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No. 242 – March 2004

www.oecdobserver.org

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OECD observer
No. 242 (Mar. 2004)
I-22/73 P (E) 3

Date: 2004-03-22

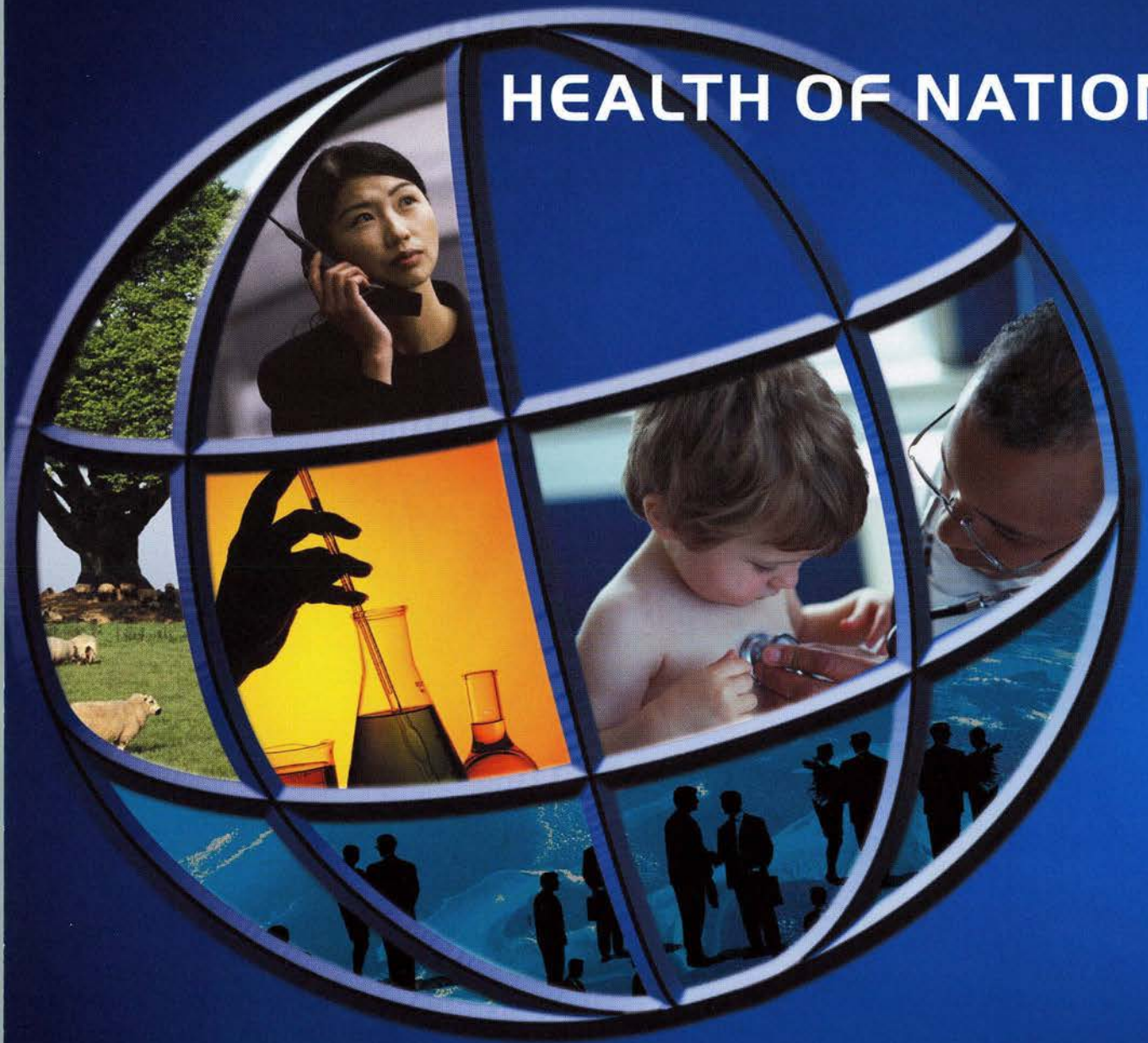
Class atmosphere

... EDUCATION... ENVIRONMENT... EDUCATION... ENVIRONMENT...

