suggested that Japan has zero natural wealth. Of course this is not true. My point was that in relative terms, relative to many poor countries, the share of natural assets in Japan is much smaller. I have the exact number: \$1,500 per capita is how much wealth we have in Japan from nature. That multiplied by about 120 million Japanese gives us about \$180 billion. But because the institutional and social capital of Japan is so much bigger, I mean, the total wealth of the Japanese is \$500,000 per capita. Of this 500,000, 1,500 is the value of the natural capital. So my apologies if I led you to think that we are back in the Stone Age when we don't value nature.

A question was put on stocks versus flows. Well we do try to think dynamically, we try to understand what happens over time with wealth and what the substitution among assets is. But point well taken, we need to do much more to actually come up with assessment as close to reality and as useful to policy-makers as possible. And of course work will continue.

CO_2 emissions and what we should do – this is probably a subject for a separate conference, but let me make four points:

- First, we do a lot of work on understanding carbon intensity, where the emissions come from individual countries with sectors and uses in developing countries. We are running at the moment six 'low carbon studies' for the biggest countries (India, China, Mexico, South Africa, Indonesia and Brazil), and we would like to expand this to other countries to understand what can be done to shift from higher to low carbon intensity and what are the policy and investment decisions that need to underpin this shift;

- Secondly, we are very concerned that still most of the attention on carbon emissions reduction is focused on energy and in particular on the power sector, whereas in the majority of the developing countries the biggest potential for CO_2 emissions reduction is in avoiding deforestation and land use change. Say in Indonesia 80% of emissions come from deforestation. So can we generating more attention to what actually matters may not be globally so significant, but it will definitely be very significant for countries, and is also good for mitigation, good for climate resilience, and good for development, for poverty reduction and development; So how can we get more attention in this direction?

- Third, we are very keen to gear the World Bank toward getting carbon intensity to be just part of the decision-making process, and not long ago we made a commitment to measure the carbon intensity of our own lending activities starting with energy, transport and forest. Obviously that still doesn't answer the question, how would countries cope, those that have contributed the least and are most impacted? Basically Sub-Sahara Africa is least at fault for climate change but most impacted. And there what we do in the World Bank is raise attention to their vulnerability and to the need for adaptation. We then call on our donors, those that support our soft lending arm, and we say, just to sustain the benefits we have promised to developing countries over the next three years, we have to add something like 600 million to 2 billion dollars to make sure that the risk imposed by climate change is not falling on the shoulders of people and communities in the developing world.

• Rita Trattnigg

Sustainable Development Coordinator, Austria

I would like to turn the spotlight on to a relatively new notion and that's the notion of social capital. This describes the social ties between human beings or citizens within a nation or within a society, and that would also be a very important factor for the well-being of a nation. I would like to ask the World Bank especially ... I've seen human capital but I've not seen social capital on your slides, so I would like to ask you if this will be of importance in your future work?

• Bruno Contigiani

L'Arte del Vivere con Lentezza

It's a cultural association, we organise global days of slow-down around the world. So we would like to introduce something like a GDWP instead of GDP, that W could mean "well-being." But well-being does not mean the same in Europe, the United States, China, Russia, India, Bangladesh or Egypt. Poor people or rich people are different in the world, and many people in Western countries acknowledge that we can't continue to grow in the same way we did in the last fifty years. Young people decide to choose a job that is more interesting, low paid, and shifting down or slowing down becomes interesting for manager who are too stressed. But it's different if we think of countries like India or poor countries because well-being could mean a house, a job, food, family or a car. So what we see now is that the common value we have in the world is time, how people spend their time. So we could think of an indicator to understand how people spend their time, because it is the common value we have in the world. But is different to think of time in Italy or in Russia. And we try to include among the other indicators an indicator that shows how people spend their time. Thank you.

