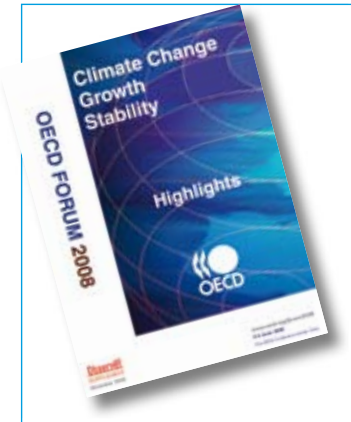


Table of Contents

Concluding comments on the economics of climate change

BY **DORIS LEUTHARD**, MINISTER OF ECONOMIC AFFAIRS, SWITZERLAND

Political will and strong partnerships are vital for action

The OECD Forum is a "multi-stakeholder summit" which brings together business and labour leaders, civil society personalities, government ministers and leaders of international organisations to discuss the key issues on the agenda of the annual OECD ministerial meeting.

Each year, a member of the ministerial bureau presents to the ministerial meeting the main messages of the Forum. Set out below are the concluding comments from Doris Leuthard, Vice-Chair of the OECD Ministerial Council Meeting, on the OECD Forum's discussions on the economics of climate change.

"It is a great pleasure to be able to report to the OECD Ministerial Council Meeting on the climate change discussions at OECD Forum 2008.

Just before the Forum, the OECD conducted an on-line survey on what, among the Forum issues, is the most important challenge facing the world today. Some 70% of respondents indicated that combating climate change is the most important. So, over this week at the OECD, we are right to be concentrating on climate change.

The Forum is a key event in terms of bringing together civil society personalities, business and labour leaders, government ministers and leaders of international organisations. What struck me was the determination of most people from these different groups to work together to tackle climate change. But while there was optimism about technology and even on the economics, there was a sense of pessimism about policymaking. Indeed, much of the blame for lack of progress was being laid at the feet of politicians. I had a clear sense of frustration on the side of civil society regarding the apparent difficulty that world leaders have in reaching agreements to tackle climate change more seriously. It is clear that we must mobilise political will and make international co-operation work better to tackle climate change – that includes co-operation among OECD and non-OECD countries and co-ordination among different international negotiation fora (UNFCCC, WTO and others). Building the enabling policy frameworks, for research and development, on market-based instruments to put a price on carbon, on encouraging new standards: this is where we must also focus our energy.

Yesterday, I had the pleasure of chairing a session on the issue of mobilising political will to tackle climate change. All the speakers – H.S.H. Prince Albert II of Monaco; Angel Gurría, Secretary-General, OECD; Yvo de Boer, Executive Secretary, UNFCCC, and Phil Goff, Minister of Trade, New Zealand – agreed that political leadership and mobilising political will were the vital ingredient, "the DNA of international policymaking", as Secretary-General Gurría put it. Climate change is not someone else's problem, it

Doris Leuthard

is our problem. The session on mobilising political will followed hot on the heels of another session emphasising the importance of partnerships, among government, the different players, and countries. There is much more that politicians could do to harness this widespread public eagerness to tackle climate change and to make those partnerships truly effective.

There is no single "silver bullet" that will solve climate change. Innovation, economic instruments, regulations, encouraging new low-carbon habits: they all count. But we clearly need strong inter-governmental agreements to reduce carbon emissions. All eyes in this regard are very much on Copenhagen 2009. We can encourage many simple steps to improve the efficiency of energy use, too. And we need more education, not just of children, but adults.

Innovation is humanity's great asset and hope, for as one Forum speaker said, innovation may even exceed our expectations! But we need to step up our policies to spur innovation and encourage the technological breakthroughs needed to move forward. The transition to a low-carbon economy also provides great opportunities for economic growth. Green technologies, from renewable energy to carbon capture, offer the possibility of new green jobs and industries for all. Here governments must do more to create an environment which is conducive to innovation and reform. That includes reversing our declining spending on R&D into renewable energy. Nuclear power can be part of the solution to climate change, but only part, and despite renewed interest in the technology, the Forum reminded me that public concerns remain about externalities such as waste disposal, accidents and proliferation.

I have just now participated in a session on climate change and finance. Many good points were made, but it seems clear that financing, though never easy, particularly in today's difficult climate, should not be a barrier on the road to building a low-carbon society. Indeed, it makes increasingly good business sense to undertake climate-friendly business practices. Global companies are investing in cleaning up their image and their act. Financial instruments exist to help them, and a number of financial indices, such as the FTSE4Good or NASDAQ Clean Edge US Index, now track the environmental and social performances of publicly traded companies. That is the market in action. Policy makers must also take the baton and lead the way.

I would like to conclude by saying something we already know but which was very much in evidence yesterday, that the Forum and the Ministerial Council Meeting really do confirm the OECD's key role, not just in gathering data and helping us make sense of it all, but in bringing diverse players together on an action-oriented, policy-shaping, basis. At the Forum, people showed they are ready to take initiatives, but were adamant that the really major differences rely on leadership to make things happen. At the MCM, we meet in camera but our decisions will be in public view. We cannot afford to let these people's expectations down. We must show that on climate change, we too mean business." ■

Opening plenary
Climate change, growth, stability

- *MODERATOR:* **DAVID EADES**, PRESENTER, BBC WORLD NEWS
- **AGUSTÍN CARSTENS**, SECRETARY OF FINANCE AND PUBLIC CREDIT, MEXICO
- **ANGEL GURRÍA**, SECRETARY-GENERAL, OECD

(Left to right): **David Eades, Agustín Carstens and Angel Gurría**

In 2008, the OECD opened a new Conference Centre at its Paris headquarters, which enabled the Forum to be held at the OECD for the very first time.

David Eades opened this session of Forum 2008 on a note that mixed concern with tentative optimism. Concern about stability and the economic and social consequences of rising inflation and food shortages – "lack of stability is the order of the day"; concern about growth – "What growth?" asked David Eades ironically; and concern about our ability to deal with our "collective carbon footprint". But he also welcomed the opportunities created by the OECD Forum to get decision-makers together and, by interacting with the Forum participants, to find solutions.

Set out below are the remarks made by the two key speakers in this opening plenary.

Remarks by Agustín Carstens, Secretary of Finance and Public Credit, Mexico

"This is a very important and timely opportunity for gathering government officials, business and labour leaders, media and other representatives from a broad range of sectors to discuss current world issues, exchange experiences and join efforts to find solutions to shared challenges present today.

The Forum provides an excellent opportunity for the OECD and ministers to hear and reflect on the ideas and opinions that a variety of actors bring to bear on the core issues that will be discussed at the annual Ministerial Council Meeting. Your views help us to identify and shape possible solutions, and to take into account the concerns of business and labour leaders and civil society to tailor public policies better.

It is also a privilege to be able to welcome you at the newly inaugurated OECD Conference Centre. This building symbolises in many ways the renovation that the Organisation seeks by transforming itself into the *de facto* hub for globalisation. Its facilities will allow the OECD to bring together, under a single roof, a broad range of events and policy discussions, fostering greater networking opportunities among delegates and closer co-operation between the different committees and working groups.

As the Organisation prepares to expand again, offering Chile, Estonia, Israel, Slovenia and Russia membership, and puts into place an enhanced engagement programme with the largest emerging economies (Brazil, India, Indonesia, China and South Africa), I have no doubts that this modern meeting space will prove invaluable in carrying out the OECD outreach activities.

The OECD must preserve its core focus on promoting growth, co-operation, and a better understanding of domestic and international policies, while at the same time providing an effective response to emerging priorities. Just as this new building is seamlessly linked to the beautiful Château above this room – seat of the OECD since its foundation – the Organisation must continue working in favour of open trade and stronger economic growth while helping countries address global challenges.

Our discussions take place amidst intricate economic conditions. The global economy has entered into a pace of slower economic growth. This year, global growth is projected to decelerate in the face of lower consumption growth in the US, a result of the bursting of the mortgage bubble and higher commodity prices, as well as the losses observed in financial institutions

in industrial countries which are leading to a credit crunch. In addition, there is significant uncertainty about the prospects for next year given that the adjustment of the balances of American households and international financial institutions could take longer than expected.

Moreover, soaring commodity prices have placed central banks in both industrial and emerging markets in a situation where their ability to respond to a slowing global economy is curtailed. At the same time, while producer countries have benefited from higher prices, many households in the poorest countries might experience sharp deteriorations in their standards of living, leading to serious humanitarian crises.

Middle income countries have been resilient thus far. However, systemic concerns remain and policy challenges arise to mitigate the risk and to be prepared should global financial conditions deteriorate further, and commodity prices continue to rise, with the need to mitigate the effect of higher food prices on the poorest segments of the population.

In previous episodes of global turmoil, the Mexican economy was ill-equipped to sort it out without much damage. When the US economy sneezed, Mexico used to catch a cold. Today, the Mexican economy has much stronger foundations to confront a less favourable international environment.

Several sources are accountable for the strengths of the Mexican economy:

- Major reforms were approved in 2007: the public sector worker's pension system reform, the fiscal reform, and a number of reforms to the financial system, among others. All of them are meant to increase the potential growth rate of the economy.

- A robust domestic demand and a dynamic non-tradable sector. In particular, the housing sector has grown at an average rate of 15.5% in the last four years. It is projected that, by the end of the year, the housing investment as a percentage of GDP will be more than double the levels of 2000.

- A well-capitalised and active financial sector. Credit to the private sector has kept growing at high rates, especially to business, both large and small. As a percentage of GDP, credit to the private sector has increased 80% in the last eight years. Credit to small and medium size firms has been particularly dynamic, increasing 60% as a percentage of GDP in the last four years.

- Increased competitiveness and diversification of exports. During 2007 and the first quarter of this year, Mexican non-oil exports to countries different from the US have been growing at more than 20%, compared with close to 5% to the US. While this is partly due to the fact that the Mexican peso is following the trend of the depreciation of the US dollar against other major currencies, productivity in manufacturing grew by twice the level observed in the US.

(Left to right): **Agustín Carstens and Angel Gurría**

Angel Gurría

- Higher investment in infrastructure. For the current year, largely due to the public finance reform that was approved last year, public investment will grow 24.6%, reaching its highest level in 20 years. PEMEX, highway, port and irrigation infrastructure will account for a significant amount of the public investment growth.

The strategy for promoting higher investment in infrastructure is based on higher government revenues and the creation of the National Infrastructure Fund, which seeks to leverage government resources with higher private sector participation. The goal is to reach an investment/GDP ratio of 25% by the end of the current administration.

Macroeconomic discipline, together with higher oil prices, has allowed Mexico to implement a counter-cyclical fiscal policy to boost economic growth and to overcome increasing food prices. On this front, a few days ago President Calderón announced a full package of measures to reassure the supply of food, promote agricultural production and productivity and support the poorest households to cope with increasing food prices. Among other elements, it is worth highlighting the additional income that will be granted to five million poor Mexican families through the "*Vivir Mejor*" Programme.

With all those elements in place, the Mexican economy is well prepared to maintain a positive growth path. Growth for 2008 is projected at 2.8% and at 4% in 2009.

Going forward, one of the main concerns for sustainable growth is climate change. This year, the 2008 OECD annual Ministerial Council Meeting will provide an opportunity for ministers to discuss the economic aspects of climate change and to reflect on the costs and benefits of adopting more climate-conscious policies.

Climate change has been identified as the single greatest threat to long-term global economic growth and stability. In focusing the work of the Forum to continue exploring the linkage between growth and the environment, the OECD again plays a critical role in helping to connect the technical aspects of the discussion over levels of greenhouse gas emission with a better assessment of its overall impact on economic welfare.

The resulting picture gives cause for concern. Not only are environmental risks considerable and increasing, but it is becoming clearer that the costs of mitigation will continue to grow if we fail to act soon, and in a co-ordinated and comprehensive manner.

The social dimension of the environmental challenge also presents stark choices, with the poorest and more vulnerable population bearing a disproportionate share of the risk.

In this context, climate change mitigation has to go beyond the transition of our economies to low carbon growth paths, and also look into the design and provision of specific assistance for the most vulnerable groups that will suffer the greatest consequences from global warming, such as low-income agricultural producers, whose livelihood will depend on more volatile climate patterns. In analysing policy options we must guarantee that mitigation will be closely tied to the goal of sustainable growth and macroeconomic stability, and will not unduly impose additional sacrifices on poorest households.

Since we all are responsible for the preservation of the environment, collective decisions and actions in this regard are needed. Although we all emit greenhouse gases, our obligations to mitigate climate change differ according to each country's capabilities and availability of financial resources. For emerging economies, mitigation efforts should not imply diverting resources out from other high priority productive and social programmes.

Therefore, national efforts need to be supplemented by global financing mechanisms. In this regard, based on the principle of common but differentiated responsibilities, President Calderón has proposed the creation of the "Green Fund". All countries would contribute to, as well as receive, resources from the Fund. Developed countries would receive less than their contributions. In this way, the Fund would be a means to transfer resources to developing countries.

I extend an invitation to governments and private investors to endorse this initiative that would become the financial arm of a post-Kyoto agreement."

Remarks by Angel Gurría, Secretary-General, OECD

"Dear friends: we are the environment!

If we do not change climate change, we will not survive. As simple and complex as that. Indeed, I can think of no greater threat to the well-being of our children and grandchildren, to the lives of millions of people in poor countries and thousands of irreplaceable animal species and plants, than the unchecked consequences of climate change. Addressing it is our generational responsibility.

Climate change is a multidimensional phenomenon. The solution is therefore also a composite. One of its most important dimensions is definitely about economics. The new international agreement that we must achieve at the meeting of the COP15, to be held in Copenhagen in December 2009, will require a strong economic platform. This is where the OECD is making its contributions, based on more than 20 years of experience, working out proposals to build a sound economic and financial footing for the post-2012 architecture.

We are doing this by blending experience and talent, and drawing from the wisdom of people like you. We are also doing it by working in close co-ordination with other international organisations and by supporting the host countries of COP14 and COP15, Poland and Denmark, to achieve successful results. We know that losing time means losing nature and losing lives; and that the more we postpone action, the more irreversible the damage will be and the higher the cost to fix it.

Current concentrations of greenhouse gas emissions have already reached 380 parts per million (ppm) of carbon dioxide equivalent (CO_2e); exceeding the natural range of the last 650 000 years. And if we continue with business as usual, these poisonous gases are expected to grow by over 50% by 2050.

This in turn would cause world temperatures to rise by up to 6 degrees Celsius by the end of the 21st century. This would be equivalent to the change in temperature since the last Ice Age – an era in which much of Europe and North America were under more than one kilometre of ice. Clearly, an unacceptable, unmanageable scenario.

Today we know that the economic and social costs of inaction are very high and that the consequences of inaction can make us highly vulnerable. Worse yet, the greatest impacts will be felt by developing countries and are already threatening economic, social and political stability in many of them.

Although the cost of ambitious mitigation policies is predicted to be considerably lower than the cost of inaction, it does not mean it will be cheap. Therefore, to build support for the necessary policy decisions, it is essential that we find the least-cost mixes of policy instruments to achieve significant emission cuts.

Some welcome steps have already been taken. At the international level,

David Eades

negotiations are underway to reach the above-mentioned post-Kyoto framework. At the G8 Environment Ministerial meeting in which I participated last week in Kobe, Japan, environment ministers discussed the possibility of aiming for a global target of halving global emissions by mid-century. At the national level, many countries are already taking action.

A promising start would be to set up a package based on market instruments, such as emissions trading or carbon taxes and pricing (or a combination of both), including the removal of harmful subsidies. These instruments encourage emitters to adopt the right behaviour and to look for abatement options where they are less onerous. However, they will not suffice on their own.

They should be complemented by other approaches like: regulations and standards, sectoral approaches, voluntary agreements and, very crucially, support for basic research and development to accelerate the technological breakthroughs that can bring the solutions faster and at the least cost. The focus on carbon capture and storage (CCS) seems particularly promising.

Pricing emissions can also stimulate eco-innovation. Producing cleaner and smarter energy is an essential part of the equation. Even in the best of scenarios, fossil fuels will still provide the bulk of our energy needs for several decades. More than three-quarters of the marginal increase of primary energy consumption through to 2030 will come from developing countries. Thus, so will emissions. These countries will need help.

The most difficult question is not only how much it costs to fight climate change but rather who is going to pay for it. The distributional aspects are a key element in finding a workable solution. OECD is focusing more sharply on this issue to propose cost-effective alternatives. The choice of policy mixes and instruments will also have different consequences for different countries.

Effective action against climate change needs participation from all countries of the world to avoid eroding its overall effectiveness (the so-called carbon leakage). The incentives for developing countries to take part in an international climate-policy framework will depend on the allocation of roles and actions, and on the support that is provided to facilitate such actions through financing, technology and capacity development. Therefore, while action is needed in developing countries, at least part of the costs will have to be borne elsewhere.

To move forward in addressing climate change, it will be crucial to mobilise political and social support. Thus we must produce high quality analysis, objective and reliable economic evidence and serious forecasts with credible scenarios. And we have to communicate these findings better to convince political leaders and legislators about the need for reforms.

This is where the OECD will make its more meaningful contributions. Tomorrow, we will be discussing this important issue among our member countries, five candidates for accession and the five Enhanced Engagement countries. We look forward to the results of this Ministerial which will certainly provide clear guidance to our efforts to contribute to the international response on this global challenge. But we will also closely follow the results of your discussions in this important OECD Forum 2008.

I encourage you to participate as actively as you can and contribute generously with your ideas for a solution that has to be found jointly.

Remember: we are the environment!" ■

Press conference held following the opening session

Sustainable development in the heart of Calyon's activities

Calyon, the Corporate and Investment banking subsidiary of the Credit Agricole Group, strives to observe and apply the Credit Agricole corporate values of developing long-term relationships with its clients and thus with society as a whole. In response to this objective, Calyon is a supporting partner of the "Quantitative Finance and Sustainable Development Chair" at Université Paris-Dauphine and is also one of the first banks to promote compliance with the social and environmental standards for project finance based on the International Financial Corporation (IFC) guidelines.

CALYON
CRÉDIT AGRICOLE CIB

www.calyon.com

GROWING TO MATCH YOUR GROWTH


Do you see a tree?
We also see a universal challenge.
More than ever, increases in water usage, energy consumption, waste generation and traffic congestion call for innovative solutions. As the global leader in environmental services, Veolia Environnement can help. Veolia brings together more than 320,000 employees to provide businesses and communities with sustainable, high-performance services in four core areas: water services and technologies, waste services, energy and facility management, and passenger transportation.
Preserving the environment is our universal challenge.
VEOLIA
ENVIRONNEMENT
VE
LISTED
NYSE
www.veolianorthamerica.com

Keynote panel
Climate change: Mobilising political will

- *MODERATOR:* **DORIS LEUTHARD**, MINISTER OF ECONOMIC AFFAIRS, SWITZERLAND
- **H.S.H. PRINCE ALBERT II OF MONACO**
- **ANGEL GURRÍA**, SECRETARY-GENERAL, OECD
- **YVO DE BOER**, EXECUTIVE SECRETARY, UNFCCC
- **PHIL GOFF**, MINISTER OF TRADE, NEW ZEALAND

(Left to right): **Angel Gurría and H.S.H Prince Albert II of Monaco**

One of the highlights of Forum 2008 was this keynote panel on climate change, moderated by **Doris Leuthard**, Switzerland's Minister of Economic Affairs and Vice-Chair of the OECD Ministerial Council Meeting.

Doris Leuthard opened the session by noting that there is convincing evidence that human activity is changing the climate and that global emissions will have to be cut, but projections suggest a rise of 50% by 2050. As a result, "we need to act and we need to act now". According to her, action is needed on both the national and international levels. Firstly, the recent UN convention on climate change agreed on a negotiation process to reach a new climate change agreement by 2012, when Kyoto comes to an end. But Doris Leuthard noted that we also need measures to harness the power of trade in favour of environmental goals. In addition, at the national level, countries need to define goals and establish close co-ordination among ministries.

Set out below are the remarks made by the four keynote panellists.

Remarks by H.S.H. Prince Albert II of Monaco

"The first day of this Forum on the environment, which has already debated a number of complementary themes, is ending with a topic that cannot be ignored yet is seldom addressed, namely the political dimension of the climate change issue. It is now accepted that, as the whole of mankind is up against this problem, it can only be overcome if politicians everywhere show genuine determination and join forces both on the international stage and at home.

The causes and effects of this challenge are largely dependent on modes of economic development. Yet we know how hard it is, in society today, to question these development processes because doing so has an impact on powerful lobbies, threatens vested interests and requires social change. Furthermore, while the impact of global warming has now been established, the public may not have fully taken on board all of the contributory factors.

But a number of expert reports, including the Stern Review, speak for themselves and echo the work of your Organisation. They all issue clear warnings about the huge long-term costs to the global economy if we fail to take action. The later we act, the more we will have to do to mitigate the impact of climate change. It is therefore most urgent that we take steps to rethink and revamp our energy systems.

Encouragingly, public opinion has evolved considerably over the past few years. Let us look at the progress made in the collective consciousness since the Rio, Johannesburg and Kyoto Summits. Al Gore in the United States and Nicolas Hulot in France have managed to heighten and accelerate environmental awareness in political debate because they resonate strongly with public opinion. It is my belief that opinion can raise awareness of the need for action.