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HEALTH OF NATIONS



**HELP BUILD A BETTER WORLD
COME TO OECD FORUM 2004**

12-13 May, Centre de Conférences Internationales, Paris

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Observer^{oecd}

www.oecdobserver.org
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2004 subscription rate:
€50 – US\$50 – £31 – ¥5 900
ISSN 0029-7054
Tel: +33 (0) 1 45 24 82 00
Fax: +33 (0) 1 45 24 82 10
sales@oecd.org

Founded in 1962
The magazine of the Organisation for
Economic Co-operation and Development

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

Published in English and French
by OECD and Financial Times Business Ltd,
Tabernacle Court, 16-28 Tabernacle Street,
London EC2A 4DD.
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PRINTERS: St Ives

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OECD Observer
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FT Business
FINANCIAL TIMES

Broad views

Your call on governments to encourage broadband is welcome (news release, 12 Feb. 2004, see www.oecd.org/media). But what policies could possibly drive the process forward more quickly than it is already travelling? Surely the market is pushing us in this direction anyway. Demand for broadband, wired and wireless, is rising. The emergence of a fast, always-on communications network based on open standards has spurred innovation in communications. Countries that don't go along could soon resemble countries without electricity. Policy must tackle the dead hand of vested interests, particularly incumbents protecting their investments in outmoded proprietary systems. The Internet Protocol has leveled the technological playing field. It is high time to level the commercial playing field as well. Let the market decide which particular technology or service works best. Broadband is the only way forward.

Michiel Van Kuyen

Amsterdam, Netherlands

* * * * *

You back broadband and say that "too many homes and businesses remain mired in the slow download age of first-generation connectivity, unwilling or unable to access broadband" ("Broadband: For a bigger load", *OECD Observer*, No. 240/241, December 2003).

But who exactly is mired? Perhaps this new toy isn't selling as well as you'd like, because many people have made a conscious "choice" which the OECD and its constituent governments disagree with.

As a business, I rely on the Internet every day and, when I go home, I find it occasionally useful for other information, including some aspects of my

children's homework needs. I have used broadband and, yes, it downloaded my email at a blistering pace. I was able to receive the 94% spam content so much quicker: but this has no effect on the speed at which I can read. I could load web sites in an instant. How does this improve my quality of life? It doesn't. Broadband makes things faster, not better.

I am sure there are those who find it useful. But "useful" does not equal "necessary", and many of us have no desire to speed up our lives more than is "necessary". Why should the invention of ADSL require me to change the pace of my life to suit the profit motives of communications companies or policy objectives of governments? How does the ability and pressure to do more work in the same time and for the same pay benefit us as individuals or achieve a more harmonious and equitable society?

This was written and sent via DOS. Wired? Yes! Mired? I don't think so.

David Coleman

Editor & Publisher
HAZNEWS, London, UK

Walkers unite

Are you sure that people spent so much less on transport in the 17th century than they do now? In your comparison of spending in Britain by consumers today and in the past, (Databank, *OECD Observer* No. 240/241, December 2003) you observe that "transport and communication accounted for just 0.8% of total spending in 1688 but by 1996 this had soared to 10.6% [...] to become the single largest category of expenditure".

Travel in 1688 was, of course, predominantly on foot. Shoes

were, accordingly, the wheels of society. Might this not help to explain why in 1688 spending on "clothing and footwear" was exceeded only by that on food? Surely you should recalculate your graph, putting "footwear" under "transport" not "clothing".

In Europe, for instance, the majority of people make between a fifth and a quarter of their journeys entirely on foot. They would probably walk more except that, as Sarah Jain, a Stanford University social anthropologist, puts it: "streets are violent places". The author of that violence, the motor industry, has, however, yet to accept responsibility for it and for its lethal side-effects. In the short term, we need a global, comprehensive health and safety audit of the motor industry and, in the medium term, the redesign of what are paradoxically both state-of-the-art and obsolete products.

Terence Bendixson,

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Class atmosphere

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OECD 2004



Improving education and tackling environmental problems: these are two fundamental challenges facing OECD governments today. Progress is needed on both fronts. Young people depend on it.

Leading the way

Donald J. Johnston, Secretary-General of the OECD

The global political calendar for 2004 appears unspectacular compared with recent years. No Monterreys, no Johannesburgs, no Cancúns, no summits on water or the information society. Yet, like all calm waters, looks can deceive. In fact, it is precisely in such years of doing, rather than talking, that leadership is required. We have made commitments, and now we must work hard to keep them.

Leadership is required in several fundamental policy areas, like employment, science and technology, education, environment, health and international trade, without forgetting, of course, the world economy. So, it is not surprising that OECD ministers have chosen the year under way to exercise their leadership and, by drawing on the resources of our organisation, make real progress for our societies.