• Walter Radermacher

Federal Statistical Office, Germany

I'm Walter Radermacher, UN Committee on Environmental Economic Accounting. I've a question to Kristalina. With respect to her approach to the wealth of nations, it's very important additional information you presented but it certainly has also some limitations as we have heard. There is the problem of valuation; we have the problem of applicability to global environmental goods like climate, as you mentioned already and the problem of degradation in the future which is not accountable in the period today.

So my question to you is whether and how far the World Bank is willing to cooperate with a system of statistical offices, the UN Statistical Commission, which follows more or less a multidimensional approach, green accounting so to say, and whether this could be an option for you to join that boat?

• Anders Wijkman

Member of the European Parliament

I met with a manager of one of the biggest ethical investment funds in Scandinavia a couple of months ago and he told me that when recruiting young economists he had to re-teach them because they didn't have the qualities, the competences needed to do the kind of screening of various talks in companies that was required. Now I should perhaps add that Itrained as an economist many years ago.

My question to you Kristalina is: based on your experience and based on the importance of distinguishing between financial and natural capital etc, etc, how do you cope in the World Bank? You recruit a lot of young economists all the time and most of them don't learn anything about this. So could you please tell us what kind of action the World Bank is taking to reform education for economists?

• Isabelle Cassiers

Professor at the Louvain-la-Neuve University

I would like to come back to the example that Kristalina gave about the Mauritanian fisheries. I believe that thanks to what could be called their social capital, Mauritanian knew from generation to generation how not to exhaust their fish stocks and that this example shows the pressure rapid growth exerts on economic activity when it is decoupled from social community life.

In the same light I would like to know if the World Bank examined the link that there could be between the negative or zero genuine saving of Africa and the pressure form multinational companies to abuse African natural resources because they are very much rewarded for doing so.

I would like to thank Professor Viveret for pointing out the schizophrenic signals from the present situation. He was perhaps the only speaker in this conference to point out the problem of the power of the financial sector, the increasing power of money, that is in great contrast with the subject of the conference. I believe that if you want to go further on the question of the indicators, we have to address the problem of a global world increasingly led by a financial community who's private interests have nothing to do with the progress of societies.

So my question would be to Patrick Viveret: What should be the next step for this kind of conference to address this question of a schizophrenic world and to limit the power of money so as to enhance the power of people?

• Jean-Luc Roux

Planète Vie

Following on from what Isabelle Cassiers and Patrick Viveret have said, I'd like to put a question directly to Mr Viveret. You mentioned aspects of change that are necessary to go from one economic paradigm to a new one. How to do that is probably a long complicated issue.

My specific question to you is as follows: Given the power of financial markets today and the imbalance between what they generate and the part of that that is goods and services - and it's something that we see reflected across the globe - how would you see that changing? Now what about the question of time? Time is rare, it's scarce, we have no way of measuring time and how we useit.

• Kristalina Georgieva

World Bank

I'll start with the question on social capital. Actually we do try to include - in the intangible, social capital and sometime by the summer of 2008 our group 'Working on social development issues' will be coming up with an index to actually try to measure - more precisely social capital. Just a quick footnote. As a young professor in the early seventies I was still in Bulgaria and for the first time in my life, we had a delegation from the West come to my university. They happened to be from Japan. We treated them with traditional Bulgarian hospitality which means that by eleven o'clock everybody was drunk and at that time in a moment of *in vino veritas*, one of the Japanese professors turned to us and said, "You're very lucky, you don't know how poor you are". And that actually really kind of shocked us because we were highly educated, talking about social capital, human capital but we also had the strength of social relations with our families and our friends which to this very day makes me so violently opposed to the statement that we were really poor. So it is important to understand the whole fabric of society and to try to go beyond and above ... and that's why we have this meeting and we will have many more about what we measure in the traditional economic sense.