The business world, too, is looking for political decision-makers who will lay down clear rules to tackle climate change while maintaining growth and prosperity. The United Nations Foundation

accordingly joined forces last year with the Club of Madrid, whose members are 70 former heads of state and government. Their joint initiative, known as "Global Leadership for Climate Action" (GLCA) endorses a comprehensive framework of recommendations to reach a global climate change agreement that should be acceptable to both the developed and the emerging economies.

At the "Clinton Global Initiative" last September in New York, I was pleased to give the support of the Foundation I set up two years ago under my own name to GLCA, a coalition of world leaders as well as leaders from business, government and civil society from more than 20 countries.

This project is opening up several major avenues. With the leadership and backing of Yvo de Boer, who I am glad to see is present here, and the UN Secretary-General Ban Ki-Moon, these guidelines paved the way for the agreement reached at the UN Climate Change Conference in Bali last December.

At its February meeting in Monaco, timed to coincide with the Special Session of the United Nations Environment Programme Governing Council, GLCA chose to focus this year's policy recommendations on technology and finance. It sees climate change as an opportunity to spur the development of low-cost, low-carbon technologies that will create new jobs and economic growth.

Our common objective must be to co-ordinate policy worldwide, as climate change is the first global crisis to affect every country – wherever it stands in terms of development or industrialisation – and every sector. To reach an international agreement, our mobilisation must now extend beyond the traditional circles of power to include the business world, NGOs and the public at large.

(Left to right): **Angel Gurría and H.S.H Prince Albert II of Monaco**

Within the Principality of Monaco, a small country admittedly but with a strong commitment to the environment, our action takes many forms, whether via government policy or my own Foundation.

Last February, I was proud to host the Special Session of the United Nations Environment Programme Governing Council, when environment ministers from around the world met in my country to draw attention to the particularly disturbing situation in the Arctic regions where global warming is occurring at twice the rate elsewhere. Hence my proposal during President Sarkozy's visit to Monaco on 25 April this year that the Principality be the headquarters of an Arctic observatory to centralise and co-ordinate research on the area, which is particularly vulnerable to global warming. My country will also be hosting an Arctic symposium within the framework of the 4th International Polar Year and the French Presidency of the Council of the European Union. Furthermore, Monaco has pledged to support an initiative by UNESCO Goodwill Ambassador Professor Malaurie on the need to protect indigenous peoples.

Curbing deforestation, an issue high on the Bali agenda, is another of our concerns. This is why I have committed my own country to a reforestation programme in Timor-Leste, a country I recently visited.

In the field of biofuels, where experimentation is required, both my own and the UN Foundations are working on a methodological framework to calculate the greenhouse gas emissions from such fuels.

The development of renewables, and the ensuing adaptation in construction, will lead to the emergence of new trades.

Another ambition I have for my country is to attract entrepreneurs and investment specialists involved in research, development and marketing in the field of new environmental technologies.

The Principality sees each of its initiatives as a practical demonstration of its vision for

the future, in partnership with the rest of the world.

Recent events are, in my view, giving signs of hope. In Kobe, on Monday 26 May, the G8 environment ministers agreed that the wealthier countries should set an example by targeting cuts in greenhouse gas emissions of at least 50% by 2050. What was just a research subject in Germany only last year has become a commitment. Some emerging economies attended that meeting. Targets were also set for them, albeit less precise ones.

Forthcoming events such as the UN Climate Change Conference in Copenhagen in 2009, or the end of the Kyoto Protocol in 2012, are certain to mark further breakthroughs thanks to the determination of politicians, supported by the general public.

A trend is taking shape throughout the world and is heightening my optimism. Among neighbouring countries, significant decisions are being taken in terms of environmental responsibility. France is moving quickly to adopt legislation in this field. The European Parliament wants to make it a criminal offence to cause serious damage to the environment. My country is fully in line with this trend and its forthcoming environmental code will not only lay down standards but also encourage the public at large to adopt environment-friendly behaviour.

I am delighted to see that the mobilisation we are calling for here tonight is already well underway."

Phil Goff

Remarks by Yvo de Boer, Executive Secretary, UNFCCC

"The year 2007 culminated in the Bali Climate Change Conference where both developed and developing countries agreed to jointly step up efforts to combat climate change and launch negotiations on a new climate change deal to be concluded in Copenhagen by the end of 2009.

There is no doubt: the Copenhagen deal will be struck. The world is expecting an agreed outcome in Copenhagen. Just as no self-respecting politician could leave Bali without a breakthrough, no self-respecting politician can leave Copenhagen without a deal on strengthened international action on climate change.

The challenge is to come to a Copenhagen deal that is effective in the sense that it measures up to what science tells us needs to be done to avoid the most dramatic impacts of climate change. This means halting the increase in emissions in the next 10 to 15 years and dramatically cutting them back by half by 2050. Secondly, we need to come to a deal that is equitable in the sense that every country does its fair share, based on the principle of common but differentiated responsibilities and capabilities. And thirdly, a Copenhagen deal has to make economic sense. Climate change is an environmental issue, but it clearly calls for an economic answer. The fact that climate change is the subject of this OECD Forum firmly underlines that climate change is about economic development. It is about steering the course of our carbon-emitting economies into a low emissions direction. It is about rewarding change and innovation.

Let me focus a bit more on this last point and address a couple of myths. The first one is that climate change policies will derail economic growth. With growing concerns about a worldwide economic recession, there is a tendency to concentrate on short-term worries and leave long-term issues for later. But ignoring climate change today will not pay off. Not acting on it now will eventually cost us more.

We need to alter the course of our carbon-emitting economy and this is possible at reasonable costs, provided the right mix of policies, measures and incentives is put in place.

A second often-heard concern is that a Copenhagen deal would lead to serious competitive distortion, especially in worldwide operating energy-intensive sectors of the economy. There are growing concerns about job losses and the move of economic activities from developed to developing countries that are not bound to emission reduction targets yet.

We all know that changing economic structures are part of the world's economic history and that the globalisation of the world economy has speeded up these shifts. Changes in economic structures have always known winners and losers. This will also be the case with the shift to a low-emissions economy. The losers are usually the most vocal, while it is the winners that hold our future.

I am not saying that we should not address these concerns. On the contrary, Copenhagen is about finding clever ways to carefully manage the shift to a low-emissions economy. But above all, Copenhagen is

about creating value for change, rewarding low emissions innovation, creating new investment opportunities and opening up whole new markets for businesses.

A third myth is that Copenhagen is about subsidising our way out of this problem. There are huge expectations about new streams of subsidies to finance clean development and adaptation.

True, there is a clear need for additional financial and investment flows. But with the right policies and incentives, a substantial part of that necessary additional money can catalyse far larger commercial flows. Fighting climate change is mostly about designing the right set of tools to alter the course of an investment super tanker.

What do I mean by that? According to the International Energy Agency, a massive investment of USD 20 trillion will be made to meet the world's energy hunger in 2030. Over 50% of this investment flow will go to developing countries where energy demand will grow fastest.

If these flows are not steered into low-carbon direction, global greenhouse gas emissions will go up by 50% in 2050, while we need a 50% cut of these emissions in 2050, according to the IPCC's lowest stabilisation scenario, the most ambitious scenario analysed so far.

Some 86% of these investments come from the private sector. A new international climate deal is therefore, for a very important part, about "making private money go where it has never gone before".

To sum up, the challenge in the run-up to Copenhagen is to design a clever architecture of policies, measures and incentives to fight climate change in the most cost-efficient way, to address the concerns of competitive distortion, and to reward change and entrepreneurial initiatives that will help the world economy turn the green corner.

What is needed is an intelligently blended set of tools: both public and private, both national and international. These tools can first of all be established within the Copenhagen deal. Secondly, we need to think how added value can be created through the Copenhagen deal. One example is the Clean Investment Framework of the World Bank. Thirdly, we also need to think about what is possible outside the Copenhagen deal. Examples here are export credits, the removal of trade barriers, loan guarantees, fiscal benefits for entrepreneurs and R&D budgets.

Copenhagen is not about finding the answers to all questions. Copenhagen is not about writing the rules for all possible games. Copenhagen is about unleashing innovations. Copenhagen is about creating rewards for change. Copenhagen is about freeing the spirit of enterprise."

Doris Leuthard

Remarks by Phil Goff, Minister of Trade, New Zealand

"It is in the nature of politics that short-term needs are put ahead of long-term benefits, particularly when the costs of change come before the benefits it achieves.

It is also a factor of politics that while the benefits of dealing with climate change extend across the whole of society, it is more difficult to mobilise and organise populations to achieve change than it is for vested interests to organise and prevent it.

Well-organised and funded emitters have been able more readily to apply pressure on the system to protect their interests. In the developing world, immediate needs such as food, shelter and jobs have taken precedence over considerations such as environmental sustainability.

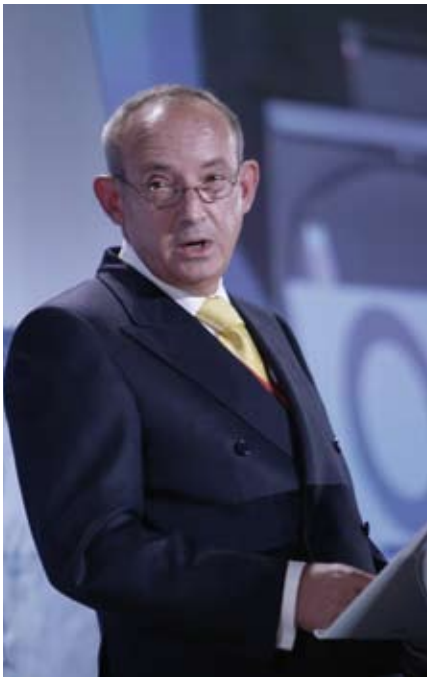
In the developed world, shareholders and employees have thought more about protecting their income and livelihoods than about the costs that their enterprises may have been imposing on the environment.

In these circumstances, it has been easier to challenge the science, particularly when there was not unanimity, than to accept the fact of climate change and therefore to have to meet the costs of tackling it.

Because the problem was global, it has also been too easy for countries to argue that they should not take action ahead of others and that it was futile for them to act and meet the costs of so doing if others were not doing likewise.

China and the United States between them probably produce half the world's emissions in absolute terms. Both will be reluctant to take the necessary actions unless convinced that the other, and the rest of the world, are doing likewise.

Fortunately, things are changing. Public and political awareness of climate change has grown to the point where global action against it is now starting to occur.



Yvo de Boer

This has been backed by sound science and rigorous analysis that has isolated climate change sceptics as a clear minority.

The result was last December's United Nations Climate Change Conference and the Bali Road Map.

This moved those outside of the Kyoto Protocol to accept the need for everyone to contribute to lowering carbon emissions. That acceptance however needs to be translated into actions so that the developed world helps with finance, adaptation and technology transfer while large countries in the developing world accept that they must then take steps to meet their commitments.

The OECD has an important contribution to make in this debate. Its analytical capacity lends crucial support to our understanding of the economics of climate change and to rational, evidence-based policy development.

It has effective channels for sharing its analysis and policy recommendations, including with major developing countries. And as a forum for engagement and open dialogue rather than negotiation, it has greater freedom to explore issues.

Finally, a perspective from New Zealand.

As an economy based on the primary sector, we are both particularly vulnerable to climate change and we have a unique greenhouse gas profile.

Half of our emissions come from our agricultural sector and comprise methane and nitrous oxide instead of carbon dioxide. Our scientists, working with international partners, are striving to find effective mitigation solutions.

Although New Zealand represents only 0.2% of global emissions, as a developed country we are committed to playing our part in implementing global solutions. Indeed, we have set ourselves a challenging goal by aspiring to be the world's first carbon neutral country.

One of the cornerstones of our response is an Emissions Trading Scheme, currently before our Parliament. The proposed scheme covers all sectors of the economy and all greenhouse gases, including those associated with agriculture. We anticipate that the Scheme will be fully phased in by 2013 and will be linked to the international market for Kyoto Protocol Units.

The political challenges in introducing this Scheme are as expected. Most are supportive of its introduction, but big emitters do not always agree on elements of its design as it affects them. And in an election year, some politicians will pretend that too much is being asked of the enterprise and that there is some easier but undefined solution.

What is important is that New Zealanders can be confident that the scheme is fair, will be effective and will not simply transfer emissions-intensive enterprises through carbon leakage to other countries which lack similar controls.

To manage this risk, the proposed Scheme provides for free allocation of emission credits during a transition period for sectors particularly exposed to international competition. The Scheme is therefore designed to avoid a loss of economic capacity while still providing a strong incentive to reduce emissions.

A range of other complementary policies and initiatives are also being put in place to help New Zealanders respond to a price signal for carbon and reduce emissions. These are focused on sustainable alternative energy (New Zealand already has 70% renewable electricity generation), energy efficiency and conservation, afforestation and major investment in research and development to help address agricultural emissions.

The government is also leading the way by pledging that 6 core public service agencies will be carbon neutral by 2012 and 28 others will be well on their way to carbon neutrality by the same date.

Realising the long-term vision of a low-carbon economy will not be easy and will mean some difficult decisions will have to be made in the short term. But the dramatic shifts in public opinion and demonstration of political leadership on climate change

Angel Gurría

(Left to right): **Phil Goff, Doris Leuthard, Angel Gurría and H.S.H Prince Albert II of Monaco**

in recent years are testament to the international commitment to finding a solution."

Remarks by Angel Gurría, Secretary-General, OECD

"Success in our efforts to address climate change depends on various factors: getting the numbers right; identifying the most appropriate instruments; striking an all-inclusive global deal for the post-2012 architecture; promoting new policies that foster eco-innovation. But moving forward on all of these tracks depends on another strategic element: mobilising political will.

Political will is the space where action starts; it is the DNA of new and better realities. It will be crucial to count on this powerful tool because we will have to set ambitious goals, to reach historical agreements and to take immediate action.

We have just published our five-year *OECD Environmental Outlook* and in this analysis we have several scenarios, one of which is based on stabilising greenhouse gas emissions in the atmosphere at 450 ppm by 2050. This is the one we would like to see happening. But to reach these ambitious goals, we will need a collective response and a mix of policy instruments.

Our analysis tends to give priority to market-based instruments such as cap-and-trade schemes, taxes or reforms of subsidies to fossil fuels, as they ensure that emissions reductions take place where they cost less. They also provide incentives for eco-innovation. These tools will need to be complemented by others, such as voluntary agreements, support for research and development on technological breakthroughs or codes and regulations for vehicles and buildings.

We will also need an innovative mechanism to share the costs of action amongst countries. A lot of the opportunities for low-cost emissions reductions are in developing countries, but many of them cannot participate if they have to bear the full costs of action. Financing to support mitigation and adaptation, as well as mechanisms to ensure technology transfer, will be needed.

And we will have to address the competitiveness issue. Many OECD countries are concerned that taking unilateral action on climate change might harm their competitiveness. And this is a fair concern. Introducing carbon reduction policies only in some countries could lead

companies to relocate to other countries that do not apply strong climate policies; the so-called "carbon leakage" concern.

Our analyses show that this effect is likely to be small and, if it exists, it will only affect certain energy-intensive and trade-exposed industries. Still, the best guarantee to avoid carbon leakage is a comprehensive country participation in the post-2012 framework.

But let us also look at the other side of the coin: tackling climate change brings new opportunities that can improve competitiveness in some sectors. Ambitious environmental policies can act as a catalyst for eco-innovation; for example, by creating new markets for low-carbon technologies. Some countries have acquired a competitive or "first mover advantage" in the renewable energy sector by strategically investing in the development of "green" sectors.

To move forward, political leaders will have to take decisions that imply risks and political costs. Multilateral organisations are ideal vehicles to move forward because, in a multilateral framework, such political risks and costs are shared. Thus, OECD is working, in close co-ordination with other international organisations, to provide such a framework and lower the political costs of necessary decisions.

Political decisions are based on information. We must provide decision-makers with high-quality analysis, objective and reliable economic evidence and serious forecasts with credible scenarios. We also need to let them know what others are doing: what reforms are being pushed forward in other countries, what has failed and which best practices are already working. They need to be able to compare their country's performance, to project and to estimate the costs of alternative solutions.

And, crucially, we have to communicate these findings better; translating the complex facts and figures into common language. Otherwise it will be difficult to convince our societies to pay the cost now to avoid a long-term risk that can turn into a tragedy tomorrow.

Normally, political decisions are taken with a considerable level of uncertainty. In addressing climate change we will be taking decisions with enough information to evaluate alternative scenarios; with sufficiently reliable data to justify and support our actions and their costs, our policies and reforms.

Stopping climate change is a big challenge of the political economy of reform. And just like any important political decision with broad economic and social implications, we will need to mobilise public opinion; we have to involve voters in the project.

Decisions and action by national governments are critical but it is equally fundamental that social actors like the business community, trade unions, NGOs, universities, think-tanks, etc. get involved and commit. This is why this Forum is so important. Minister Leuthard will report the conclusions to the OECD Ministerial Council Meeting. Of course we will need new policies, regulations and standards at all levels of government; but they cannot have a broad impact if they clash with the expectations of people.

OECD will keep working to provide decision-makers and society with comparable and user-friendly data, new ideas and alternative routes to reverse climate change. We will keep blending experience and talent to generate alternative solutions based on common understandings. We will keep providing a hub for global dialogue on climate change issues.

Because we are convinced that a brighter, greener future is possible. And we trust we can sell this notion to our constituencies.

Because that is what we are about: building a more balanced, sustainable and inclusive globalisation for the benefit of future generations." ■

(Left to right): **Pier Carlo Padoan, H.S.H Prince Albert II of Monaco and Angel Gurría**

World Environment Day 2008
at the
OECD FORUM

New Zealand hosted World Environment Day 2008 on behalf of UNEP, and celebrated the event at the OECD FORUM

newzealand.govt.nz

World Environment Day 2008

New Zealand, one of the first countries to pledge a carbon neutral future, played host to the World Environment Day 2008, an initiative of the United Nations Environment Programme (UNEP). This event is commemorated yearly on 5 June, and New Zealand Minister of Trade, Phil Goff, hosted a reception at the OECD Forum to mark the occasion.

Every year, World Environment Day encourages us to focus on the importance of protecting our environment. It provides the opportunity to raise awareness by motivating governments, businesses, and communities around the world to take the actions necessary to bring about lasting improvements, thus ensuring the ability of the planet to sustain future generations and enjoy a safer and more prosperous future.

Innovation and climate change

Getting the prices and policies right

- *MODERATOR:* **CHRIS GILES**, ECONOMICS EDITOR, *FINANCIAL TIMES*
- **ASIT K. BISWAS**, PRESIDENT, THIRD WORLD CENTRE FOR WATER MANAGEMENT
- **DAVID FOSTER**, EXECUTIVE DIRECTOR, BLUE GREEN ALLIANCE, UNITED STATES
- **LORENTS LORENTSEN**, DIRECTOR, ENVIRONMENT, OECD
- **STEVE WESTWELL**, EXECUTIVE VICE-PRESIDENT, BP

Beyond government support, innovation requires markets that create incentives to innovate. Getting the price right is not just a market imperative, it is crucial to finding new technologies to boost efficiency and stimulate new ways of doing things.

Chris Giles opened the session by articulating everyone's aspiration: a low-carbon economy based on cleaner technology that will bring about expanded economic opportunities. However, he fears that this may be too simplistic a view given that dirty "brown" technologies are still cheaper than "green" ones and will continue to be so if the mechanisms needed to balance the costs of adopting greener technologies against the costs of doing nothing are not put into place.

Lorents Lorentsen agreed, adding that we have long been sailing according to a misguided economic compass where energy prices are not adjusted to incorporate economic externalities. OECD countries, for example, still subsidise fossil fuels. Developed countries should instead formulate stable, long-term policies – taking into account the notoriously low capital turnover in the energy industry – that promote investment in new technologies in order to avoid locking in the old technologies responsible for greenhouse gases.

Hence "getting energy prices right" is part of the answer. But he also said that a "badly needed systemic change" was essential to reduce the carbon impact. Such changes will generate jobs, but he cautioned that using environmental policies to solve unemployment problems could weaken the efficiency of those policies. Research has shown that revenue-neutral environmental policies have had no effect on overall employment. He favoured a carbon tax, adding that carbon "was priced too low today".

Asit K. Biswas felt that a crucial element had been dropped from the debate: the impact of population on future environmental policies. The demand for better standards of living in emerging economies such as China and India cannot be overlooked. The difference between a population of 9 billion as compared to one of 10 billion is significant and would affect the amount of future carbon emissions.

Nor can population be separated from the questions of resources, particularly water. Asit K. Biswas warned that the role of this natural resource in climate change should not be ignored. In India, for example, 22% of electricity is hydroelectric, and in France, the largest consumer of water is the energy sector. In spite of this dependency, our knowledge of this realm is scant. A better understanding is required if we are to plan future water management successfully.

David Foster underlined the imperfection of markets and "the excesses of the last two decades of globalisation". He said that the Blue Green Alliance supports the introduction of an auction-based system for the distribution of emissions permits, notably in order to avoid global speculation on carbon. He also declared that the organisation regards international trade regulation as closely tied to environmental issues.