Unemployment continues to be far too high in the OECD area, with older workers, migrants, ethnic groups, aboriginal populations, persons with disabilities and disadvantaged youth being the hardest hit, not to speak of women, only half of whom of working age have a job. And so it was in September 2003 that OECD employment and labour ministers, under the chairmanship of François Fillon, France's minister of social affairs, labour and solidarity, asked the organisation to assist them in the task of designing and implementing a comprehensive strategy for more and better jobs, including reassessing the OECD Jobs Strategy.

When OECD science ministers met in January this year, under the chairmanship of Australia's minister for science, Peter McGauran, frank exchanges took place on a variety of critical subjects, not the least of which is the dearth of young people going into science and engineering studies. Again, ministers invited the OECD to help them by developing its activities in areas like the science-innovation interface, human resources in science and technology, and biotechnology.

We are looking forward to the education ministers meeting in Dublin in March, when they will address ways to improve the quality and equity of education systems. As the OECD's Programme for International Student Assessment (PISA 2000) shows, some countries are doing well on both counts, but other countries are not. Many face huge challenges, with teacher shortages, difficult social conditions and increasingly diverse student populations. Then in April OECD environment ministers will meet. A major agenda item will be the need for further urgent action to implement the OECD Environmental Strategy.

May will see the first ever meeting of OECD health ministers, which will consider the results of the OECD's three-year health project. With health costs rising rapidly and tomorrow's health systems likely to become even more costly, political leadership will again be

necessary to achieve and maintain high performance in health care. This meeting will take place at the same time as the annual OECD Ministerial Council where we will be seeking to inject fresh momentum into the Doha Development Agenda and sustain the recovery in the world economy. A vital engine for economic health is the small and medium-size enterprise sector, whose challenges will be the subject of another key ministerial meeting in Istanbul in June.

I very much enjoy these ministerial meetings, particularly on specific policy issues where participants are thoroughly immersed in the subject matter, knowledgeable of the issues, and able to engage in productive and informed dialogue and debate with colleagues. More importantly, the political leadership they bring to bear is necessary for the implementation of OECD policy recommendations, and to receive guidance on how the OECD can help governments in the period ahead.

Furthermore, I find myself concluding that there is one central, fundamental area of public policy which runs through all our work. It brings to mind an old saying on real estate, namely that there are three things of importance: location, location, location. In our knowledge-based society, what is fundamental? Education, education, education!

Of course, education has always been essential for economic success and social progress. But, in today's world, education is key to more and better jobs, effective science systems, environmental management, preventive medicine and a healthy population, investing wisely in financial markets and benefiting from multilateral trade and investment.

Surely, all of this points to the need for massive and effective investment in education. The Bill Gates of tomorrow could be languishing in a world bereft of opportunities. Can we afford to waste that potential?

This year's "bumper crop" of OECD ministerial meetings is timely at this moment when political leadership is so necessary. But it is also critical in helping us see through the maze of policy analyses and recommendations. Each meeting will deal with important questions confronting societies within and beyond the OECD. But they all hang together on one common theme – education. ■



• News brief •

Recovery more certain

Moderate to strong growth lies ahead in the OECD area, according to the latest composite leading indicators (CLIs), with a continued strong improvement in the United States in particular. The CLI for the OECD area rose by 0.8 points in December 2003 to 123.6 from 122.8 in November. Its six-month rate of change has also risen significantly since April 2003, following a decline that began in May 2002.

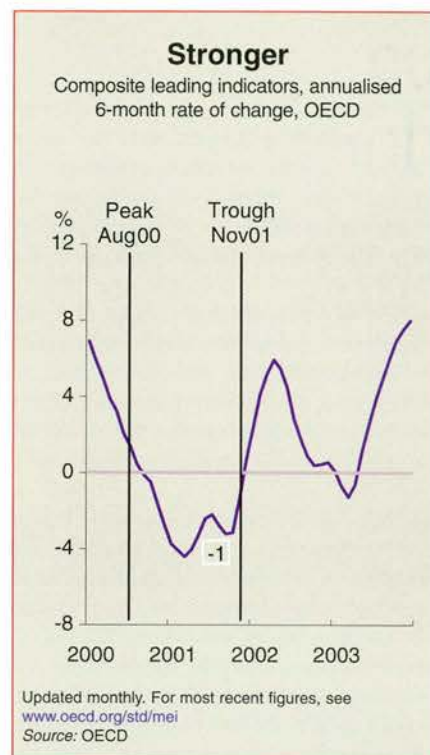
The CLI for the United States increased by a strong 1.6 points in December, and its six-month rate of change was also up substantially for the ninth consecutive month.