I was asked whether we would be interested to venture into green accounting. I think some of my colleagues, to my understanding, have been working with your team. Here is our limitation; it is that we need to come up with a measurement that is actually applicable, we can bring it into our country dialogues – which is to say that there are some levels where we leave the good so as not to be an enemy of the perfect. And obviously this commitment will continue and hopefully the limitations within which we operate will diminish over time as we have seen them diminish in the last ten years. But I just want, for the benefit of everybody, to remind you that the World Bank is owned by governments. We are a cooperative of a hundred and eighty-five governments and they in a sense give direction to what we should be doing. Sometimes we jump a little further, or move a little faster than the instructions we get. But collectively we need to take a political view to make decisions around changes that are absolutely necessary for us to actually perform our functions to leave the world a better place for our kids. Hopefully this is still possible.

And I was asked what we are doing to change mindsets, especially in the profession of economics. Today is my day quotations from the past. Lenin happens to be the person who said that the most difficult revolution is the one that happens in peoples' heads and what we're talking about here is a mindset revolution. What we launched in the World Bank very recently is a programme on leadership for sustainable development. We actually do want to bring to challenge conventional wisdom and a little bit more '*nuance*' into the way we think of societies. We will make this programme to be one that links to business schools and we do hope that over time in the next two or three years, it will produce not only more comprehensive thinking for us in the World Bank, but it would be helpful in how business schools or the profession of economics operate. But obviously we won't do this alone, we will do it hopefully collectively with many of you in this room.

- **Patrick Viveret**

  Cour des Comptes, France

Now the question of well-being is of course of central importance in this debate, but all too often in discussing well-being, 'being' seems to be somewhat forgotten. We need to move from 'having' and consumption to 'being'. For the reasons outlined by Ghandi prior to his demise – and which are clearly highlighted by the UN figures I quoted – he said: "Earth provides enough for every man's need but not for every man's greed." So there's enough to go round he said.

According to UN figures, two hundred and twenty five individuals have the same income as two and a half billion human beings. You are seeing untrammelled covetousness and greed which is going to lead to poverty and shortages elsewhere. But we can tackle the fundamental problems of human beings: food, housing, water, basic healthcare. We can afford that, so what we're paying for is the cost of ill-being: advertising, drugs and armaments generate ten times more than you need to sort out these basic problems of hunger. We are paying that cost, the cost of 'anti-well-being'. So it's very important to develop this notion and it's got to be at the heart of the new economic paradigm that has been talked about today.

Max Weber said something very telling: We've gone from an economy of salvation to salvation via the economy. So what we're experiencing now is the end of this salvation through the economy because this is something that is coming back to haunt humanity. Not just because of environmental issues but because mankind is facing such crucial challenges that we are in danger. We might not continue to exist, so we're moving onto a new cycle which has implications for civilisation as a whole; it's not just about economics. And here the two fundamental issues are:

- What are we going to do with our planet?
- How are we going to do that?

What are we going to do to preserve our species? And here the question of accounting time is of critical importance. It ties in with the last problem I raised and that's the question of currencies.

In all the experience of so-called complementary currencies, and there have been about five thousand odd of those throughout the world, it's clear that lifetime, life cycle is an accounting unit. And that's no coincidence because the time you spend on the planet is a fundamental resource.

In an experiment that is being carried out in France where you have got this complementary currency, we find precisely these fundamental characteristics. There's an extremely ambitious project to create a global currency. It is led by Bernard Lietaer, former Director at the Central Bank of Belgium, and he identified fundamental needs at a planetary level. We've seen the beginnings of a financial crisis, that will probably get worse, so it will be all the more important to have a global currency that is based on ecological fundamentals, non-renewable resources, carbon as well as human and anthropological fundamentals and there, the accounting unit is the lifetime. How long you live is the key there.

However the problems we are experiencing in our societies is that they are societies that are at war. Ecological problems are the result of a kind of war relationship with the environment. Equally economic problems are the result of seeing other individuals as permanent rivals and competitors. The lack of an inner life is due to a warlike relationship with oneself. So the key to development is re-establishing a 'peaceful' relationship with nature, with other individuals, and with ourselves and the indicators we need are qualitative as well as quantitative because it is the quality of our being, of our relationship to life, to the universe and everything that requires such an approach.