On the controversial topic of border taxes, he thought that these should take into account the entire carbon life cycle of products. Furthermore, David Foster strongly emphasised the social dimension of climate change and emphasised greater

Steve Westwell

social equity and workers' involvement in the innovation process. "Will the global economy in a post-carbon world, both in aggregate and in each country, be more equitable or less?", he asked.

Steve Westwell stated that growth and progress must continue, but that its character must change. BP aimed at a 10% reduction in emissions by 2010, an objective it achieved nine years early, thanks to stringent targets, innovation at every level of the workforce and the creation of real wealth. Emission reduction initiatives, it turned out, were good for business. The estimated overall discounted value of realised saving came to USD 2 billion. Furthermore, energy conservation alone can amount to some 20% in emission cuts.

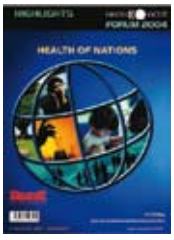
As of now, 98% of the world's transportation needs depend on oil, which puts BP in a delicate situation regarding climate change and cleaner energy. BP will invest USD 8 billion over the next ten years to develop wind, solar, and combined-cycle gas turbine power sources. Steve Westwell believes that progress will arise from greater efficiency, biofuels, electrification and nuclear power. Carbon removal and sequestration technologies – already on hand but requiring further development – will also play a major role.

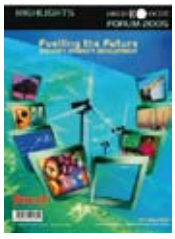
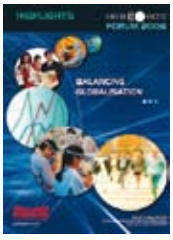
At the end of the session, the moderator asked the panel members how they felt about the future. Lorents Lorentsen and Asit K. Biswas expressed optimism, as did David Foster after voicing his confidence in social movements. Steve Westwell, however, answered that he was "less optimistic than five years ago" because he believes that the world lacks the necessary framework for change in the right direction, despite the fact that it has adequate technology. We have the economics and, in his opinion, the technology would come; indeed, innovation would exceed our expectations, he said. But where were the policy frameworks, and the agreements? Did this require more government mandates? He felt that a fundamental change in behaviour would bring better results than any government mandate ever could. "I place my trust in the common sense of humanity", he said. ■

Previous OECD Forums - Don't miss the next one!








What role for biofuels?

Good for consumers?

- *MODERATOR:* **AART DE GEUS**, DEPUTY SECRETARY-GENERAL, OECD
- **EDUARDO LEÃO DE SOUSA**, EXECUTIVE DIRECTOR, UNICA, BRAZIL
- **JOSÉ LOPEZ**, EXECUTIVE VICE-PRESIDENT, NESTLÉ
- **STEFAN TANGERMANN**, DIRECTOR, TRADE AND AGRICULTURE, OECD

José Lopez

Climate change and soaring oil prices have brought biofuels into the limelight. But **Aart de Geus** began this session by asking: "biofuels were good news for some farmers, but what about consumers?" Many questions were asked of biofuels. Were they really cleaner than conventional fuels? Were they a feasible alternative for transport? Did they reduce CO_2? And what role should public policy play in addressing biofuel production? Nevertheless, as Aart de Geus pointed out in this lively session, questions could be raised about all alternative fuels, but what also must be considered is using less fuel altogether, regardless of the type or origin.

"Water and food are more important than energy", asserted **José Lopez**, as he highlighted the relationship between these three vital commodities. José Lopez provided a perspective on the often overlooked network effects of biofuel production. He explained that up to 25 litres of oil is required for desalination of 10 cubic metres of water, while 10 cubic meters of water is required to grow crops which can produce between one and five litres of biofuel. Yet while many countries are experiencing major water shortages, their governments are subsidising the water-intensive biofuels industry.

José Lopez warned against simplistic views on biofuels which look on them merely as alternative energies. "Biofuels have two components, 'bio' and 'fuel'", he said. The first reminds us that there is an important environmental aspect to the second. Agriculture is very water-intensive and biofuels and food compete for this precious resource. Today, we are simultaneously using water to create energy and energy to create water. Given this situation, any future role for biofuels appears bleak.

This is not the case in Brazil, as explained by **Eduardo Leão de Sousa**. He defended the environmental impact of Brazil's sugarcane industry by stating that "90% of Brazil's sugarcane crop is rain-fed, not irrigated", and that sugarcane crops for biofuel occupy only 1% of arable land. This is sufficient for ethanol to account for over 50% of fuel sales in Brazil, where there is a mandatory 25% blend of ethanol in all gasoline sold. The energy balance of producing ethanol from sugarcane is four and a half times better than using a wheat crop, and seven times more efficient than corn-based ethanol, he added.

Some 87% of the sugarcane grown is harvested in the south-central region of Brazil, and 13% in the North-East. Eduardo Leão de Sousa said that both areas are "well away from the Amazon rainforest", and that future expansion would use degraded pastures.

Brazil's bioethanol production is not government subsidised which, according to **Stefan Tangermann**, is essential for economically efficient energy production. He said that the OECD works with governments on biofuel policy, and that they are not concerned with market forces. Stefan Tangermann explained that global subsidies, tariffs and mandates related to biofuels total USD 15 billion per year, and that this value is expected to double by 2015. He suggested that OECD governments consider biofuels "a great idea" for reasons of energy security (cutting dependence on imported oil, for instance) and public opinion. Lobbyists and pressure to support rural communities also play a role. However, while biofuels currently appear popular with OECD governments, they are rarely profitable, even at high current oil prices, since fossil fuels are still a significant input into the biofuel production process. Subsidies would be better spent on research and development of second and third generation biofuel technology, he argued.

Stefan Tangermann also drew attention to the recent OECD report that shows a link between biofuel production and rising global food prices. He said that one-third of the expected 10%-15% inflation-corrected increase in world food prices could be attributed to the projected increase in biofuel production. Eduardo Leão de Sousa reiterated that biofuel production in Brazil only accounted for 1% of the agricultural land usage, and questioned whether it could possibly affect food prices. "It would be like the tail wagging the dog", he said. Stefan Tangermann responded that in the global market "that is exactly how it works".

In questions from the floor, a representative from the French Ministry of Agriculture stressed that the tools available to measure impact were insufficient. He contested the OECD analysis that biofuels would contribute to higher food prices and defended European subsidies on biofuels; he regarded a 15% increase in inflation-adjusted food a prices as insignificant.

A participant from the US argued that the entire debate centred too much on the internal combustion engine as the only transportation around, and proposed solar-electric powered cars. Speakers acknowledged that biofuels had a limited role and that real alternatives should be further explored.

A representative from the Canadian *Chambre des Communes* wondered if OECD could produce a tool to measure a life cycle environmental impact of fuels. He mentioned fertilisers required in producing biofuel feedstocks. Stefan Tangermann announced that a report on this very idea would be released to the public by the Secretary-General in approximately two weeks. It contains detailed analysis of energy sources taking into account full life cycle, social, economic and environmental impacts.

A gentleman commented that in North America, a 5-litre engine car running on 85% ethanol fuel would require a subsidy of about USD 500 p.a. He questioned whether the US economy could withstand this burden. The response from both Eduardo Leão de Sousa and Stefan Tangermann was simply that North American countries could eliminate this problem by abolishing subsidies on biofuels.

A representative from the Indian Institute of Finance drew attention to other bio-energy sources such as agri-waste and woodchips that are used in India and do not compete with food production. Over 30% of India's energy supply is bio-energy which had enabled energy independence to be achieved in several communities. This may be a model that is transferable to other high-population countries. ■

Aart de Geus

Climate change and finance

Funding a low-carbon future

- *MODERATOR:* **JEAN-MARC VITTORI**, EDITORIAL WRITER, *LES ECHOS*, FRANCE
- **BERNARD CLERFAYT**, DEPUTY MINISTER OF FINANCE, BELGIUM
- **JAN H. KEPPLER**, PROFESSOR OF ECONOMICS, PARIS-DAUPHINE UNIVERSITY, FRANCE
- **JAMES P. LEAPE**, DIRECTOR-GENERAL, WWF INTERNATIONAL
- **DORIS LEUTHARD**, MINISTER OF ECONOMIC AFFAIRS, SWITZERLAND
- **ALAIN MASSIERA**, DEPUTY CEO, CALYON

Alain Massiera

Jean-Marc Vittori began by recalling past misunderstandings between the financial and environmental communities, nevertheless noting that the relationship between these two groups had recently improved. But the core questions remain: how can the finance industry tackle environmental issues, and how can environmental initiatives be profitable to those who practice "green finance"?

Jan H. Keppler pointed out that, for those in the financial sector, attitudes towards the environment have changed. The financial sphere is no longer regarded as a threat to sustainable development, but as a source and driver of some very promising initiatives. Environmental markets have been established, including the emissions trading market for CO_2 in Europe. New indices have been created that focus on the social and environmental performance of firms, such as the FTSE4Good, the Dow Jones Sustainability Index and the NASDAQ Clean Edge. Thus, climate change is now at the core of financial investment strategies.

Ethical and carbon investment funds are another step in the right direction. According to Jan H. Keppler, the potential of such funds is immense, but the appropriate foundations still need to be established. The Equator Principles were presented as an example of what can be achieved. These principles require that project financiers assess the social and environmental impact of projects prior to granting financing. Jan H. Keppler concluded by suggesting that the OECD take steps to establish guidelines for ethical investment funds.

Illustrating the growing role of the "cleantech" sector in the real economy, **Alain Massiera** noted three significant and recent events. Firstly, the renewable energy subsidiary of a leading renewable energy producer, EDP, undertook an initial public offering that was hugely oversubscribed. Secondly, Bosch launched a bid to acquire a solar panel manufacturing company. Thirdly, analysts are expecting the price of solar technologies to fall due to excess production capacity, which could precipitate higher demand and a reduction in subsidies to the solar energy sector.

Financial initiatives within the "cleantech" sector remain fragmented in Alain Massiera's view. He presented a range of initiatives that Calyon is undertaking, including a partnership with educational institutions, which aims to anticipate the impact of carbon constraints on the long-term value of listed companies. Calyon also trades carbon on the European Union Emissions Trading Scheme, the value of which could rise from between EUR 60 and EUR 80 billion today to EUR 150 billion by 2012, and EUR 500 billion by 2020. Calyon also finances a range of renewable energy projects and has a number of green investment funds in development. But all of these activities need a transparent regulatory environment in order to further stimulate development.

"We are heading into a fundamental transformation of the global economy", said **James P. Leape**, adding that "the acceleration we have seen is nothing

compared to what we need to see". As part of this transformation, reputations are becoming increasingly pertinent. He gave the examples of General Electric and Toyota, both of which have made significant efforts to explain that they are not part of the problem but part of the solution. These claims are not just "greenwash", but are supported by tangible changes to their product lines and business practices. Firms are also becoming aware that environmentally responsible policies can cut operating costs.

James P. Leape suggested that investors and the private sector could take a leading role, in advance of government intervention. It is partly the responsibility of civil society to ensure that there are risks to reputations associated with corporate inaction in the face of climate change.

Doris Leuthard injected a note of realism based on her first-hand experience of the speed of the legislative process. Providing a reliable legislative framework and convincing civil society will not happen quickly, she said, particularly considering the multilateral nature of the legislation required. While agreeing that governments should play a central role in the formation of an enabling environment for sustainable investment – eliminating distorting subsidies and promoting "a level playing field" with consistent long-term policies – Doris Leuthard reiterated that the financial sector must play a supporting role in the development of best practices. In conclusion, she stated that the overall goal to facilitate the transition to patterns of sustainable development should be "a global cap-and-trade system for carbon".

(Left to right): **Bernard Clerfayt and Jan H. Keppler**

Supporting Doris Leuthard's contention that the legislative challenge is a significant one, **Bernard Clerfayt** pointed to a recent OECD study that identified 300 separate taxes on energy, and more than 1 000 exemptions supported by OECD countries. While highlighting the need for reform and consolidation, he reminded the audience that any new tax on energy "will have immediate distributional consequences" between the rich and the poor, and therefore the pursuit of a legislative goal will require more than a single mechanism. To address the challenge, Bernard Clerfayt described the need for a consistent move towards the global vision and credible policies to develop the trust and confidence of the public and private sectors. Finally, with general agreement on the need for a combination of legislative and private sector measures to tackle the spectre of CO_2-induced climate change, Bernard Clerfayt closed with a reminder that many other negative externalities remain to be addressed before sustainability is truly achieved.

Jean-Marc Vittori asked the panellists to comment on shareholder responsibilities. James P. Leape said that markets are notoriously short-sighted, and that many shareholders would always take decisions based solely on short-term returns. However, according to Bernard Clerfayt, effective legislation can redirect market decisions in favour of transformation of consumption behaviours and ethical initiatives.

In questions from the floor, a delegate from Quebec wondered about the consequences for any country that did not sign up to a future global agreement on climate change. In response, Bernard Clerfayt said that any country must consider this question or risk becoming uncompetitive. A positive aspect of globalisation is the emergence of a global consensus. Doris Leuthard added that countries also must act in favour of CO_2 emission cuts to bolster their reputations at international gatherings and on the global market. ■

(Left to right): **James P. Leape and Doris Leuthard**

Snapshots from OECD Forum 2008

Sustainable cities

Microcosms for change

- *MODERATOR:* **DAVID EADES**, PRESENTER, BBC WORLD NEWS
- **TASNEEM ESSOP**, MINISTER OF ENVIRONMENT, PLANNING AND ECONOMIC DEVELOPMENT, WESTERN CAPE, SOUTH AFRICA
- **GENEVIÈVE FERONE**, VICE-PRESIDENT, SUSTAINABLE DEVELOPMENT, VEOLIA ENVIRONNEMENT
- **MICHEL LE SOMMER**, ENGINEER, LE SOMMER ENVIRONNEMENT, FRANCE
- **HIDEAKI ODA**, COUNCILLOR TO THE PRESIDENT, JAPAN WATER FORUM
- **MARIO PEZZINI**, DEPUTY DIRECTOR, PUBLIC GOVERNANCE AND TERRITORIAL DEVELOPMENT, OECD

(Left to right): **Geneviève Ferone and Michel Le Sommer**

Cities are often the engines of a country's economic growth. This means that, on average, cities consume 75% of national energy supplies and account for 80% of national greenhouse gas emissions. Cities should therefore play a central role in environmental policy-making.

But speakers at this session unanimously agreed that this has rarely been the case. Above all, the sustainable city is still a model rather than reality, and very clear and practical ideas on how to implement sustainability have yet to mature.

Mario Pezzini lamented that discussion of climate change and sustainability has until now been focused on the national or sector level, not at the level of cities. "We rarely speak about cities where the focus should be", he said. "In fact, the level of discussion concerning cities is generally quite poor." This misalignment of priorities was emphasised throughout the session.

"Sustainability is fundamentally about social justice and equality", said **Tasneem Essop**. The approach adopted by the Western Cape in the development of their Provincial Spatial Development Framework is based on the "triple bottom line" approach, encompassing equal consideration of economic, environmental and ecological issues for development and growth. Legislation and guidelines on these issues are critical in order to steer a regional development that addresses the current needs of society and the legacy of the Apartheid era. A development strategy must take into account the environmental and social base of the region if it is to preserve its "ecological integrity".

Geneviève Ferone agreed with Tasneem Essop regarding the need to consider the sustainability of cities in a broader social context. She argued for a very deliberate, planned integration of the population into communities that mixed social, ethnic and age categories. This is not currently the case in most modern cities. Yet, this is as vital to the politics of sustainability as are local economics, transport and architecture. Transport modes should reflect this: "No-one should feel excluded, not the pedestrian, the motorist or the person on a bicycle." This social revival requires functional diversity. It is essential that nature is brought back into cities "to let people breathe". In response to climate change, future economic growth will be largely regionalised to reduce carbon footprints. More products must be sourced locally, resulting in "a new revival" of medium-sized cities which are brought closer together by modern transportation and information systems.

"The future definitely belongs to medium cities", said Geneviève Ferone. Mario Pezzini added that cities generally see a decline in GDP per capita once their populations grow beyond six million.

(Left to right): **Hideaki Oda, Mario Pezzini and David Eades**

Water is a central element of urban sustainability and Geneviève Ferone insisted on the need to undo the work that has rendered cities impervious to rain and distanced them from their sources of water.

Hideaki Oda presented a vision of what can be achieved in this respect, hailing the restoration of the Calamus River in Beijing in preparation for the 2008 Olympics and the CheongGheChong project to develop a waterway in the South Korean capital Seoul. The realisation of green areas in cities is essential and Hideaki Oda argued that sustainability is a "switch from economically-oriented cities to sensibility-oriented cities".

Michel Le Sommer, who works with local authorities, brought concrete examples of implementing sustainable city models on a smaller scale. He described the process of developing solutions in response to urban issues such as affordable housing, social integration and conflicting requirements for the essential resources of space, energy and water. Developing relevant indicators is central to identifying areas in need of improvement and to helping local authorities understand the need for change while sharing limited resources. They also play an important role in monitoring progress made. Such metrics are being actively developed by the Sustainable Building Alliance for use as future benchmarks.

The presentations from the panellists were followed by questions and comments from the floor. One participant remarked that all cities appear to be far from the ideal of sustainability that the speakers describe, and that examples of best practices were badly needed. Geneviève Ferone agreed that examples are limited to small-scale "eco-neighbourhoods", developed mostly as private projects. ■

Tasneem Essop

Partnerships for tackling climate change

A condition of progress

- *MODERATOR:* **PETER KEMP**, EDITORIAL DIRECTOR, *ENERGY INTELLIGENCE*, UK
- **KRISTIN HALVORSEN**, MINISTER OF FINANCE, NORWAY
- **GYEHYUN KWON**, VICE-PRESIDENT, SAMSUNG ELECTRONICS CO. LTD.
- **SYLVIE LEMMET**, DIRECTOR, DIVISION OF TECHNOLOGY, INDUSTRY AND ECONOMICS, UNEP
- **PIERRE LIAUTAUD**, VICE-PRESIDENT, WESTERN EUROPE REGION, MICROSOFT EMEA
- **JOHN J. SWEENEY**, PRESIDENT, AFL-CIO

(Left to right): **Kristin Halvorsen, Gyehyun Kwon and Sylvie Lemmet**

Partnerships will play "a critical role" in the international agreement that will succeed Kyoto, **Sylvie Lemmet** predicted, adding it would be "the most complex" international treaty ever negotiated. "We must be open to ideas and partnerships that do not easily fit the 'business-as-usual' mindset", she said, "knowing they may conflict with the reality of political and other restraints".

The unprecedented challenge of tackling the causes of climate change requires the efforts of all sectors of the economy. "The threats presented by climate change mean we must challenge the very way we think about our economies, our jobs and our children's future." Sylvie Lemmet said UNEP's approach was to join in partnerships with governments, the private sector, and civil society, in order to develop and test new approaches to produce outcomes that would otherwise have been beyond the reach of any one single partner.

Speakers from industry management, unions and government all agreed on the urgent necessity to build partnerships, involving governments, private companies, academia, workforces and the wider public.

Kristin Halvorsen argued that it was the responsibility of governments to take the lead in mapping conditions for these partnerships, and to develop specific measures to encourage and develop low-carbon technologies. There is much which governments can do to provide financial structures and incentives, as well as punitive measures to dissuade polluting activities. This was the case in Norway, where an ambitious programme had been launched to reduce by 40% the 2000 level of CO_2 emissions by 2050.

Gyehyun Kwon spoke of the contribution of partnerships between employers and employees, both to adopt greener working practices but also to encourage off-site personal lifestyle habits that are more responsible towards the environment. In 1996, Samsung introduced a wide-ranging "green management" charter which defined the nature of its products and manufacturing processes, its working practices and its environmental responsibilities towards communities around its industrial sites. Gyehyun Kwon said the partnership between Samsung and its employees raises awareness about group and individual environmental responsibility, and had met with positive reactions. It had also significantly contributed to decreased energy consumption within the company.

But **John J. Sweeney** warned that "there will be no such thing as environmentally-

friendly production if workers' rights are not respected and workers are not trained continuously for the jobs of the future". Current growth patterns are unsustainable and there is an urgent need for a change of course to a lower carbon path. "A greener economy requires the transformation of the production chain itself, using worker commitment, creativity and skills", he said. But the "massive" transformation in production methods required taking into account "those who stand to lose their livelihoods as a consequence of changes in energy and production systems".

However, John J. Sweeney said labour organisations were partners for changes in industrial practices that were designed to tackle climate change. It was a "false choice" to decide between a stable climate and a strong global economy. "As unions, we are convinced that today's workplaces must be transformed," he said. "The global economy cannot prosper unless we secure a stable climate and sustainable sources of energy."

(Left to right): **Pierre Liautaud and John J. Sweeney**

Pierre Liautaud said climate change, energy efficiency and environmental sustainability had moved into the mainstream of business strategy. "In the IT industry, this shift is well underway and there is a strong emphasis on partnership – within the industry, with the scientific community, customers and governments – to reduce energy consumption and drive innovation."

Pierre Liautaud said the IT industry was tackling climate change by helping society to better manage its resources. Reliable and timely information was key to positively changing behaviour. The ICT sector uses 2% of global energy consumption and this will be even less in the future thanks to new innovations, such as desktop computers, which before consumed 200 watts and now used only 70 watts. "There is huge potential for the intelligent use of digital technology by consumers, business and public authorities to reduce the remaining 98% of energy consumption", he said.