The CLI also rose in the euro area, up 0.3 points, but its six-month rate of change fell after seven months of increases. France's CLI increased by 0.9 points in December and its six-month rate of change increased for the ninth month in a row. Germany also saw its CLI rise in December by 1.1 points, and its six-month rate of change has shown strong increases over the

past eight months after 11 months of declines. But Italy's CLI fell a marked 1.5 points in December and its six-month rate of change was down sharply.

Elsewhere, Japan saw its CLI rise by 0.2 points in December, but the six-month rate of change was down for the second month in a row, after six months of increases. The leading indicator for the UK rose by 0.8 points in December and its six-month rate of change was also up for the ninth consecutive month. Canada showed a sharper rise, with its CLI up a strong 1.7 points in December and its six-month rate of change higher for the eighth consecutive month.

The OECD's composite leading indicators cover a wide range of key short-term economic indicators and are designed to provide early signals of turning points (peaks and troughs) in economic activity. More information on OECD composite leading indicators can be found at www.oecd.org/statistics. ■



Nauru off tax haven list

The world's smallest independent republic, Nauru, a state in the Pacific, has been taken off the OECD's list of uncooperative tax havens.

The move in December 2003 came after Nauru pledged to improve transparency and establish effective exchange of information for tax matters with OECD countries by the end of 2005.

In a letter detailing the commitment, Nauru President Rene R. Harris noted that the commitments would have "significant adverse cost and revenue implications on the small economy of Nauru".

He hoped that OECD governments and other international organisations would take these into account when determining development assistance.



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Nauru is the second country to be removed from an OECD list of uncooperative tax havens published in April 2002. Vanuatu was taken off the list in May 2003. Five jurisdictions remain on the list: Andorra, Liberia, Liechtenstein, the Marshall Islands and Monaco. The OECD hopes these jurisdictions will make similar commitments. ■

- For more on the OECD's work on harmful tax practices, see: www.oecd.org/taxation

Pollution poll

Which environmental problem do you think is the most urgent? This question has been running as an electronic opinion poll at www.oecdobserver.org since 6 February 2004. At the time of going to press, some 700 responses had been received: 39% chose pollution, 24% climate change, 13% urban congestion or sprawl and 24% biodiversity and deforestation. Readers can vote on the *OECD Observer* opinion poll, which is purely indicative and not scientific in its sample. The poll will remain open until 21 April, when the OECD Environment Ministers meeting ends. ■

• News brief •

Public comment on OECD principles

Partnerships for better policy-making was given another boost when more than 70 individuals and national and international organisations from around the world took up an invitation to comment on a draft revision of the OECD Principles of Corporate Governance. The window for comments was about six weeks. OECD governments had asked for the principles, originally adopted in 1999, to be reinforced in response to recent corporate boardroom and other scandals.

Comments were submitted by such names as Standard and Poor's, the International Corporate Governance Network, the International Federation of Accountants, businesses such as Nike and Reuters, and civil society groups such as the International Federation of Human Rights, who wished the text to define "stakeholders" more clearly, and to see governance "beyond merely addressing the articulation between shareholders and managers".

The Institute of Internal Auditors (UK and Ireland) welcomed the review, though

wished to emphasise the importance of internal audit and risk management. The Business and Industry Advisory Committee to the OECD (BIAC, see page 18), representing the 38 main business federations in OECD member countries, urged governments to sustain the notion that "one size does not fit all" in corporate governance standards. Meanwhile, several national and international labour organisations criticised the draft, with the Trade Union Advisory Committee to the OECD (TUAC) arguing that it did not address workers' rights to participate in the corporate governance framework, nor promote the idea of responsible long-term shareholders. (For comments, see link below.)

The OECD will use the public comments, as well as feedback from consultations with governments and civil society in both OECD and non-OECD countries over the past year, to reinforce the Principles of Corporate Governance as a global reference for improving behaviour in the boardroom. Subsequent versions will also take into account comments by members of the OECD Steering Group on Corporate Governance. OECD ministers are expected to adopt the final text at their annual summit meeting in Paris on 13-14 May. ■

- For the full text of the draft revision and the public comments, see: www.oecd.org/corporate

Jobless rate lower

The unemployment rate in the OECD area fell in December to 6.9% from 7.0% in November and 7.1% a year earlier, with Italy showing a 0.5 percentage point drop over the 12 months. The Italian jobless rate was 8.4% in October (the latest figure available), above the OECD average but down from 8.9% a year earlier, while the UK standardised unemployment rate fell 0.2 percentage points from a year earlier to 4.9% in October.