Pierre Liautaud agreed with Kristin Halvorsen, saying that governments should take the lead in creating the conditions for an innovation economy that focused on sustainability. "Governments have an important responsibility to set up the appropriate policy frameworks for eco-innovative companies to succeed", he said. He called for more academic and private sector partnerships through clusters but, for this, governments must provide funding and incentives for academia.

Regulatory regimes must encourage venture capital and other financial backing for the creation of eco-innovative companies. He wanted a robust intellectual property rights framework to protect innovations and to guarantee proper returns on R&D investment.

After the presentations, one questioner from the floor asked what could be done to avoid obsolete technology being dumped on developing countries. Sylvie Lemmet responded that one of the most important issues in tackling climate change was to effectively reduce the technological "delay" between developed and developing countries. ■

Pierre Liautaud

Nuclear energy: What part of the solution to climate change?

Nuclear's moment?

- *MODERATOR:* **JEREMY WEBB**, EDITOR-IN-CHIEF, *NEW SCIENTIST*, UNITED KINGDOM
- **LUIS ECHÁVARRI**, DIRECTOR-GENERAL, NUCLEAR ENERGY AGENCY, OECD
- **PHILIPPE ESPER**, PRESIDENT, EUROTRADIA INTERNATIONAL, FRANCE
- **HELGA KROMP-KOLB**, PROFESSOR, BOKU UNIVERSITY, AUSTRIA
- **JEAN-POL PONCELET**, SENIOR VICE-PRESIDENT, SUSTAINABLE DEVELOPMENT AND CONTINUOUS IMPROVEMENT, AREVA
- **SIR CRISPIN TICKELL**, DIRECTOR, POLICY FORESIGHT PROGRAMME, JAMES MARTIN INSTITUTE, OXFORD UNIVERSITY, UNITED KINGDOM

Jean-Pol Poncelet

Nuclear energy is back in focus as a low-carbon emissions technology. Governments look at nuclear as a part of the policy mix on climate change. Still, public concerns remain.

Jeremy Webb remarked that nuclear power has always been a contentious issue but that, over the past decade, global warming has changed the perception of nuclear energy. If nuclear energy was once "a little bit dirty, but cleaner", it is now "a little bit more expensive, but cleaner".

He outlined three major challenges facing the nuclear industry: the time lag between the decision to build a reactor and its completion, the sustainability of radioactive waste disposal, and the cost of security.

Luis Echávarri noted that nuclear energy provides 23% of electricity in OECD countries. While no significant improvement in nuclear technology has emerged in the last 20 years, plants continue to run at 85%-95% of capacity. He projected that nuclear energy will meet 94% of overall electricity demand in 25 years, or 55% of overall energy demand. Nuclear energy, he felt, is a mature technology, capable of meeting our energy needs.

But according to some figures, the global uranium supply may only last a few decades, 150 years at best. However, Luis Echávarri produced figures from recent OECD findings which indicate that, at current demand, known supplies of uranium should last between 250 and 300 years. Hence, a uranium shortage is not an issue.

While nuclear is competitive compared to fossil fuels, plants require a large initial investment, and a long approval process. He swept aside the argument that nuclear energy competes with renewable energy; it does not. It competes with fossil fuels both in terms of price and CO_2 emissions, as these are currently the available ways to augment base capacity.

The main argument in support of nuclear power as a means of mitigating climate change is that its carbon life cycle is zero. Current production levels save about 8% in emissions. However, the solution

is far from perfect; we need a stable regulatory environment, ongoing dialogue with stakeholders concerning the issue of radioactive waste, more qualified personnel, and an industrial base to support the mass commissioning of reactors. On this last point, he noted that more reactors might induce a bottleneck in the fuel supply chain. He concluded that it was up to societies to make the choice, given what we know about nuclear power.

Philippe Esper reflected instead on the merits of nuclear power in helping to reduce current energy tensions. His concern was centred on security and how electronuclear energy can be made safe and reliable.

Demographic and economic growth has driven up the demand for energy. At present, electronuclear energy accounts for only 16% of global energy consumption, compared with 40% for coal and 27% for hydrocarbons. However, nuclear power is gaining adherents, faced with soaring oil prices and the need to cut emissions, despite rising construction and installation costs.

After 25 years of nuclear stagnation, Philippe Esper sees a fresh opportunity for nuclear energy. It could provide up to 25% of the world's energy consumption. But such a renaissance depends on whether nuclear energy can remain competitive with other energy sources, whether safety and non-proliferation are addressed and energy supply and demand is well-managed, and finally, whether all players in the supply chain co-operate.

Jean-Pol Poncelet affirmed that nuclear power can indeed contribute to solving the problem of climate change. Aside from emissions reductions, it is competitive with coal-based power plants. And it is a safe and reliable way to produce electricity. Moreover, 95% of nuclear energy material is recyclable, a percentage that represents a mere 10% of the final bill. A larger part of the added value lies in the capabilities of the local personnel. Finally, he argued that the externalities are recouped in the costs of nuclear energy.

Jean-Pol Poncelet thinks that we can eventually move towards an economy running on 60% clean energy, or nuclear coupled with renewables. The biggest problem is that licensing in the EU region is chaotic. National rules prevail and procedural requirements are muddled, creating strong constraints to the building of new nuclear plants and hampering nuclear development. Compared to the situation in the United States, where regulation is harmonised across States and a USD 100 million proposal can easily pay for itself, proposals for each member of the EU simply cost too much money at this time.

(Left to right): **Jeremy Webb and Luis Echávarri**

Sir Crispin Tickell pleaded for coherent energy policies. He regretted that high policy externalities, such as taxes, prevented us from knowing if nuclear really was cost-effective. He also claimed that "the problem of future supply was not so important" and that there were alternatives to nuclear.

The EU is a leader in nuclear energy. In surrendering that leadership is effectively handing it over to emerging economies such as China or India. Does the EU want to surrender that leadership?

Sir Crispin Tickell stressed the government's role in energy issues, since "energy is essential to a good management of society", and should not be ruled by the market. The policy should respond to the public interest. The UK government, after hesitating, finally decided to replace nuclear plants, leading to a rebirth of nuclear in the UK.

Helga Kromp-Kolb argued that sustainability ruled out nuclear energy, at least in its present form. Energy efficiency and renewables are more attractive in that they do not require the huge initial investment; they come in all scales and are adjustable to individual needs. On the other hand, externalities such as safety drive up nuclear power's costs. In the end, the ultimate solution to climate change is not to be found on the supply side, but in efficiency and new lifestyles. "We need to find a sustainable lifestyle accessible to all, which also curbs our demand for energy", she argued.

During the discussion, one member of the audience evoked the Chernobyl catastrophe and asked whether the cost of such a disaster was incorporated into the cost of nuclear energy. Jean-Pol Poncelet explained that the potential of a disaster is something that every professional in the industry is aware of and works to avoid at all cost. However, the Chernobyl disaster, he said, was not a nuclear disaster, it was a Soviet disaster. The Soviet Union was knowingly using a faulty technology. The government pushed ahead with this and provoked a disaster which could have been avoided. ■

Education and sustainable development

A growing subject

- *MODERATOR:* **ASIT K. BISWAS**, PRESIDENT, THIRD WORLD CENTRE FOR WATER MANAGEMENT
- **FRANCISCO J. LOZANO**, CO-ORDINATOR, SUSTAINABLE CAMPUS PROGRAMME, TECHNOLÓGICO DE MONTERREY, MEXICO
- **HIDEAKI ODA**, COUNCILLOR TO THE PRESIDENT, JAPAN WATER FORUM
- **BERNARD RAMANANTSOA**, DEAN, HEC, FRANCE
- **DAIGEE SHAW**, PRESIDENT, CHUNG-HUA INSTITUTION FOR ECONOMIC RESEARCH, CHINESE TAIPEI
- **DENNIS TIRPAK**, ASSOCIATE, INTERNATIONAL INSTITUTE FOR SUSTAINABLE DEVELOPMENT
- **THIERRY TOUCHAIS**, EXECUTIVE DIRECTOR, INTERNATIONAL POLAR FOUNDATION

Asit K. Biswas

Asit K. Biswas began by pointing out the difficulty in defining the concept of "education and sustainable development". There was no consensus about the meaning of this, even among experts. At a UN-organised forum 15 years ago, dedicated to education and development, the debate reached deadlock as a result of this confusion. The purpose of this session, he said, was to look at two major issues: the relationship of education and sustainable development, and how the two can be brought closer together.

For **Francisco J. Lozano**, it was the responsibility of higher education institutions both to teach practical aspects of sustainable development and to provide their students with a positive attitude towards ecological considerations. "Graduates from higher education will be the world's decision-makers; but they will also be citizens with concerns for their own communities and families", he said. This was why his own educational establishment joined technological and ethical studies to the courses dedicated to sustainable development activities. It is up to society to choose; and if it decides to take a path towards correcting ecological damage, it is crucial that the next generation hold a rounded view of both the technological and political aspects of sustainable development.

Bernard Ramanantsoa said sustainable development was now a driver of economic development, and this is why it has been included in HEC's curriculum. Society is at a turning point, and is quickly moving in the direction of sustainable development. At HEC, one of Europe's most successful business schools, he had been critical about the introduction of courses that incorporated sustainable development. "I believed few students would enrol, that the courses would be comparatively poor in educational quality, and that there would be no promising professional avenue for those who graduated", he said. "I was wrong on all counts." The courses are highly popular and his school now offers a specialised masters degree in sustainable development.

Environmental education has been on the curriculum of schools in Chinese Taipei since the 1990s, explained **Daigee Shaw**. "The efficient use of resources does not only make economic sense. It is a crucial issue for the long-term development of my country", he said. Chinese Taipei has adopted the "whole school approach" to environmental education, which is taught in social sciences, arts and humanity, languages, natural sciences, health and sports.

But "enhancing environmental perception, awareness and knowledge through education alone does not guarantee environmentally-friendly behaviour", he said. A survey carried out on university campuses found that students with fixed-fee energy bills failed to switch off electrical appliances, as opposed to those who paid based on consumption. On a wider scale, annual public opinion surveys in Chinese Taipei revealed that, throughout the 1990s, the environment was the primary concern for the majority of those polled until the year 2000. After this, economic development became the prime concern, probably a direct result of the South-East Asia financial crisis and a recession in Chinese Taipei. "This suggests that the choice between environmental protection and economic development relies fundamentally upon the overall state of the economy", he said.

Hideaki Oda focused on the issue of water, a word he said carried more meaning than in European languages, and which implies nature and its destructive and constructive forces. He recalled his own experience of a mudslide in Japan when he was called, as a government official, to a scene where seven people had been buried alive. "A surprising calm dominated the disaster site", he recounted. When he asked the mayor why this was so, the local official cited a proverb which says, "without human losses, the rainy season cannot come to an end". Hideaki Oda regretted that "even in 21st century Japan, flooding and high-tides were seen as unconquerable enemies".

Thierry Touchais

Bernard Ramanantsoa

"As long as such attitudes dominate, we cannot expect to achieve sustainable development in this region", he said. "We need long-term education over several generations to convince populations that flooding should be an enemy that we can fight against. Sustainable societies can only be maintained when all its members are aware of the reality, and this is called education."

Dennis Tirpak said the past decade had seen major advances in education on sustainable development. "But we need a full generation for change to come about and we do not have that time", he warned. He said that the private sector had a huge role to play in gaining precious time. "Advertising culture is largely about convincing people to buy high-polluting consumer goods", he said, and that had to change.

The culture of reviewing performance, in institutions or corporations, four or five years after the event also had to stop because the officials who need to be brought to account for results have often moved on by then. "Annual reviews make a big difference", he said. "Would it not be wonderful if the top companies in indices like the FTSE accepted regular reviews of their contribution to sustainable resources?", he asked. Sustainable development would be greatly helped through greater transparency of information, performance indicators and regular critical assessment of the actions of individuals, institutions and corporations.

Sustainable development and climate change are complex topics to teach, suggested **Thierry Touchais**. "They must be merged into existing curricula, and related to existing subjects such as physics, biology, economy and geography", he said. Scientists were increasingly motivated to disseminate information about their research, and there were interactive tools with which to bring complex subjects to the wider public, such as the Internet and travelling exhibitions. "People need references and indicators ... solutions will be the result of technology applications and human behaviour, both individual and collective", Thierry Touchais concluded. ■

Special session
Of ice, bears and markets in the silicon age

Delving into the Earth's archive

- *MODERATOR:* **GÉRARD NICAUD**, SENIOR REPORTER, *LE FIGARO*, FRANCE
- **ALAIN HUBERT**, CHAIRMAN, INTERNATIONAL POLAR FOUNDATION

(Left to right): **Gérard Nicaud and Alain Hubert**

The two poles of our planet are "archives of the climate's evolution throughout the millennia". Thus **Gérard Nicaud** introduced this afternoon's topic on climate change. But where is the climate heading? Can the recent changes be considered as merely a cyclical phenomenon, bound to happen regardless of human impact, or do we have a direct responsibility, and therefore, a potential antidote for the rise in temperatures?

Alain Hubert is in a unique position to provide insight into the vital importance of finding ways to confront climate change. The International Polar Foundation was established in 2002 with the aim of "informing and educating on the contribution made by research findings in the Polar regions to the understanding of the Earth as a complex system, and the role of climate change in this system". The Foundation also seeks to promote ways of living in the 21st century. One of his main achievements to date is the creation of the Princess Elisabeth research station in the Antarctic which collects ice core data and aims to be the first "zero emissions" station in the region.

Alain Hubert states that ice core and other research "has allowed us … to link human activities to the rapid changes in climate and environment". From there, he adds, "using mathematical models that are continuously improved by the use of observational data, we can now forecast accurately how the climate might evolve in the future, depending on the choices we make today".

Today, Alain Hubert says, we are in the "bargaining phase," kick-started with the Kyoto Protocol. Put simply, we are asking ourselves "what level of pain we are prepared to accept … . While we squabble over a 5% drop in emissions, the information we are getting is that a minimum of 60% in emission cuts might be needed to avoid irreversible change."

Alain Hubert asserts that market mechanisms are ill-equipped to deal with this imperfect system and will lead to distortions. Past attempts at allocating carbon credit by the European Trading System failed because of faulty estimates, he said, and a new package has been agreed upon by the Kyoto countries where auction will become an option. This will come into effect in 2012 and brings with it a whole new set of questions such as the fear of speculation or a monopoly by cash-rich players.

To make matters worse, a growing world population along with the emergence of developing countries increase demand in energy, and most of this is carbon-based. The gap between energy needs and production is a big problem. Renewable energies cannot solve this problem at this stage. Biofuels worsen the situation by bringing up a dilemma between feeding people and fuelling cars.

Alain Hubert claims that we must "barter prosperity today against survival tomorrow", but that "precious few" are ready for this today, it seems. Co-operation is important: "between countries, within countries, between government and the private sector, between different industrial sectors, between industry and academia, and between industry and the general public". ■

Ministerial Council Meeting 2008

(Left to right): **Christine Lagarde, Doris Leuthard and Angel Gurría**

This year marked the first time that the OECD Week, which comprises the annual Ministerial Council Meeting (MCM) as well as the OECD Forum, was held in the new OECD Conference Centre. The MCM, which focused on the theme "Outreach, Reform and the Economics of Climate Change", was chaired by the French Minister for the Economy, Industry and Employment, Christine Lagarde.

Christine Lagarde said in her summary that ministers showed strong appreciation of the OECD's positive contributions based on the high-quality policy advice, multi-disciplinary perspectives and peer-learning approaches which make the OECD uniquely placed to expand its engagement with new actors and collectively address key global challenges. She also explained that they had called for the OECD to continue to prioritise and focus on those issues where its comparative advantage could be fully exploited.

Christine Lagarde

Visit by US President George W. Bush

A few days after the closing of the MCM, the new OECD Conference Centre hosted its first visit by a head of state, the President of the United States, George W. Bush. Also present were First Lady Laura Bush, and US Secretary of State Condoleezza Rice.

On the 60th anniversary of the beginning of the Marshall Plan, President Bush delivered a speech at the OECD headquarters in which he praised the work of the OECD and the deep ties that linked America and France: "in this building were written the first chapters of European unity – a story of co-operation that eventually resulted in institutions like NATO and the European Union, and the organisation that carries the spirit of the Marshall Plan into a new century, the OECD".

In implementing the Marshall Plan, the OECD has helped bring Europe "back to life", promoting open economies and strong free market policies all across Europe. Since the Cold War ended, Europe has taken "inspiring strides toward a continent whole, free, and at peace".

(Middle to right): **Condoleezza Rice, George W. Bush and Angel Gurría**

Keynote speech

Reflections on the financial market correction

Towards better management, supervision and transparency

- *MODERATOR:* **FRANÇOISE CROUÏGNEAU** CHIEF INTERNATIONAL EDITOR, *LES ECHOS*, FRANCE
- **JEAN-CLAUDE TRICHET**, PRESIDENT, EUROPEAN CENTRAL BANK

(Left to right): **Angel Gurría and Jean-Claude Trichet**

As a long-standing friend of Jean-Claude Trichet, **Angel Gurría** introduced this keynote session by remarking that the ECB president had successfully navigated many a headwind, and the present financial turbulence was the latest one.

Jean-Claude Trichet's remarks are set out below.

"It is hardly surprising that the turbulence and volatility characterising the global financial system over the past ten months will be the focus of my remarks today – it is, after all, a matter that greatly concerns those present here. Both private and public institutions across the globe are still deeply immersed in tackling all the consequences that the continuing process of financial deleveraging is having on financial systems.

Public authorities issued clear warnings about the vulnerabilities that were building up on account of a significant under-pricing of risks in some segments of the financial markets already in early 2007. The ECB drew attention to these vulnerabilities through its semi-annual Financial Stability Review and equivalent warnings were largely communicated by other central banks and international institutions. Indeed, I had myself, as Chairperson of the global economy meeting of Central Bank Governors, regularly expressed the view, in 2006 and at the beginning of 2007, on behalf of my fellow Governors, that our judgement was that there was a significant under-pricing of risks in general in global finance.

Factors underlying the recent financial market turbulence

Already known to market participants and policy makers alike, well in advance of the turbulences, three broad factors reinforced one another in a way that almost nobody could have foreseen.

It is by now well-recognised that the first factor – and the driving force behind the substantial rise in financial leverage – was a significant excess of savings over investment in the global economy which, in time, drove an increasingly aggressive "hunt for yield". The ensuing surge of asset prices provided a spiralling, and temporary, environment of steadily rising financial market liquidity.

The period just preceding the current financial turbulence shares the characteristics of previous historical episodes, whereby there is a sudden and widespread recognition and recoil from underlying credits whose quality was in fact worsening for years. The various amplifiers that characterise modern financial systems which contributed to driving leverage up – the most notable being associated with the originate-to-distribute model of finance – also magnified the uncertainty about the extent of the imminent downturn, driving a massive run on riskier assets.

Jean-Claude Trichet

No account of the vulnerabilities that resulted in this period of turbulence is complete without identifying the ubiquity of interlinkages both within and across financial systems as a second important element. I share the view that modern financial intermediation has proven that it has the potential to effectively spread risk, and it has undoubtedly promoted economic efficiency and made capital available to productive sectors that would have otherwise not had access to any. Alas, the evolution of the financial system not only facilitated an expansion of financial instruments available to investors, it also seeded the fragility that later materialised in the unprecedented speed and reach of contagion during the unwinding of leverage.

The complexity in the "originate-to-distribute" financial intermediation model clearly placed a heavy burden, not only on the ability of investors to assess the risks they were taking but, more importantly, also on the risk management procedures of large financial intermediaries.

Abundant liquidity and financial complexity provided the driving force and landscape underlying both the process of financial leveraging and its eventual unwinding. The weaknesses unearthed include, as a third and essential element, financial players' incentive structures. Strictly speaking, the purpose of the financial system is to write, manage and trade claims on future cash flows for the rest of the economy, a purpose that increasingly fell victim to a game for fees, short-term profits, and arbitrating regulation. Indeed, most remarkably *ex-post*, the "shadow banking sector" did not have to set aside capital against the risk of things going wrong, as eventually they did when euphoria turned into sobriety.

The mechanics of the unwinding process are by now also well understood. Following one substantial shock to a single market segment (the US subprime-related credit), the process of adjusting risk positions in the financial sector was hindered by a – in some cases complete – breakdown in the price discovery process across instruments owing to the lack of understanding of the distribution and magnitude of risks underlying the various financial instruments. In turn, the unprecedented system-wide dry-up of liquidity driven by reductions in position-taking by major financial intermediaries fed back into the overall uncertainty, thus escalating measured risk and frustrating the very same efforts towards risk reduction. Indeed, the magnifying glass turned against those with business models most heavily relying on it, who found themselves confounded by the sheer magnitude and speed of the confidence implosion. That this set of institutions extends well beyond the banking sector is yet another reminder of the magnitude of the challenge that lies ahead.

Central banks' response to the liquidity problem

The Eurosystem makes a clear distinction between setting the monetary policy stance to maintain price stability and its liquidity decisions taken in the course of implementing this stance. This distinction serves to isolate signals of the monetary policy stance from the noise introduced by liquidity movements and volatility in very short term rates. Since the onset of financial tensions in August 2007, the actions of the ECB have remained in line with this principle.

In both "normal" and "turbulent" times, the primary aim of the Eurosystem's open market operations is to keep the overnight rate as close as possible to the minimum bid rate. During the recent period of turbulences some institutions, even if solvent, had difficulties accessing liquidity in the interbank market, and individual banks faced higher uncertainty about their liquidity positions, which led to volatile and somewhat unpredictable demand for liquidity. For this reason, open market operations aimed also at ensuring the continued access of solvent banks to

(Left to right): **Agustín Carstens, Angel Gurría and Jean-Claude Trichet**

liquidity and at smoothing the functioning of the money market.

In these circumstances, in order to continue steering very short-term interbank money market rates to the minimum bid rate, it has been necessary to supply liquidity in a way which has allowed credit institutions to fulfil their reserve requirements relatively early in the maintenance period. That is to supply a relatively large amount of liquidity early in the maintenance period and a correspondingly smaller amount later in the maintenance period, so that the total amount of liquidity over an entire maintenance period is unchanged. This so-called "frontloading" of reserves is different from the practice followed in normal times, when liquidity was supplied evenly throughout the reserve maintenance period, so that its supply was the same in the beginning and at the end of the maintenance period.

Moreover, liquidity on different days of a reserve maintenance period was no longer substitutable during the turbulence, and short-term interest rates were no longer necessarily linked to liquidity conditions on the last day of the maintenance period, tending rather to behave as if each individual bank perceived its distribution of liquidity shocks as strongly biased to the tight side, even if this was of course not the case at an aggregate level.

As a response to the changes in liquidity demand, the Eurosystem has implemented, since August 2007, several, but relatively minor, changes to the way in which it supplies liquidity, while maintaining its framework for monetary policy implementation unchanged.

First, as mentioned above, the Eurosystem has adjusted the distribution of liquidity supplied over the course of the maintenance period by frontloading the supply of liquidity. Note that liquidity is here defined narrowly as the banking system's current accounts held with the Eurosystem.

Roughly speaking, current accounts are equal to the difference between the outstanding amount of liquidity-providing open market operations and the liquidity-absorbing autonomous liquidity factors, which are those items of the Eurosystem balance sheet not under control of the central bank, the most important one being banknotes in circulation. Both in normal times and during the turbulence, the ECB has steered the aggregate amount of current accounts so that, on average, in the maintenance period, they are equivalent to reserve requirements.

Second, the Eurosystem during the turbulence has used somewhat differently its open market operations for supplying liquidity to the banking system. More specifically, (i) the use of fine-tuning operations has been more frequent than in "normal times"; and (ii) the amount of refinancing provided *via* longer-term refinancing operations (LTROs) was increased significantly, initially through operations with a three-month maturity and, since April 2008, also through operations with a six–month maturity. The amount of refinancing provided *via* the one-week main refinancing operations (MROs) was reduced correspondingly, so that the total amount of outstanding refinancing remained unchanged. This extension in the average maturity of refinancing operations contributed to reduce the future liquidity needs of the banking system and is assessed to have had, to some extent, a tempering effect on term interest rates.

(Left to right): **Jean-Claude Trichet and Angel Gurría**

Throughout the period of financial market turbulence, the ECB has promptly communicated to the market its liquidity policy intentions and explained its actions, which helped, reassuring the market on the readiness of the ECB to take adequate measures when necessary. As a result of this liquidity policy, the Eurosystem maintained control over short-term money market rates, as indicated by the fact that the average level of EONIA has remained close to the minimum bid rate, even if its volatility has at times been higher than in normal times. Moreover, the Eurosystem's liquidity policy has supported banks' access to liquidity and the general functioning of the euro money market, without the need to make, as mentioned above, any structural change to its operational framework for monetary policy implementation.

It is important to recall that, as the turbulence went on, central banks strengthened their co-operation, first through enhanced information exchange and collective monitoring of market developments and, later on, by co-ordinated steps to provide liquidity.

As an example of joint actions between central banks during the turbulence, in December 2007 the ECB agreed with the US Federal Reserve to grant loans in dollars with a maturity of one month to euro area banks, against collateral eligible for Eurosystem credit operations, in connection with the Federal Reserve new US dollar Term Auction Facility (TAF).

Key lessons and policy initiative

Substantial weaknesses in the functioning of financial institutions and markets were revealed by the episodes of turbulence, the high level of volatility and overshooting on a number of markets. The convergence of such diverse factors embodies the first "real magnitude" stress-test of today's global financial system. In retrospect, the shock to the global financial system following the burst of the Internet bubble was, all things considered, relatively modest. The challenge ahead lies in preventing the system from feeding on itself through a spiralling process of leveraging. Financial complexity is an inevitable consequence of increasingly complex and global economic activity, and we must find ways of working out the necessary checks and balances.

Various streams of work co-ordinated at the EU level aim at strengthening the supervisory and financial stability arrangements – including the introduction of a European mandate to national supervisors, the clarification and strengthening of the functioning of the committees of supervisors at the level of the 27 nations, the wider use of colleges of supervisors to reinforce the supervision of cross-border banking

(Left to right): **Jean-Claude Trichet, Angel Gurría**

groups and the approval of a Memorandum of Understanding on cross border co-operation in financial crisis situations between all relevant authorities in the EU (namely supervisory authorities, central banks and finance ministries). Similar reflections have been launched in the US.

Equally, or more importantly, has been the agreement at an international level on the appropriate methodology to identify the common lessons on a co-ordinated basis on both sides of the Atlantic as well as on both sides of the Pacific. The present episode of turbulence is a global phenomenon, and thus only a global response can be effective.

After the Asian crisis, at the initiative of the G7 finance ministers and Central Bank governors, the Financial Stability Forum (FSF) was created as the informal grouping where a synthetic diagnosis of the state of global finance could be carried out with a view to identifying the potential weaknesses affecting the international financial system and areas for improvement. The FSF "Report on Enhancing Market and Institutional Resilience" presents a number of policy recommendations to avoid the recurrence of similar financial stresses. It is remarkable that we have a consensus at the international community level on implementing these recommendations with determination and in line with the recommended timeline. The community of central banks will be particularly alert for these recommendations to enter into force. In this context, allow me to recall those recommendations that have been identified as immediate priorities:

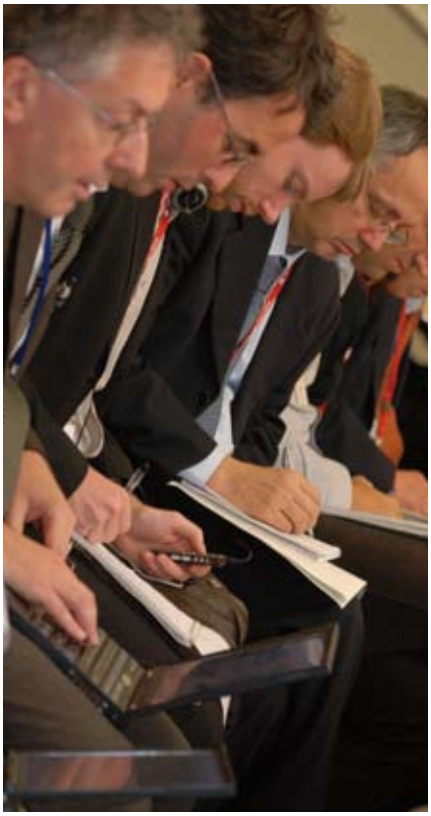
- Financial institutions should fully and promptly disclose their risk exposures, write-downs and fair value estimates for complex and illiquid instruments in their upcoming mid-year reporting. They should do so consistently with leading disclosure practices as set out in the FSF report.

- The International Accounting Standards Board (IASB) and other relevant standard-setters should take urgent action to improve the accounting and disclosure standards for off-balance sheet entities and to enhance guidance on fair value accounting, particularly on valuing financial instruments in periods of stress.

- Financial institutions should strengthen their risk management practices, including rigorous stress testing, under the support of supervisors' oversight. Financial institutions should also strengthen their capital positions as needed.

- By mid-2008, the Basel Committee should issue revised liquidity risk management guidelines and the International Organization of Securities Commissions (IOSCO) should revise its code of conduct for credit rating agencies.

I should also recall those main areas where important recommendations have to be implemented either by end-2008 or at the latest by 2009, namely revising capital requirements under Pillar I of Basel II (*e.g.* certain aspects of the securitisation framework), strengthening management and supervision of liquidity risk for banks, ensuring effective supervisory review under Pillar II, enhancing transparency and valuation, improving the quality of credit ratings for structured products, strengthening authorities' responsiveness to risk and enhancing robust arrangements for dealing with stress in the financial system.



Now, expeditious and effective implementation is of the essence. Both should be facilitated by the fact that many recommendations are made by those authorities and entities mandated to apply them.

Overall, I would like to underline two broad lines of actions which cut across many recommendations by the FSF.

Firstly, augment transparency, as it is not only necessary to make the markets more efficient and to optimise the allocation of capital, but it is also the best insurance policy against irrational herd behaviour and unjustified contagion in times of stress. The present turbulences have, once more, demonstrated that opacity regarding the stance of markets, financial instruments or financial institutions is a recipe for catastrophe.

Secondly, reduce pro-cyclicality, as it embodies two important features of global finance that are particularly adverse from a financial stability standpoint, namely an emphasis on short-term considerations and an asymmetry in the response given to booms and busts.

I expect that the planned work of the international community in this area will provide a welcome contribution to reducing the degree of potential pro-cyclicality associated with the functioning of global finance."

Finally, when asked by the moderator, **Françoise Crouïgneau**, whether, in light of recent events, he favoured tighter regulation in the euro area, Jean-Claude Trichet answered that he preferred to give decentralisation a chance, leaving it to the private sector to set the various benchmarks for best practice, but that if it proved incapable of doing so, only then should authorities intervene. He recommended better management, supervision and transparency to weather any future storms. ■

Keynote speech
New challenges in a new cycle

The global economy in mid-2008

- *MODERATOR:* **AGNÈS BÉNASSY-QUÉRÉ**, DIRECTOR, CEPII, FRANCE
- **RODRIGO DE RATO**, SENIOR MANAGING DIRECTOR, LAZARD

(Left to right): **Agnès Bénassy-Quéré and Rodrigo de Rato**

The recent financial market crisis has triggered a new economic cycle characterised by weaker growth and higher inflation, including significant upward pressure on commodity prices that could be with us for some time. While weaker economic growth has not affected all economies equally, higher inflation is a global problem.

Set out below are the remarks made by **Rodrigo de Rato**, the keynote panellist.

"In August 2007, the global economy entered a new cycle, characterised by the financial crisis in the industrial countries and massive rises in commodity prices.

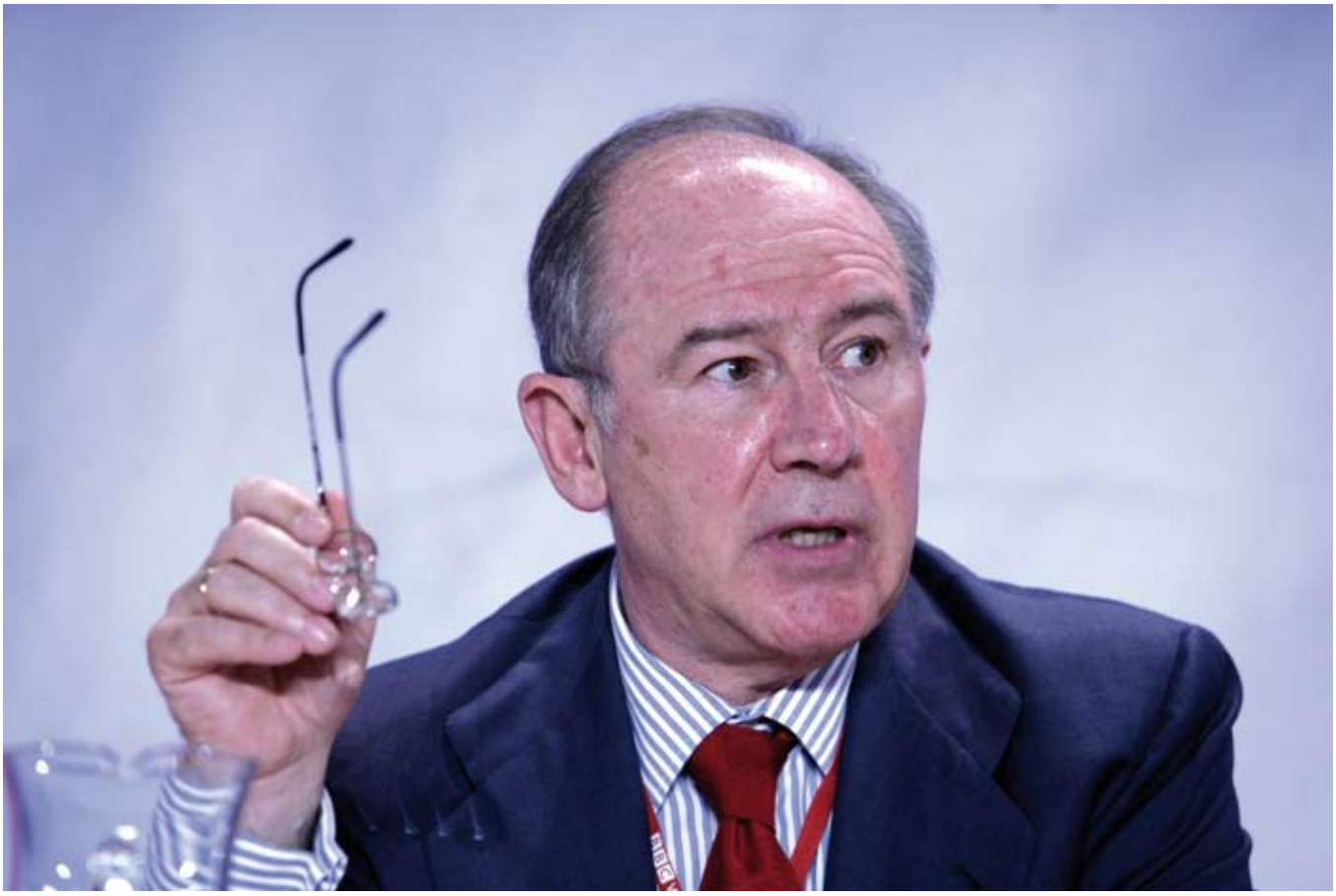
The emerging economies are today the most dynamic part of the global economy, having transformed themselves in recent years into the engines of growth. In the last few years, over 50% of world growth has depended on them.

The global imbalances between saving and investment, which characterised the recent phase, have narrowed slightly with the depreciation of the dollar. Despite everything, three-quarters of the global reserves of central banks are held by emerging countries. These imbalances exert pressure both on the financial economy and the real economy. Their persistence during a period of low global growth and upward inflationary pressures represents a threat to stability.

The slowdown in North America has not yet affected the economy as a whole, thanks to its great flexibility. However, the weakness of the housing sector continues and the effects of restrictions on and increased costs of credit will put pressure on the economy for the rest of the year. In other words, the real impact of the financial crisis remains to be seen as shown by the fall in the level of consumer confidence, the lowest in over fifteen years.

The difficulties in the financial sector have to some extent improved – as shown in volatility indexes and collateralised debt obligations (CDOs) – but the fear of counterpart risk continues, despite the recognition of some USD 300 billion of losses and 240 billion of recapitalisation (a third of it by sovereign funds). Some degree of restriction of credit is occurring in the United States and Europe, as a consequence of the abnormal function of the credit markets. The withdrawal of the banks from short-term financing may far exceed the injections of liquidity by the central banks.

The crisis has highlighted that the new financial system (which emphasised securitisation and spreading of risk) did not stand up to the test of the markets. This is shown by the purchase of companies based on debt. In the United States, the ratio of financial assets to GDP reached seven times that in the previous phase of the cycle. The spread between risk-free assets and junk assets fell from 500 basis points to 250.



Rodrigo de Rato

Despite this, the Fed's decision in the case of Bear Stearns, combined with the extension of the guarantees allowed by the Bank of England, marked a turning point.

In Europe, very like what happened in the United States, the first quarter of the year saw falls in the three categories of loans and lending conditions tightened.

Expansion continues in this region, led by Germany. Advance indicators and expectations suggest a slowdown during this year. In Europe, the countries which experienced property booms are being affected most. The Japanese economy is also holding up but the weakness in North America threatens its exports.

The emerging economies, some with the benefit of commodities and many by their better macro basics, are maintaining high rates of growth. So far, the credit crunch has been limited to international financing of companies. However, the slowdown in world trade has already been seen in the first quarter with growth of 4.5%. This is the growth that the World Trade Organization forecasts for the whole year compared with 5.5% in 2007 and 8.5% in 2006.

The reappearance of inflationary pressures, both in the emerging and industrial countries, accentuated by the huge increase in commodity and food prices, presents monetary policy with a dichotomy of objectives and just a single tool: interest rates. For many emerging countries, the rise in food prices is a bigger shock than the financial crisis.

This dichotomy is clearly visible in the state of the United States economy. Some emerging economies are faced with an appreciation of their currencies due to capital inflows which causes problems for their anti-inflation policy.

The weakness of the dollar and North American monetary expansion are not free of risk and have unequal effects on their trade partners, within and outside the dollar area. The rate differentials with the euro have driven the European currency to a historic level but currencies pegged to the dollar limit the effectiveness of domestic monetary policies.

In the majority of emerging economies, wage rises are putting pressure on inflation (wages rose by 22% in China). Expectations of inflation are clearly upwards, as reflected by the fact that the prices of imports in the United States had increased in April by 15.4% over the previous year. Financial speculation has changed in line with the operation of the commodities markets.

The combination of rising inflation and a weak dollar adds to the attraction of speculating in commodities as a financial asset driving prices up but also increasing

the risks of volatility, which then feeds back into inflationary pressures.

With regard to the soaring price of crude, global demand is holding up, thanks mainly to consumption in the emerging countries and final demand in the transport sector.

- 100% of the increase in demand in 2007 was due to consumption in emerging countries, where the maintenance of consumer subsidies is causing major distortions and growing fiscal costs. They should be replaced by some well-targeted social policies.

- China will continue to be the key to growth in consumption.

- Growing dependence on OPEC: non-cartel production and actual OPEC production has fallen by 600,000 barrels/day. This led Indonesia this week to announce it was leaving the Organisation.

- It is expected that the average price of a barrel for 2008 will be around 106 dollars and above 98 dollars in 2009 and 2010.

The historic levels of commodity prices have led to nominal increases in levels of investment but unevenly distributed, with several countries suffering falls in production and a strong resurgence of investor nationalism, with limits on foreign presence in industrial and emerging countries.

Financial investment in commodity indexes rose from USD 13 billion in 2002 to 260 billion in 2008. The lack of leadership from the major countries in liberalising trade in agricultural and manufactured products is standing in the way of a new round on liberalisation of investment. The recent abuses and weakness in industrial financial practice and regulation have opened the debate on the global financial model to identify and spread risk, which limits the credibility of European and North American authorities and regulators.

In the immediate future, the economy faces three major problems which need to be addressed with care:

- Inflationary pressures: how to reconcile combating price tensions with the weakness of the dollar and a general slowdown. Complications in the conduct of monetary policy.

- Global imbalances: these are far from returning to normal. They are a serious threat for the future. Moreover, some emerging countries must increase the flexibility of their exchange rate.

- Liberalisation of investment: this is a persistent problem. Need for new multilateral agreements: financial rules, trade, energy, climate change and investment." ■

Snapshots from OECD Forum 2008

Future challenges for the multilateral trading system

Securing the right agreement

- *MODERATOR:* **ANTHONY GOOCH**, DIRECTOR, PUBLIC AFFAIRS AND COMMUNICATIONS, OECD
- **SIMON CREAN**, MINISTER OF TRADE, AUSTRALIA
- **PHIL GOFF**, MINISTER OF TRADE, NEW ZEALAND
- **ANNE-MARIE IDRAC**, STATE SECRETARY, FOREIGN TRADE, FRANCE
- **ALEJANDRO JARA**, DEPUTY DIRECTOR-GENERAL, WTO
- **JAMES P. LEAPE**, DIRECTOR-GENERAL, WWF INTERNATIONAL
- **BEATRIZ LEYCEGUI GARDOQUI**, UNDERSECRETARY FOR INTERNATIONAL TRADE NEGOTIATIONS, MEXICO
- **NÉSTOR EDGARDO STANCANELLI**, DEPUTY SECRETARY, INTERNATIONAL ECONOMIC NEGOTIATIONS, ARGENTINA

Simon Crean

Over the last 50 years, the volume of trade has multiplied by 27 times, while at the same time, industrial tariffs have dropped from 40% to just 4%. **Anthony Gooch** opened one of the final sessions of OECD Forum 2008 with this impressive figure.

Since the creation of GATT, right up until the WTO, trade has been crucial in reducing poverty and creating wealth globally. But, as Anthony Gooch added, the recent turbulence in financial markets, which has been accompanied by a price spike in commodities, fuel and food, may endanger a consensus in the Doha Round. "For the pessimists", he remarked, "it is now or never. For the optimists, it is now or not for a long time."

Anne-Marie Idrac highlighted the WTO's achievement of important goals. For example, no country has thus far rejected WTO regulations, or questioned the relevance of the Doha Round. However, with regard to the current Doha Round, she felt that neither competition nor investment was being sufficiently addressed. Nor was there enough transparency in markets. The risk is that the WTO would suffer from "attrition" if it ignored food safety, human development, technological transfer, financial instability and climate change. Yet she expressed "total confidence" in the WTO and the multilateral trading system. What it must not lose, she said, is momentum.

The present Doha Round was also a concern for **Simon Crean**. Although the Round cannot include everything, he agreed that "multilateral trading was vital for prosperity". Over the last five years, growth in trade has been twice that of

output. However, in times like these, when protectionist policies threaten, multilateral agreements are ever more important. Yet if the current Doha Round fails to achieve all it has set out to achieve, protectionist policies may very well be the result. While acknowledging the importance of bilateral trade agreements, he pointed out that they could become a stumbling block to multilateral ones. Doha would provide a solid platform on which other bilateral agreements can be built, he argued. Finally, Simon Crean remarked on the importance of the changing nature of trade and the resolution of behind-border issues.

Evidence for the changing nature of trade is the way questions of sustainability are brought into the argument. For **James P. Leape**, trade and sustainability issues cannot be tackled separately. He came down strongly against certain subsidies, particularly of the energy and fishing sectors – support to the latter means there are two or three times more boats than there would be otherwise. Sustainability, he said, was the only neutral basis on which good and bad subsidies could be discriminated. He added that the WTO is not in a good position to define sustainability and that, to set international norms, it should partner with expert groups such as the FAO and relevant climate change agencies in the UN.

Beatriz Leycegui Gardoqui shared her fellow panellists' views on the tremendous contribution of the multilateral trading system to global growth and prosperity, and also the serious challenges currently facing the WTO, notably the rising cost of food and oil, and turbulent markets. She lamented that, in times of crisis, protectionist tendencies often undermine open markets. She underlined the fact that developing countries may need to make structural reforms to benefit from the opening of their markets, which would contribute to lowering greenhouse gas emissions through foreign competition and energy-effective products imports. She pointed out that Mexico has proposed the creation of a world fund for climate change.

Alejandro Jara

(Left to right): **Phil Goff, Anne-Marie Idrac and Anthony Gooch**

Subsidies came under fire again from **Phil Goff**, who criticised the use of certain "perverse" subsidies provided by developed countries that damage the development opportunities of poorer ones. He reminded the audience that his country, New Zealand, was once the most subsidised country in the world; today it grants none. In response to criticism about leaving a big "carbon footprint" by transporting livestock from New Zealand or Australia to Europe, he pointed out that, in fact, it produces three times less CO_2 than localy produced meet, even taking into consideration the fuel used in flight. There are numerous reasons, including the use of greener technologies, New Zealand's pasture rather than grain-fed livestock. Grain feeding requires energy-intensive production. In light of these remarks, Phil Goff urged the trade community to address the problem of climate change more directly. If Doha negotiations are to succeed, "flexibility must be shown" by all parties. He also cautioned against a proliferation of bilateral agreements, which could end up as a "spaghetti bowl" that hinders multilateral agreements, he said.

Néstor Edgardo Stancanelli echoed other panel members' concerns over the present Doha Round. Ironically, agreements on agricultural products seem to be progressing while those of NAMA (Non-Agricultural Market Access) have all but come to a halt. The trade-related negotiating ability of several national cabinets has been reduced and the flexibility necessary to conclude a successful trade agreement is lacking. Although the Argentinian government has made several proposals to enhance trade, many of them have been rejected by larger, developed economies. He concluded that flexibility was essential to ensure the success in the coming round of trade negotiations.

The WTO's **Alejandro Jara** said that a great deal of progress had been made in the multilateral trading system, although protectionism has all but disappeared. Subsidies and dumping are still problematic issues and transparency needs to be improved. Sanitary problems and poor infrastructure were also obstacles: without these, he said, what good are the agreements? ■

Sovereign wealth funds

A positive force?

- *MODERATOR:* **CAROLYN ERVIN**, DIRECTOR, FINANCIAL AND ENTERPRISE AFFAIRS, OECD
- **XIQING GAO**, PRESIDENT & CHIEF INVESTMENT OFFICER, CHINA INVESTMENT CORPORATION
- **JEAN-DANIEL GERBER**, STATE SECRETARY FOR ECONOMIC AFFAIRS, SWITZERLAND
- **KRISTIN HALVORSEN**, MINISTER OF FINANCE, NORWAY
- **GIANDOMENICO MAGLIANO**, DIRECTOR-GENERAL, MINISTRY OF FOREIGN AFFAIRS, ITALY
- **JEAN-PAUL VILLAIN**, HEAD, STRATEGY UNIT, ABU DHABI INVESTMENT AUTHORITY

(Left to right): **Jean-Daniel Gerber, Kristin Halvorsen and Giandomenico Magliano**

Sovereign Wealth Funds (SWFs) have become a "hot topic", but is there any reason for new rules and regulations? **Carolyn Ervin** provided a quick overview of SWFs, some of which have been around since the 1950s. Today, there are about 40 SWFs controlling between USD 2.5 trillion and USD 3.5 trillion in assets, with the 7 largest funds managing about USD 2 trillion. But Carolyn Ervin warned that SWFs cannot be considered a homogenous group. Some seek to maximise financial returns, others serve stabilisation policies, others seek a fair distribution of returns over time; some are managed internally, others externally; some are active investors, others are passive ones.

They certainly bring some benefits, argues Carolyn Ervin, by helping to recycle worldwide savings, for example, or helping recapitalise banks during the recent credit crisis. Nevertheless, two main problems have become associated with SWFs in recent years. First, they are big and becoming bigger; and second, many in the West still harbour suspicions that some have covert political strategies. "Are these concerns valid?", she asks. Not in the view of the OECD which has established guidelines based on the principle of non-discrimination. SWFs are not a special case and should be treated like any other investor.

Xiqing Gao is the head of one of the youngest but most talked-about SWFs in the world, the China Investment Corporation. He presented a humorous but compelling defence of the fund's strategy, and lamented that it was often unfairly portrayed as a "new world menace". "We are not much different to other SWFs, except our lack of expertise; our strategy is entirely passive and we want to be responsible, transparent, and play by the rules", he pleaded. He further explained that the fund consistently refuses to accept board appointments in the companies in which it invests, on the grounds that it is too inexperienced, and simply disinvests if it disagrees with the strategy of a firm.

Nonetheless, Xiqing Gao, as a former member of the regulatory authorities, understands the concerns the fund generates. This is why he is such a firm advocate of transparency. "We will be as transparent as is commercially viable and will not provide specific details about what we are going to do; but we will disclose what we did last year, just as our Norwegian friends recommended us to do", he said. Xiqing Gao insisted that the China Investment Corporation does its best to meet the sometimes conflicting requirements of the supervisory authorities and those of a mutating and demanding world. He believes that the OECD principles are good and that SWFs are much easier to regulate than hedge funds. He pleaded for patience and understanding: "our government has not been very transparent for the past 5 000 years or so, but we are trying and learning – still, we do not have horns growing out of our heads."

Xiqing Gao

Jean-Daniel Gerber began his intervention by justifying Switzerland's presence on a panel discussion about SWFs, pointing out that it is the 10th biggest exporter of capital in the world and has recently become one of the most important importers. Indeed, it was at the centre of two major SWFs' strategies this year, associated with the capital requirements of banks hit by the subprime crisis. This generated a debate in Switzerland about whether it needed to change its legislation in response to SWF flows into the country, and the possible strategic nature of these investments.

After thorough deliberations, the government reached a simple answer to the question: "no". Any legislative changes would require a definition for "strategic firm", not an easy task. Also, investment regulations already exist, and there is no justification in discriminating against SWFs. Jean Daniel Gerber conceded that, as many developed countries have tended to privatise, it might appear judicious to protect newly private firms from the ambition of SWFs. But, in principle, regulations to protect such companies are already in place.

Kristin Halvorsen explained how the Norwegian government channels its oil and gas revenues into its SWF, the Government Pension Fund-Global (GPFG), which now manages about USD 400 billion in assets. "I believe transparency is the key issue in the debate on SWFs." With the GPFG absorbing the equivalent of 15% of Norway's GDP, "transparency is essential for public support. These are the savings of the Norwegian people".

Kristin Halvorsen detailed the strict guidelines under which the GPFG operates, including an ethical code, and the purely financial nature of its investments. "We are financial investors, not strategic investors." The fund has shareholdings in more than 7 000 companies with an average stake of less than 1% and a maximum permitted ceiling of 10%. Kristin Halvorsen also sought to emphasise that SWFs must demonstrate that they are not a threat and believed there was absolutely no evidence of a hidden political agenda. The minister also stressed the importance of a well-working free trade economy, saying that "we should not delude ourselves when it comes to protectionism".

Giandomenico Magliano explained how the global economic context has changed with the opening up of markets and, as a result, some actors have increased their clout. Is this a reason to create new rules? Giandomenico Magliano does not believe so. Indeed, he concurred with previous speakers and said that SWFs need to be regarded as normal investors, and meet the established investment regulations in recipient countries. Financial regulations should aim to increase systematic stability as a whole, "which is a public good", and not be targeted specifically at SWFs. He also highlighted the role that SWFs can play in correcting balance of payments disequilibria and providing recipient countries with much-needed funds, not-least to finance the huge energy-related investments that will be required in the next 20 years.

Jean-Paul Villain

Jean-Paul Villain is Head of Strategy of the United Arab Emirates State-controlled fund that was founded in 1976 in order to reinvest the country's massive oil revenues, which were considered too large to invest fully in the domestic market. Today, 80% of the fund's assets are managed by external portfolio management companies, but the strategy is determined in-house. The government decided to establish the fund as an independent entity in order to recruit external experts and risk-takers, who would not otherwise have become public workers.

As regards transparency, Jean-Paul Villain does not believe that everything should be disclosed, otherwise the strategy would vanish. But in 32 years of operation, the fund has always respected local legislation, and had successfully built relationships of trust with recipient States. He explained how the fund has progressively diversified into new asset classes, but always followed strict internal regulations and decision-making processes.

During questions from the floor, the Vice-President of the Indian Finance Institute asked if there were any bottlenecks impeding the flow of SWFs. Jean-Paul Villain replied that there were not many, and added that we should not confuse the State and its wealth funds.

Another participant questioned whether the passive investment strategies preferred by SWFs would result in deficient monitoring of management in target firms. Kristin Halvorsen answered that this was not their role and that, in any case, it would be impossible to monitor the management of small stakes in 7 000 companies. ■

Financing infrastructure

Bridging the funding gap

- *MODERATOR:* **MICHAEL OBORNE**, DIRECTOR, ADVISORY UNIT ON MULTIDISCIPLINARY ISSUES, OECD
- **AGUSTÍN CARSTENS**, SECRETARY OF FINANCE AND PUBLIC CREDIT, MEXICO
- **ANDREW HUNTER**, HEAD, MACQUARIE, EUROPE
- **RICHARD LAVERGNE**, SECRETARY-GENERAL, OBSERVATOIRE DE L'ÉNERGIE, FRANCE
- **PIERRE LORTIE**, SENIOR BUSINESS ADVISOR, FRASER MILNER CASGRAIN LLP (MONTREAL), CANADA
- **HAMISH MCRAE**, ASSOCIATE EDITOR, *THE INDEPENDENT*, UNITED KINGDOM

Michael Oborne opened the discussion by underlining the essential role that infrastructure plays in promoting economic growth and prosperity as well as its capacity to "mobilise resources that enable us to innovate". But he also drew attention to the growing gap between projected worldwide infrastructure requirements and public funding capacities. This gap, suggests Michael Oborne, can be largely attributed to rising social expenditure associated with public healthcare and pension costs. But other factors, such as climate change, population growth, economic expansion and globalisation, are also relevant and will be "an aggravation to infrastructure capacity". This is true of both developing countries and developed economies.

How can governments bridge this burgeoning financing gap? For Michael Oborne, the main options are to increase government revenues by diversifying public revenue sources (such as increased road tolls), creating more and better public-private partnerships, and introducing better demand management.

For **Andrew Hunter** who brought the private sector perspective to this debate, infrastructure fosters growth by providing services such as water and electricity, access to schools and markets, and facilitating trade. But public funds, the main source of infrastructure investments, are dwindling due to ageing populations, while the private sector, which views infrastructure as an opportunity to secure long-term investment assets, is becoming increasingly enthusiastic: "the growing stock of pension savings needs to find a home", and infrastructure investment provides an opportunity to match long-term liabilities with long-term assets. Partnerships between the public and private sectors are therefore logically gaining momentum. In order to ensure profitability and assuage understandable public concerns about private sector involvement in key infrastructures, it must be done under "strong, transparent and consistent regulation".

In response to a question from the floor, Andrew Hunter mentioned that while debt levels are high in the initial stages of a project, the prospect of stable cash flows brings down the ratio over time and is not of long-term concern. As for the best financing structure practice, he suggested that there was no one ideal method but that it depended on the project: public-private partnerships may be suitable for projects that are not economically feasible, concession mechanisms for those that are, while more regulation is required for projects of a monopolistic nature.

Agustín Carstens echoed the importance of infrastructure in developing countries such as his own, and provided a brief explanation of how Mexico was addressing infrastructure investment after years of neglect. In order to be able to effectively deliver social services and promote investment, the current Mexican government recognised that traditional financing methods were limited. The government thus pledged, at the time of

Andrew Hunter

its fiscal reform of 2007, that half of all additional tax revenues would be invested in infrastructure. Moreover, the reform of the public pension system, and the creation of individual pension accounts, helped create a large and stable capital pool necessary for large and stable investments. In order to entice more private sector involvement, the government also established the National Infrastructure Fund, charged with the financing and management of public infrastructure, and freed from the constraints of general budget management.

A member of the audience asked whether the government should not use more funding opportunities from banks such as the World Bank to avoid bottlenecks in infrastructure investment. Agustín Carstens replied that such money was not free, but that it required creating "a lot of fiscal breathing space". Another question from a student from Queens University, Canada, suggested that infrastructure investment was focused too much on highways and ports at the expense of sustainable investments such as alternative energy. Agustín Carstens replied that the "focus on investment is diverse" and "alternative energy is just as important in developing countries".

Richard Lavergne spoke of the huge investments required in future energy provision and the consequent need for a "cultural revolution" in our approach to climate change and sustainable development. For this, five key stakeholders must be brought together to articulate a policy response: government, business, local authorities, consumers and environmental NGOs. "There needs to be a national consensus on long-term goals." One of the main problems he identified is the "NIMBY syndrome" – "not in my backyard", with local opposition to big projects often persisting for decades and disrupting long-term planning. This means that governments need to put in place systematic analyses to forecast market risk and prepare solutions.

For **Pierre Lortie**, there are four driving forces in the sudden increase in demand for infrastructure: the rapid growth of large economies (Brazil, China, India, Indonesia), the need to improve dilapidated infrastructure (Eastern Europe), the need to maintain competitiveness in a context of rapid globalisation (the Panama Canal), and the urgent need to renew or replace old infrastructure (the West). In his opinion, there are two main public policy issues: "how to invest efficiently without undermining public funds, and how to ensure the upkeep and consistent maintenance of infrastructure".

Indeed, constraints in public finance have exacerbated the problem of construction delays, cost overruns and maintenance deferrals. Recent studies in the UK, for example, showed that 73% of infrastructure projects ran over budget or were completed later than anticipated; while in Australia, cost overruns averaged 40% and 24% of projects were late. According to Pierre Lortie, the advantage of public-private partnerships is that these risks are transferred to the private sector from the outset, and this explains why they have grown so rapidly in countries like the UK. "These partnerships bring synergies, more innovative designs, better service for the public, more effective use of capital, and more on-time, within-budget projects."

Hamish McRae pointed out the similarities between the infrastructure construction boom being enjoyed by many developing countries today and Europe at the end of the 19th century. But the challenge, he suggested, will be to do it better: higher standards, lower carbon footprint, and not repeating the error of "deserting densification". Large quantities of savings are also available, but there are still question marks over how these savings can be mobilised because, unlike in the 19th century, inflation is rampant today. This may undermine the use of traditional techniques to tap the savings of the new middle classes and often require the use of innovative financing methods. Countries with low savings will need to be even more innovative and work to diversify their financing resources.

With regard to the relationship between markets and regulation, Hamish McRae insisted that regulations, while necessary, are often a blunt instrument that tend to obey "the law of unexpected responses" – "when my back is against the wall, I prefer markets … regulators have their political careers to think about".

In response to questions from the floor, Pierre Lortie and Andrew Hunter both agreed that private shareholders in a public-private partnership should not be bailed out by their public partners if a project goes sour. Finally, Hamish McRae said that large, long-term projects are prone to changes in the electoral cycle – "the only discipline on politicians is their long-term reputations". ■

Global innovation, IPR and growth

Rewarding ideas?

- *MODERATOR:* **JOHN THORNHILL**, EDITOR, EUROPEAN EDITION, *FINANCIAL TIMES*, UNITED KINGDOM
- **ALISON BRIMELOW**, PRESIDENT, EUROPEAN PATENT OFFICE
- **LAURENT COHEN-TANUGI**, CHAIR, "EUROPE IN THE GLOBAL ECONOMY" TASK FORCE, FRANCE
- **SOUMITRA DUTTA**, DEAN OF EXTERNAL RELATIONS, INSEAD, FRANCE
- **PEDRO LICHTINGER**, PRESIDENT, EUROPEAN PHARMACEUTICAL OPERATIONS, PFIZER
- **PIER CARLO PADOAN**, DEPUTY SECRETARY-GENERAL, OECD

(Left to right): **Laurent Cohen-Tanugi, Soumitra Dutta, Pedro Lichtinger and Pier Carlo Padoan**

This session highlighted the fact that encouraging innovation is a complex problem, made even more challenging by the statistical problems associated with measuring innovation and gauging the results of policy. Generally, however, participants agreed that individual governments needed to adopt more ambitious and wide-ranging policies tailored to suit their own economies. Rather than simply focusing on the high-tech sector, as has often been done in the past, the future challenge will be to address the educational, social, managerial, regulatory and labour market aspects of innovation policy.

Pedro Lichtinger

Soumitra Dutta discussed the reasons for the business school world's recent switch in emphasis from analysis of corporate structures to a focus on innovation. Along with globalisation, he pointed to two main drivers behind this process. The first is the western world's fading monopoly on new ideas as rapidly-growing emerging economies catch up, or even take over. The second driver is technology, which is advancing at an exponential pace.

These rapid changes present a number of challenges for governments and businesses, including providing good governance, which correlates strongly with prosperity. Finally, successful innovation requires human talent, which must be attracted and retained through innovation-friendly capital markets and support for a risk-taking and innovative culture.

Alison Brimelow underlined that intellectual property rights (IPR), while important, are just one among many factors that influence innovation. Others include development of human capital, political stability, and a genuine free market. All of these variables must be evenly balanced in order to create a suitable environment for innovation. Moreover, while having a patent system in place is important, governments need to make sure that they work properly.

However, this is quite a complex issue and Alison Brimelow expressed a worry that the mere counting of patent applications as a way of measuring innovation would be misleading: "more does not mean better", she said. In particular, early filing of patent applications might be used as a way to block critical innovations by establishing monopoly positions, leaving demand for more effective products unsatisfied. Backlogs in applications can also be a problem. Patent regimes should be "fit for purpose", with greater emphasis placed on the quality of the regime.

Focusing on the biopharmaceutical sector, **Pedro Lichtinger** noted that his industry is increasingly focused on partnerships and collaboration between the public sector, private enterprise and the academic and research communities. Innovation is no longer just about the R&D process: there is innovation in clinical trials, in seeding

Alison Brimelow

science education, in managing technology transfers, in fostering more consumer choice and in exploring novel approaches to marketing post-registration.

Significantly, big players will not necessarily dominate this field. He cited Pfizer's own "incubator" programme, where novel research by small companies is supported through the cost-effective pooling of good ideas with Pfizer's extensive physical infrastructure and human resources. The Innovative Medicines Initiative supported by industry and the European Union is another example. Pedro Lichtinger also pointed to the need for a better understanding among policy makers on innovation as a process of "continuous improvement." Industry is under significant pressure from government payers to define how big an "incremental" improvement in therapy should be before it can be called an "innovation". Finally, successful innovation will require payer policies that allow for appropriate pricing of new medicines as well as protection of intellectual property rights – in fact, a predictable patent term is even more important for smaller companies than for "big pharma" due to the mounting cost of drug development.

According to **Pier Carlo Padoan**, the OECD is devising an innovation strategy to provide economies and companies with a framework conducive to innovative practices. The global scene is expanding rapidly and new players are asserting themselves. As information opens up, there is an increasing need for a collaborative approach to working with outside partners. Attention should also be paid to the non-technological aspects of innovation, chiefly the social and managerial dimensions.

The challenge of measuring innovation lies in evaluating the inputs rather than just focusing on the final results. Pier Carlo Padoan also recommended supporting creative communities by developing effective education systems that "go beyond national boundaries". In addition, putting in place "soft intellectual property rights" could encourage the market for knowledge and hence stimulate innovation. But there is no "one size fits all" innovation strategy, rather several combinations of different variables, and these must be addressed across all departments.

Laurent Cohen-Tanugi gave a short review of the European response to the knowledge economy challenge, originally conceived to bridge the knowledge gap with the US. This "Lisbon process" has unfortunately proved overoptimistic. The target was to raise R&D expenditures to 3% of GDP by 2010, but spending has in fact declined slightly. One problem is that the target depends on EU members' goodwill in pushing through necessary measures. Some have done well – generally speaking the smaller member countries – in part through significant reforms of their education and knowledge-economy policies.

The future challenge for the EU will be to face the intensifying competition from emerging economies that are putting increasing effort into innovation. The EU's response should be to develop a more broadly-based and ambitious strategy that focuses not just on the high-tech sector but also incorporates aspects of educational, social, labour market and other policy areas.

John Thornhill launched the discussion with participants from the floor by addressing two main questions to the panel: how do we measure innovation and how should we restructure organisations in order to encourage innovation? On the issue of measuring innovation, Alison Brimelow stressed the importance of "going beyond the numbers game" and paying close attention to broader indicators of performance, such as the development of successful brands and trademarks and educational performance. Addressing the question of organisational structure, Soumitra Dutta pointed to the invaluable inputs of employees and the importance of developing the right culture to foster innovation. There is also a need to celebrate success, which is often a weakness in Europe. Laurent Cohen-Tanugi also underlined the importance of obtaining the correct mix of educational policies.

A participant questioned whether policies such as those aimed at curbing public healthcare spending in developed countries might hinder innovation. Pedro Lichtinger agreed that restrictions on access to new medicines through blunt instruments like reference-based pricing penalised innovation by contributing to system-wide inefficiencies – and actually raises the costs of other health services. Soumitra Dutta also noted that, in some circumstances, the need to control costs could actually spur innovation. For example, the development of cheaper drugs might open up the large potential market for healthcare in developing countries.

Asked to identify the main factors behind the sometimes lengthy path from innovation to practical application, Pedro Lichtinger listed bureaucracy, lack of access to capital and distrust between public and private institutions. Laurent Cohen-Tanugi added that delays sometimes stemmed from social attitudes towards risk, for example, in relation to health and safety concerns. ■

Education, literacy and the Harry Potter effect

Japanese wizardry

- *MODERATOR:* **BARBARA ISCHINGER**, DIRECTOR, EDUCATION, OECD
- **YUKO MATSUOKA HARRIS**, PUBLISHER AND TRANSLATOR OF THE JAPANESE HARRY POTTER BOOKS, SAY-ZAN-SHA PUBLICATIONS, LTD.

(Left to right): **Barbara Ischinger and Yuko Matsuoka Harris**

Japan has successfully exported *Mangas* and game consoles to the West, and in a reverse flip of culture, Japanese publisher **Yuko Matsuoka Harris** explained the trials and tribulations of introducing a very Anglo-Celtic tale to the broad Japanese public.

While travel on a broomstick might be sustainable, if not always stable, the session ignored the carbon footprint of the worldwide Harry Potter "industry", currently estimated to be worth USD 15 billion, to focus rather on the issues of translating the hugely successful saga, which is now published across the world in 65 languages.

Cultural differences can create enormous problems for translations, ranging from descriptions of gesticulations to names that produce anagrams for convoluted messages. A slide-show that accompanied the discussion included a photo of a spectacularly thumb-marked Potter book, spiked with sticky post-note interrogations on almost every other page, testifying to the long labour of transforming the work into Japanese without losing any of the original magic.

A former professional conference interpreter, Yuko Matsuoka Harris inherited a small publishing house in Japan from her late husband. It was shortly after his death, during a visit to the UK, that she first heard of Harry Potter, months after the publication of the first book in the series, and before the character had met with global interest. A friend suggested that this was a book worth the risk.

After two months of negotiations, she won the publishing rights for the Japanese translation of "Harry Potter and the Philosopher's Stone". It took countless long days and late nights, and a lot of help from friends, to reach publication a year later.

Asked what the main challenges were, Yuko Matsuoka Harris cited the frequent descriptions of body language, like "goggling eyes" and "thumbs-up", which are unknown in Japan. Names were also an issue, for example, Professor Sprout, who teaches plants. He finally became Professor Soporoutu. Food names, too, were a problem. She recalled stumbling over lemon sherbet – until a British friend sent her a kilo of the stuff. Then there were all those anagrams.

But the book was published a year later. Within a month, and with no advertising, 30 000 copies flew off the shelves. The figure spiralled to 500 000 after just six months. Ten years and seven books later, total sales now exceed five million.

Yuko Matsuoka Harris said that 50% of Japanese Potter fans said the book had encouraged them to read more literature in general, and Potter readers among children claimed they received higher marks at school. She was convinced the success of Harry Potter had encouraged children to read more, and not just because Harry's cousin Dudley, who spends most of his time watching television, is portrayed as obese and mean. ■

The OECD Forum 2008 would like to thank the HEC students for their valuable contribution in helping to produce the Forum Summaries and these Highlights

Health, innovation and the economy

Medical benefits

- *MODERATOR:* **IAIN GILLESPIE**, HEAD, BIOTECHNOLOGY, OECD
- **CRISTINA GARMENDIA**, MINISTER OF SCIENCE AND INNOVATION, SPAIN
- **JOHN P. HEARN**, DEPUTY VICE-CHANCELLOR, UNIVERSITY OF SYDNEY, AUSTRALIA
- **JOHN ROTHER**, GROUP EXECUTIVE OFFICER, POLICY AND STRATEGY, AARP, UNITED STATES
- **MICHEL VOUNATSOS**, PRESIDENT, MSD-FRANCE
- **ELAINE M. WOLFSON**, FOUNDING PRESIDENT, GLOBAL ALLIANCE FOR WOMEN'S HEALTH

(Left to right): **Iain Gillespie and John P. Hearn**

Globalisation helps spur innovation, panellists agreed, but it brings divisions as well. Examples abound in areas such as biotechnology, stem cell research and intellectual property right (IPR) protection. How to strike a balance in IPR protection to protect medical breakthroughs while spreading knowledge and products remains a concern.

Iain Gillespie kicked off the session by giving a brief definition of innovation and then applying it specifically to healthcare. He focused on one of the main purposes of the OECD: maintaining the sustainability of innovation in the healthcare sector. This has become an issue of increasing importance due to the rising costs of healthcare innovation which, in turn, dramatically impact the delivery of healthcare services.

Cristina Garmendia presented Spain's health innovation policies. This involves a sharp increase of research expenditures aimed at accelerating research and development, particularly by fostering public-private partnerships, investing in infrastructure and human capital, and developing international co-operation. The main objective of this is to place Spain at the top of the bio-science industry.

Unpredictability is a major characteristic of bio-medical research, according to **John P. Hearn**, especially the pace of innovation. This is most evident in the relatively young field of stem cell research. As he stressed the fundamental changes in healthcare that stem cell research potentially offers, John P. Hearn also pointed out the ethical issues pertaining to the usage of embryonic, adult or the newly developed induced stem cells. Taking into account the high costs associated with this new technology, he drew up the issue of equity in healthcare. This naturally leads to the issue of regulations that might guarantee minority opinion as well as preventing the misuse of this controversial technology.

John Rother said that people should retain their independence as they become older, as this would be beneficial not only for individuals, but to society as a whole. He highlighted that healthcare systems should cover everyone and stressed the importance of healthcare reform that, among other things, finds better ways to co-ordinate chronic care. The United States is now looking in the direction of the comprehensive healthcare systems implemented in western Europe. Such initiatives involve the "medical home", which caters for chronic patients, as well as innovative technologies such as electronic health records. This all helps achieve 100% coverage while increasing efficiency.

Michel Vounatsos described investment in health as a virtuous circle leading to economic growth and prosperity; productivity, employment, investment attractiveness and income all depend on good health. But ironically, technological progress that led to both greater health and wealth entails health problems of its own. Social and economic trends accompanying productivity-enhancing technological change led to a sedentary way of work, making a physical effort a costly endeavour competing for limited free time. And with more women in the workforce, time required for food preparation was also at a premium, especially when food supplies

became plentiful due to efficient production that brought down the price of nutrition relative to other goods. Strong economic incentives have thus "conspired" to guide behaviours that cannot be easily changed; obesity and related diseases have become rampant in the developed countries and are accelerating in the emerging economies. Since this represents an extremely high cost for both patients, their families, and the national economies, Michel Vounatsos has argued for the undiminished even pressing need for more medical innovation in parallel with the attempts to change behaviours.

Women's health has been chronically under-serviced, **Elaine M. Wolfson** pointed out. This is largely a result of the disregard for unpaid women's labour. Women seem to be especially susceptible to diabetes, with 73 million female sufferers worldwide compared to the 62 million males. Diabetes is not strictly a rich-person's disease; malnourishment also has a big impact on diabetes. Some 30% of pregnant Indian women contracted type-II diabetes. This is especially problematic since it can be transmitted to a foetus during pregnancy. The phenomenon requires a careful assessment of current research in diabetes.

Iain Gillespie asked the panel how they would balance new concerns and benefits of medical research. John P. Hearn responded by citing statistics, indicating that less than 1% of initial research items become final products. But he also added that there were new fields to venture into, such as stem cells, eastern medicine and nano biology. Michel Vounatsos underlined the R&D productivity challenge and agreed with John P. Hearn on the issue of hardships in releasing new products on the market.

Cristina Garmendia

In response to Cristina Garmendia's inquiry concerning R&D strategies, Michel Vounatsos mentioned the shift in focus from an all-internal process to multilateral alliances and public-private collaborations in creating new products.

A student from the US brought up the issue of the equitable diffusion of high-tech healthcare innovations including stem-cell research to poorer countries. This was answered by John P. Hearn who emphasised the stem-cell "product" as opposed to "therapy", the former being more accessible than the latter. But he also reminded us of the importance of low-tech solutions to healthcare problems. Both low-technology solutions and big pharmaceuticals were both important in improving healthcare standards.

The Gates Foundation and Warren Buffett's contribution were cited as examples of new funding methods for healthcare innovation following an inquiry from a representative of the Global Forum for Health Research. John Rother added to this by commenting on the importance of focusing on public health service rather than trying to implement expensive western systems. ■

(Left to right): **Michel Vounatsos and Elaine M. Wolfson**

Education: A good school for every community

Closing knowledge divides

- *MODERATOR:* **BARBARA ISCHINGER**, DIRECTOR, EDUCATION, OECD
- **JOHN BANGS**, ASSISTANT SECRETARY, EDUCATION AND EQUAL OPPORTUNITIES, NATIONAL UNION OF TEACHERS, UNITED KINGDOM
- **DONALD MACLEOD**, EDITOR, *EDUCATION GUARDIAN*, UNITED KINGDOM
- **PHILIPPE MANIÈRE**, DIRECTOR, INSTITUT MONTAIGNE, FRANCE
- **HOLGER RUPPRECHT**, MINISTER OF EDUCATION, YOUTH AND SPORTS, BRANDENBURG, GERMANY
- **CECILIA TORTAJADA**, PRESIDENT, INTERNATIONAL WATER RESOURCES ASSOCIATION

(Left to right): **Barbara Ischinger, John Bangs, Donald MacLeod and Philippe Manière**

The subject of education naturally invited itself into the Forum discussions because it was, as **Barbara Ischinger** said, tightly linked to employment and stability. OECD analysis shows that a large number of children are failing to learn basic skills and, as Barbara Ischinger warned, "the price for educational failure is high".

The panel broadly agreed that the challenge of reaching equity in education, in developed as well as developing countries, involved problems rooted well outside the classroom, and centred on what **Cecilia Tortajada** called the "vicious circle" of social disadvantage. "Poverty and marginalisation remain the leading causes of exclusion from education", she said. "Families in remote communities in rural areas, mostly in developing countries, have less access to primary education, while families in disadvantaged urban areas in both developing and developed countries have less access to quality education." Net enrolment ratios for primary schools are above 90% in more than half the countries across Europe, East Asia, North America and Latin America, but are much lower in Africa, Central, South and West Asia and the Arab States, she said.

Among OECD countries, children who drop out of school at an early age stand a 50% chance of spending the rest of their adult lives in the lowest social categories, with little or no skills and largely unemployed. Their children will probably follow suit. Cecilia Tortajada said the problems for poor and marginalised communities are exacerbated by the quality of schools serving them, beginning with poor facilities, insufficient hours of instruction, sub-standard learning material. The most important short-term issue was the quality of teaching.

John Bangs, commenting on the issue for developed countries, agreed. "All the evidence in OECD research shows we should be placing emphasis on the quality of teachers", he said. It is the quality of teaching, not diversity of provision that required attention. It is vital that every country define a vision for education in the 21st century. There is an enormous amount to do, he said, beginning with raising the level of teacher training. Once in the job, teachers are not adequately empowered to take control of their mission, and many felt disassociated from the broader management of education as a result.

He emphasised the importance of looking at the relationships between the global education community, local communities

John Bangs

in different countries, the community of teachers and the community of young people. He urged that developed and developing countries agree on teacher exchange protocols. John Bangs also highlighted the importance of global research such as PISA in identifying attitudes among young people towards issues of global concern, such as climate change and the pessimism which they have for the future if they are not engaged in practical solutions, particularly in schools. He argued that governments, organisations such as the OECD, schools, and teachers and their organisations can help dispel children's pessimism about the future by exploring practical education strategies which can be seen to make a difference.

Donald MacLeod said teachers in the UK were inundated with bureaucratic directives, diverting their attention from the essentials of their job. "A lot of teachers are beginning to scream 'enough'", he argued. He also said, while there was consensus in the UK that schools must be available to every category of society, "the way to do it is fiercely contested".

Returning directly to the subject of the session, **Holger Rupprecht** said it was vital that every community, within a given geographical definition, had access to a school. The OECD's PISA survey showed that, in Germany, a pupil's social background broadly determined his or her academic results. However, this relationship was less influential in Brandenburg where extraordinary efforts are made to maintaining schools in every neighbourhood. "We have parts of the Brandenburg region which are very sparsely populated and others, in neighbourhoods close to the capital Berlin, which are over-populated," he said. Several years ago, schools began closing down in the smaller, generally less affluent, communities requiring children to transfer to establishments far from home. The closures were halted and schools are now kept open despite the fact that some have a very low number of pupils. "This is a costly programme, and we have to regularly defend our decisions with the financial departments", he said. "We review the situation on an annual basis." But simply maintaining a school in every community is, according to Holger Rupprecht, a significant contribution to equity in education. "We are certain that we have made the right choice", he added.

Philippe Manière said that education in France suffered from a social segregation of schools. "There is neither enough [social] diversity in school populations nor among teaching staff", he said. And the situation is getting worse. In France's "grandes écoles", elite schools that produce most of France's future decision-makers, only 9% of students came from modest social backgrounds, he pointed out, whereas 50 years ago that proportion was 28%. "Essentially, kids from bad neighbourhoods go to bad schools; those from good neighbourhoods go to good schools", he said. There is no obvious answer to the problem. But there are practices that should be changed. At present, newly-qualified teachers are sent to the most deprived and difficult areas and, as a result, many of them are soon eager to leave the profession. Salaries should be raised and the criteria for recruiting teachers changed to attract candidates from wider social and ethnic backgrounds.

Philippe Manière cited Finland as a model example for education, where the teaching profession is regarded with great respect, and where there are vastly more candidates to become teachers than there are vacancies. Teachers occupy a fundamental role across Finnish society, especially in rural areas. "The elite among Finnish students may be less elite in their training but, among all the students, no-one is left behind." ■

Philippe Manière, Holger Rupprecht and Cecilia Tortajada

Jobs and growth

Middle-class fears

- *MODERATOR:* **JOHN P. MARTIN**, DIRECTOR, EMPLOYMENT, LABOUR AND SOCIAL AFFAIRS, OECD
- **GEOFFREY I. GALLOP**, PROFESSOR, UNIVERSITY OF SYDNEY, AUSTRALIA
- **MARIE-LOUISE KNUPPERT**, CONFEDERAL SECRETARY, DANISH CONFEDERATION OF TRADE UNIONS
- **ENRICO LETTA**, MEMBER OF PARLIAMENT, ITALY
- **DENNIS J. SNOWER**, PRESIDENT, KIEL INSTITUTE FOR THE WORLD ECONOMY, GERMANY
- **AVIVAH WITTENBERG-COX**, CEO, 20-FIRST

(Left to right): **John P. Martin and Geoffrey I. Gallop**

Despite the recent slowdown in OECD economies, this past decade has been good for employment, with average jobless rates falling below 6% amidst fairly rapid economic growth. Why then do workers in many countries still feel threatened by globalisation, and how should governments encourage them to see it as an opportunity?

The right balance between protection and incentives can be tough to measure, especially as workforces age. Highlighting this challenge, **John P. Martin** asked panellists to make their proposals during this morning session on jobs and growth.

In a period of rapidly ageing workforces, maintaining labour market flexibility will require a strong focus on retraining, he said. It will also mean revisiting and reorienting certain values when necessary. Ironically, both workers and employers seem to favour increasingly early retirements at a time when life expectancy is increasing, and this is just the type of disconnect that needs to be addressed. Globalisation produces outsourcing, off-shoring and increased competition. This results in the loss of many jobs, but also in a great deal of job creation.

The panel agreed on the importance of culture, flexibility and training in these seemingly turbulent times. Deep-rooted culture, often overlooked, is a fundamental ingredient in deciding whether an economy grows or stagnates. Indeed, the tendency to retire earlier is often the result of cultural norms rather than economic rationale. Flexibility in the labour market is also essential for reaping the benefits of globalisation, but this must be balanced by a system that compensates those who suffer as a result. And lastly, training increases the employability of the work force which, in turn, results in higher flexibility.

Geoffrey I. Gallop spoke about the measures that the Australian government is taking to this effect. After opening up its financial markets during the 1980s and implementing microeconomic reforms in the 1990s, Australia's third wave of reforms now focuses on human capital, education and social inclusion. "It is a full life cycle approach", he said, "based on lifelong learning and with a focus on key points in a person's life, especially the early years of education and the transition from school to work". He also emphasised the importance of strong partnerships between the national and state governments on the one hand and communities on the other. While he admitted Australia's decentralised system was somewhat uncommon in that the central government holds a particularly strong budgetary carrot that encourages regions to adopt lifelong learning programmes, he said other governments could use similar incentive packages to mobilise their own private sectors.

Avivah Wittenberg-Cox

Marie-Louise Knuppert said, turning back to Europe, that although Denmark's "flexicurity" model is much touted as a solution for labour market reform in heavily regulated economies, governments must remember that it is based on high education levels and widely available retraining. The real basis for Denmark's model remains education; the country's famously high tax levels are only a part of the solution. More important, she said, is the strong partnership between unions, governments and companies – a system that allows agreements to be reached through high stakeholder participation.

But without consensus between Danish political parties, the all-important trust factor that provides the foundation for such system would crumble. These underlying principles are enshrined by confidence that the system, while adaptable to different situations, will remain constant. "Everyone knows that a new government will not come in and change policy", she said. Unions advocate a genuine and realistic approach, tailoring their demands to economic reality: "We do not go and say we want a 20% raise – when we negotiate, we say we want a 4% raise but also funds for (lifelong learning) projects." Above all, she said, "the focus should not be on rules but on the ability for workers to be mobile."

More and more, the middle-class seems to be afraid of globalisation, and they are increasingly feeling more of its negative effects than positive ones, said **Enrico Letta**. In this day and age, a diploma is generally not sufficient to cope with fast-paced changes in labour markets. And since volatility can have enormous effects on consumer sentiment, governments need to take action to head off negative economic reactions. If we do not manage the negative aspects, there is risk of a revolt by the middle classes. "International institutions must take on a bigger role to level the playing field", he said. In the European Union, for example, mandatory programmes should be instated, obliging governments to set standards on lifelong learning and retraining programs. But they should strike a proper balance between protection and incentives.

Marie-Louise Knuppert

"Skills are no longer a guarantee for job security", asserted **Dennis J. Snower**. He explained that the changes which are currently affecting the labour market of most OECD countries have put new demands on workers. Emphasis has to be put on acquiring specific skills but, above all, on mobility. "The implications of today's changes mean that it is vital to promote the adaptability of the workforce", he said. So it is important to support lifelong learning by providing continuous training to workers. He also suggested that the unemployed receive training vouchers as part of a proposed benefit transfer scheme. This would empower the jobless to use their vouchers to attract employers, who would receive the vouchers if a hire is made. Dennis J. Snower insisted on adaptability as the key issue in the new globalised labour market.

Avivah Wittenberg-Cox focused on women's growing integration into the labour market. She asserted that a country's competitiveness is increased when women increase their participation in the workforce. She also pointed to a link between high birth rates, growth and proactive natal policies. "Look at the Nordic countries – these are the countries that have promoted the greatest gender balance in their political and economic systems", she said. As the population in developed countries continues to age, she said, countries would be wise to steer culture away from old, hierarchical traditions, and tap more into older workers as a resource.

John P. Martin pointed out that the Danish flexicurity model was not new and that it was actually in place during the 1970s when the country's unemployment rate exceeded 12%. He then asked why this same system works better today, permitting a 3% rate of unemployment, and whether this performance could be sustained. Marie-Louise Knuppert answered that it could be sustainable, but "to maintain it, we must change it all the time". Indeed, the Danish flexicurity model has existed since 1899, and has been subject to constant change. During the 1970s, it was realised that the country's labour force badly needed to work on its skill base. This helped the model achieve the results that Denmark enjoys today. John P. Martin added that activation policies, which push the unemployed to seek and accept jobs, also helped. ■

Open markets for trade and investment

Resisting the temptation of protectionism

- *MODERATOR:* **JAGDISH BHAGWATI**, PROFESSOR OF ECONOMICS, COLUMBIA UNIVERSITY, UNITED STATES
- **SHARAN BURROW**, PRESIDENT, AUSTRALIAN COUNCIL OF TRADE UNIONS
- **GLEN HODGSON**, SENIOR VICE-PRESIDENT, THE CONFERENCE BOARD OF CANADA
- **LUC LAMPRIÈRE**, EXECUTIVE DIRECTOR, OXFAM FRANCE
- **CLYDE V. PRESTOWITZ**, PRESIDENT, ECONOMIC STRATEGY INSTITUTE, UNITED STATES

Sharan Burrow

Jagdish Bhagwati

Trade and investment have always been the key factors for sustaining growth and stability. In this afternoon's session, the speakers addressed the issues of whether open markets are now under threat, if and how regulations should respond to the emergence of sovereign wealth funds (SWFs), and how to better communicate the benefits of free trade and investment.

Jagdish Bhagwati, a long-time advocate of free trade, does not foresee a serious outbreak of protectionism, mainly because there are far more constraints on governments to raise tariff barriers than, say, in the 1930s, when protectionism last prevailed. Indeed, he sees more cause for concern in the use of labour and environmental standards as "covert protectionism". Imposing western standards of environmental protection or safety concerns on developing countries will reduce their competiveness. "It is not a flat world, but some people [in the West] want to flatten it", he argued.

As for the regulation of SWFs, Jagdish Bhagwati questions the utility of special regulations. "Do we need a code? I doubt it." For him, these funds can easily navigate around such regulations by, for example, outsourcing their investments to professional managers in the West. Finally, he lamented the media's exaggerated focus on job losses associated with free trade and investment while ignoring the jobs that are created. "We need to develop a menu with pictures of factories opening", although he conceded that there is no simple way to communicate the advantages of free trade.

Sharan Burrow said that we should learn from the failure of the "Washington consensus" (shorthand for free market orthodoxy), reorient our idea of globalisation, and move away from the "business as usual" approach. As a labour representative, Sharan Burrow insisted that she wanted "robust domestic and global markets" but with "rights-based labour mobility". She called it "decent capitalism". For her, open markets are under threat because of the negative distributional effects of globalisation and the resulting two-speed economies. Globalisation will only succeed if political leaders acknowledge that it creates both winners and losers, and seek ways to compensate the latter.

Sharan Burrow thus calls for the debate to begin on effective regulation and the

(Left to right): **Luc Lamprière and Clyde V. Prestowitz**

building of common core values saying that, "we are all interrelated in global supply chains". "The current financial crisis was no accident", she continued, and "it was not impossible to predict", thus criticising the idea that financial markets are capable of self-regulation – "freedom to invest must not outweigh effective regulation".

Glen Hodgson believes that we need to rethink everything about globalisation and adopt a modern view of trade; one which he calls "integrative trade". Since firms are able to use investment to reposition their business around the world, a new international business model has appeared. Indeed, a global supply chain has emerged. Glen Hodgson took the example of Apple's I-Pod which is labelled "made in China", despite the fact that half of its components are made in the US and many others in Europe and elsewhere in Asia, making it a "global product".

Despite this, and concurring with Jagdish Bhagwati, Glen Hodgson warned of the emergence of what he calls "a new protectionism", as tariffs, domestic subsidies, quotas, and anti-dumping laws are being supplanted by the likes of labour and environmental standards. He also spoke of the emergence of "foreign investment mercantilism", with countries promoting outward expansion, but obstructing foreign acquisitions at home. All of this leads to a growing risk of trade and investment policy fragmentation, even as global economic integration continues, and requires a "global debate on standards".

Luc Lamprière highlighted some of the negative consequences of free trade, such as the recent surge in food prices and its impact on the daily lives of the poor. He believes that developing countries should walk away from the Doha Round of Trade Talks if a satisfactory agreement is not reached, or if developed countries try to impose artificial deadlines. "Developing countries should not be rushed into a bad deal", he said.

What is needed, in his opinion, is "a deep reform of the world trading system". At the moment, the Doha Trade Round is generating much talk but little substance – a type of "development light" – with few signs of the political will required to tackle distorting subsidies. Fairer markets must be developed instead of just freer markets, he insisted. The goal of making poverty history is still a realistic one and must not be abandoned.

Clyde V. Prestowitz described the extraordinary rise in the US trade deficit over the past two decades, from USD 27 billion in 1981, when he became assistant to the Treasury Secretary in the US government, to over USD 800 billion today. Looking at these figures, Clyde V. Prestowitz sees little cause for concern about the threat to open markets. "It is hard for me to get terribly worried ... a country that has a deficit of USD 850 billion is importing an awful lot of goods, and cannot be very protectionist." Nonetheless, he argued that the current framework of conceptualisation is outdated as we are still drawing analogies with the Great Depression which happened over 70 years ago. The problem now is the premise that "we are all playing the same game", which is not in fact the case. "Half the world is playing football, the other half is playing tennis", he said. On the one hand, half is playing "neoclassical, liberal, free trade economics", with domestic consumption driving economic growth, low savings rates, floating currencies and idiosyncratic cases of protectionism (as opposed to systematic protectionism). On the other hand, there are those countries that pursue export-led-growth and, for that, "you need strategic protectionism". These countries have high savings, managed currencies, persistent current account surpluses and "a vast array of industrial policies and regulations", he said. This has resulted in unstable imbalances: "the world may be flat, but it is tilted", he remarked.

A woman from the floor, a trade advisor at the European Parliament, asked Glen Hodgson why environmental and labour norms were presented as new protectionism. She recalled that there had been a 1999 trade agreement in textiles between US and Cambodia which included labour clauses. So should there not be some labour clauses in multilateral agreements too?

Glen Hodgson said that he was not against such clauses, but cautioned about how they were used, in which details the devil resides. "They are often disguised as environmental and labour clauses, but are actually protectionist clauses", he maintained. ■

Glen Hodgson

Financial market turbulence

Learning from a crisis

- *MODERATOR:* **ROBERT KUTTNER**, CO-EDITOR, *THE AMERICAN PROSPECT*
- **ADRIAN BLUNDELL-WIGNALL**, DEPUTY DIRECTOR, FINANCIAL AND ENTERPRISE AFFAIRS, OECD
- **PADMA DESAI**, DIRECTOR, CENTER FOR TRANSITIONAL ECONOMIES, COLUMBIA UNIVERSITY, UNITED STATES
- **JAN FRAIT**, HEAD, FINANCIAL STABILITY, CZECH NATIONAL BANK
- **SUSAN GEORGE**, BOARD CHAIR, TRANSNATIONAL INSTITUTE

(Left to right): **Adrian Blundell-Wignall and Padma Desai**

Robert Kuttner opened the discussion by noting that the recent financial crisis has called into question the notion that financial markets are efficient, as well as whether the recent pace of financial innovation was desirable. Some argue that central bank intervention has now resolved the issue, while others maintain that the system is broken and needs reform and/or tighter regulation. The Basle II regulations on capital requirements have also been seen as potentially insufficient. All of this raises the issue as to what reforms are needed, and whether any changes should be mandatory.

Adrian Blundell-Wignall warned that the present situation could mark the beginning of a crisis which could still take some time to work itself out. Banks by their nature are very highly leveraged institutions which make them vulnerable to brutal changes in financial markets. On current estimates, the banks in the US alone probably require around USD 90 billion in new capital just to stand still. If they are to grow their balance sheets, their capital needs would be larger. Estimates of the total cost of the current crisis have been continually revised upwards and, according to the OECD's latest estimates, could amount to USD 400 billion.

According to Adrian Blundell-Wignall, the roots of the current crisis can be traced back to 2004, when the Basle II regulations governing banks' capital requirements were being drawn up. The banks themselves were given too much say in what these capital requirements should be, and the regulations were consequently too lax. In addition, restrictions placed on the two major US mortgage securitisation firms, Fannie Mae and Freddie Mac, left a void that the commercial banks rushed to fill. In consequence, the total value of securitised mortgages rose from around USD 800 billion at the end of 2004 to USD 2.1 trillion two years later. Regulatory overlap was essentially a big part of the problem, and what is now needed is a more uniform, coherent and stringent system of regulation.

Padma Desai argued that the crisis we are going through now is partly characterised by rising prices for oil and food, which are primary and essential commodities. She suggested that, if measures are needed, they must not merely be "Anglo-American" in scope, but truly international.

Why did this crisis arise? The US Federal Reserve acted quickly by bringing interest rates down from 5.25% to 2% in order to ease liquidity problems. But part of the problem was the earlier period of very loose monetary policy from 2002 onwards, during which capital inflows from other countries, particularly the Asian economies, were financing the US deficit and keeping US interest rates at an artificially low level.

With this in mind, recent excessive consumption trends in the US need to be curbed urgently. So far, the subprime crisis has been largely limited to the US economy, but the spike in food and commodity prices is a global problem. Petrol subsidies in India cost taxpayers USD 50 billion a year, about 3% of GDP, and the government is under pressure to cut these, despite this being an election year. Inflation is affecting economies around the world, and Padma Desai suggested that measures could be taken to ease these problems internationally.

Jan Frait offered some insights based on the experience of the Czech Republic, which emerged from a major financial crisis around ten years ago through a combination of better bank supervision and a smarter monetary policy. At that time the Czech currency, the koruna, had become quite sensitive to changes in global financial markets. Despite the fact that

the koruna's tendency was to appreciate, making life difficult for domestic exporters, the monetary authorities openly adopted the position that they would not soften the currency artificially, forcing businesses to learn how to weather global headwinds.

The Czech Republic also kept interest rates similar to those of the US Federal Reserve. This policy helped insulate households from exchange rate risk and reduced the incentive to borrow money overseas. It also shielded the currency from speculative attacks and tempered the overly optimistic expectations of the corporate sector.

Applying these lessons learned from the current financial crisis, Jan Frait recommended a closer examination of the role of monetary policy in reducing financial market volatility. He called for a debate on a mechanism to adjust and co-ordinate worldwide monetary policy, and suggested that it is probably also time to reduce the traditional asymmetry in monetary policy, whereby central bankers are quick to cut rates in times of crisis but too slow to raise them during economic upturns. Finally, he cautioned against over-regulating, arguing that financial institutions are largely capable of learning and correcting themselves.

Susan George

(Left to right): **Adrian Blundell-Wignall, Padma Desai, Jan frait and Susan George**

Susan George blamed the current financial crisis on private financial institutions. In her view, mergers between financial institutions have resulted in firms too big to be allowed to fail. In order to maintain growth in profits, these firms are increasingly obliged to "bottom fish", taking on ever-riskier investments. Rating agencies did not flag these risks, and regulators did not spot the risks either. Indeed, some institutions, such as hedge funds, were not regulated at all. Major risks were passed through the financial system. Banks also moved some of their assets off balance sheets to circumvent capital requirements. In Susan George's view, "banks are like water; they go around regulations like water goes round stones in a stream".

But the consequences of the crisis have a human dimension, not just a financial one, and this should not be allowed to happen again. Susan George noted that the "too big to fail" argument had to be eliminated, and that any institution that is truly too big to fail belongs in the public sector. She also suggested limits on financial sector bonuses and salaries, the elimination of tax havens, and the introduction of a differential interest rate system involving higher borrowing costs for speculative activity and a lower rate for real investments. Finally, she argued for measures that oblige the banks to invest in worthy, green projects and in support of a transition to a low carbon economy.

The first of several questions from the floor asked how to go about building confidence in a currency. Adrian Blundell-Wignall noted that the most important consideration is the implementation of sound macroeconomic policies. Padma Desai added that financial institutions need to be strong and well-regulated. Susan George commented that, in order to attract strong direct investment, a country needs sound fundamentals such as a stable legal system, high education levels, and a good balance between wage levels and productivity.

Another participant asked whether ongoing global imbalances could cause further financial problems. Adrian Blundell-Wignall commented that distortions in the global economy, such as China's fixed exchange rate and limits on oil supply, will potentially cause problems. Susan George agreed that further turbulence is likely, particularly as speculators appear to have shifted from financial instruments to commodities, including food. ■

Tel.: +33 (0)1 45 24 82 00
Fax: +33 (0)1 44 30 63 46
sales@oecd.org

Published in English by the Organisation for Economic Co-operation and Development

OECD Publishing
2, rue André-Pascal
75775 Paris cedex 16, France
www.oecd.org

OECD FORUM MANAGER
John West
EDITORS
Rory Clarke, Ricardo Tejada
EDITORIAL ASSISTANTS
Madeleine Barry,
Christine Clément, Graínne Mooney,
Loïc Verdier,
CONTRIBUTORS
Brian McGarry, Brian Rohan,
Michael Sykes,
Graham Tearse, Lyndon Thompson
and students from HEC

LAYOUT
OECD Publishing
PUBLICATION CO-ORDINATOR
Christine Clément
PHOTO EDITOR
Silvia Thompson
ASSISTANT PHOTO EDITOR
Michael Dean
PHOTOGRAPHERS
Hervé Cortinat, Benjamin Renout,
Victor Tonelli, Andrew Wheeler
WEB EDITION
Maggie Simmons
PUBLISHING DIRECTOR
Toby Green
LOGO AND DESIGN
OECD Publishing
PRINTING
OECD Publishing

oecd Observer

- **Angel Gurría**, Secretary-General, OECD
- **H.S.H. Prince Albert II of Monaco**
- **John Bangs**, Assistant Secretary, National Union of Teachers, United Kingdom
- **Agnès Bénassy-Quéré**, Director, CEPII, France
- **Jagdish Bhagwati**, Professor of Economics, Columbia University, United States
- **Asit K. Biswas**, President, Third World Centre for Water Management
- **Adrian Blundell-Wignall**, Deputy Director, Financial and Enterprise Affairs, OECD
- **Alison Brimelow**, President, European Patent Office
- **Sharan Burrow**, President, Australian Council of Trade Unions
- **Agustín Carstens**, Secretary of Finance and Public Credit, Mexico
- **Bernard Clerfayt**, Deputy Minister of Finance, Belgium
- **Laurent Cohen-Tanugi**, Chair, "Europe in the Global Economy" Task Force, France
- **Simon Crean**, Minister of Trade, Australia
- **Françoise Crouïgneau**, Chief International Editor, *Les Echos*, France
- **Yvo de Boer**, Executive Secretary, UNFCCC
- **Aart de Geus**, Deputy Secretary-General, OECD
- **Rodrigo de Rato**, Senior Managing Director, Lazard
- **Padma Desai**, Director, Center for Transitional Economies, Columbia University, United States
- **Soumitra Dutta**, Dean of External Relations, INSEAD, France
- **David Eades**, Presenter, BBC World News
- **Luis Echávarri**, Director-General, Nuclear Energy Agency, OECD
- **Carolyn Ervin**, Director, Financial and Enterprise Affairs, OECD
- **Philippe Esper**, President, Eurotradia International, France
- **Tasneem Essop**, Minister of Environment, Planning and Economic Development, Western Cape, South Africa
- **Geneviève Ferone**, Vice-President, Sustainable Development, Veolia Environnement
- **David Foster**, Executive Director, Blue Green Alliance, United States
- **Jan Frait**, Head, Financial Stability, Czech National Bank
- **Geoffrey I. Gallop**, Professor, University of Sydney, Australia
- **Xiqing Gao**, President, China Investment Corporation
- **Cristina Garmendia**, Minister of Science and Innovation, Spain
- **Susan George**, Board Chair, Transnational Institute
- **Jean-Daniel Gerber**, State Secretary for Economic Affairs, Switzerland
- **Chris Giles**, Economics Editor, *Financial Times*
- **Iain Gillespie**, Head, Biotechnology, OECD
- **Phil Goff**, Minister of Trade, New Zealand
- **Anthony Gooch**, Director, Public Affairs and Communications, OECD
- **Kristin Halvorsen**, Minister of Finance, Norway
- **John P. Hearn**, Deputy Vice-Chancellor, University of Sydney, Australia
- **Glen Hodgson**, Senior Vice-President, The Conference Board of Canada
- **Alain Hubert**, Chairman, International Polar Foundation
- **Andrew Hunter**, Head, Macquarie Europe
- **Anne-Marie Idrac**, State Secretary, Foreign Trade, France
- **Barbara Ischinger**, Director, Education, OECD

Speakers

- **Alejandro Jara**, Deputy Director-General, WTO
- **Peter Kemp**, Editorial Director, *Energy Intelligence*, United Kingdom
- **Jan H. Keppler**, Professor of Economics, Paris-Dauphine University, France
- **Marie-Louise Knuppert**, Confederal Secretary, Danish Confederation of Trade Unions
- **Helga Kromp-Kolb**, Professor, BOKU University, Austria
- **Robert Kuttner**, Co-Editor, *The American Prospect*
- **Gyehyun Kwon**, Vice-President, Samsung Electronics Co. Ltd.
- **Luc Lamprière**, Executive Director, Oxfam France
- **Richard Lavergne**, Secretary-General, Observatoire de l'énergie, France
- **Michel Le Sommer**, Engineer, Le Sommer Environnement, France
- **Eduardo Leão de Sousa**, Executive Director, UNICA, Brazil
- **James P. Leape**, Director-General, WWF International
- **Sylvie Lemmet**, Director, Division of Technology, Industry and Economics, UNEP
- **Enrico Letta**, Member of Parliament, Italy
- **Doris Leuthard**, Minister of Economic Affairs, Switzerland
- **Beatriz Leycegui Gardoqui**, Undersecretary for International Trade Negotiations, Mexico
- **Pierre Liautaud**, Vice-President, Western Europe Region, Microsoft EMEA
- **Pedro Lichtinger**, President, European Pharmaceutical Operations, Pfizer
- **José Lopez**, Executive Vice-President, Nestlé
- **Lorents Lorentsen**, Director, Environment, OECD
- **Pierre Lortie**, Senior Business Advisor, Fraser Milner Casgrain LLP (Montreal), Canada
- **Francisco J. Lozano**, Co-ordinator, Sustainable Campus Programme, Tecnológico de Monterrey, Mexico
- **Donald MacLeod**, Editor, *Education Guardian*, United Kingdom
- **Giandomenico Magliano**, Director-General, Ministry of Foreign Affairs, Italy
- **Philippe Manière**, Director, Institut Montaigne, France
- **John P. Martin**, Director, Employment, Labour and Social Affairs, OECD
- **Alain Massiera**, Deputy CEO, Calyon
- **Hamish McRae**, Associate Editor, *The Independent*, United Kingdom
- **Gérard Nicaud**, Senior reporter, *Le Figaro*, France
- **Michael Oborne**, Director, Advisory Unit on Multidisciplinary Issues, OECD
- **Hideaki Oda**, Councillor to the President, Japan Water Forum
- **Pier Carlo Padoan**, Deputy Secretary-General, OECD
- **Mario Pezzini**, Deputy Director, Public Governance and Territorial Development, OECD
- **Jean-Pol Poncelet**, Senior Vice-President, Sustainable Development and Continuous Improvement, AREVA
- **Clyde V. Prestowitz**, President, Economic Strategy Institute, United States
- **Bernard Ramanantsoa**, Dean, HEC, France
- **John Rother**, Group Executive Officer, Policy and Strategy, AARP, United States
- **Holger Rupprecht**, Minister of Education, Youth and Sports, Brandenburg, Germany
- **Daigee Shaw**, President, Chung-Hua Institution for Economic Research, Chinese Taipei
- **Dennis J. Snower**, President, Kiel Institute for the World Economy, Germany
- **Néstor Edgardo Stancanelli**, Deputy Secretary, International Economic Negotiations, Argentina
- **John J. Sweeney**, President, American Federation of Labor-Congress of Industrial Organizations
- **Stefan Tangermann**, Director, Trade and Agriculture, OECD
- **John Thornhill**, Editor, European Edition, *Financial Times*, United Kingdom
- **Sir Crispin Tickell**, Director, Policy Foresight Programme, Oxford University, United Kingdom
- **Dennis Tirpak**, Associate, International Institute for Sustainable Development
- **Cecilia Tortajada**, President, International Water Resources Association
- **Thierry Touchais**, Executive Director, International Polar Foundation
- **Jean-Claude Trichet**, President, European Central Bank
- **Jean-Paul Villain**, Head, Strategy Unit, Abu Dhabi Investment Authority
- **Jean-Marc Vittori**, Editorial Writer, *Les Echos*, France
- **Michel Vounatsos**, President, MSD-France
- **Jeremy Webb**, Editor-in-Chief, *New Scientist*, United Kingdom
- **Steve Westwell**, Executive Vice-President, BP
- **Avivah Wittenberg-Cox**, CEO, 20-first
- **Elaine M. Wolfson**, Founding President, Global Alliance for Women's Health