In the euro area, the jobless rate rose 0.2% in December from a year earlier to 8.8%. The

sharp fall in the Italian jobless rate was offset by increases in France, up to 9.5% from 9.1% a year earlier, and in Germany, where the rate rose to 9.2% from 9.0%.

Unemployment fell in the US and Japan in December. The US jobless rate fell 0.3 percentage points from a year earlier to 5.7%, while Japan showed a 0.6 percentage point fall to 4.9% from 5.5% in December 2002. ■

- For the unemployment rates for all OECD countries, see www.oecd.org/statistics/data

Ukraine, Egypt make progress

The Financial Action Task Force (FATF), the international body in charge of safeguarding the global financial system against money laundering and terrorist financing, has taken Ukraine and Egypt off its list of non-cooperative countries and territories (NCCTs), citing substantial progress by both.

"This is evidence that the NCCT process is working and countries are taking substantive action to clean up their financial systems," said FATF president Claes Norgren on 29 February after an FATF plenary meeting decided on the move.

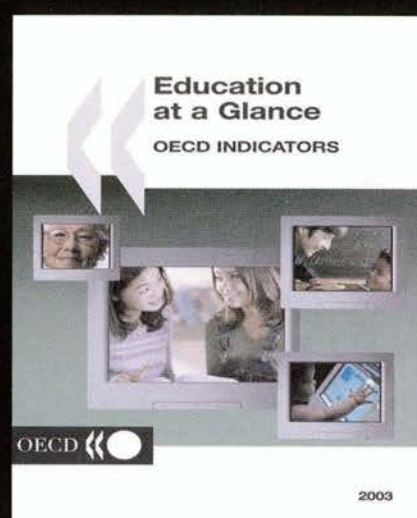
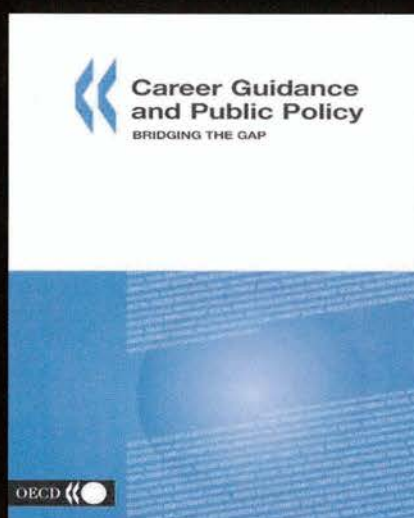
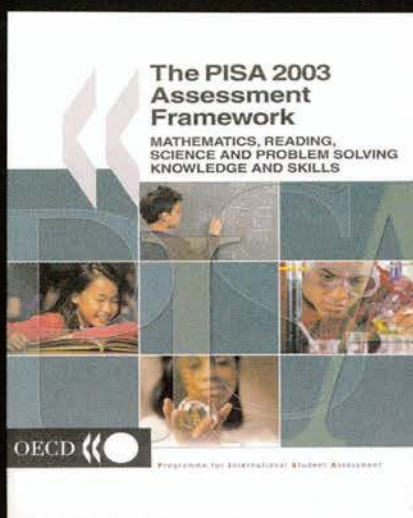
There are now seven countries on the list of non-cooperative countries and territories: Cook Islands, Guatemala, Indonesia, Myanmar, Nauru, Nigeria and the Philippines. Financial institutions in FATF countries are asked to give special attention to businesses and transactions with persons, including companies and financial institutions, in these listed countries or territories. The FATF welcomed further progress by several jurisdictions on the list, notably Guatemala, which has recently brought its offshore banks into the supervisory framework.

The FATF also welcomed the successful conclusion of a 12-month pilot programme with the IMF and the World Bank in which the two institutions have used the FATF's recommendations to counter money laundering and terrorist financing.

A seminar before the FATF plenary meeting, attended by 44 countries, agreed that the international community must improve mechanisms to collect and share information on terrorism financing. ■

- The FATF is an independent intergovernmental body whose secretariat is based at the OECD. For more on the work of the FATF see www.fatf-gafi.org

A + B + C



The Basic Equation

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Building the knowledge society

Noel Dempsey, Minister for Education and Science, Ireland, and Chair of the 2004 Meeting of OECD Education Ministers*

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These are important times for education in all the member countries of the OECD. The never-ending search for competitive advantage in the global knowledge economy has led all public policy-makers to focus on education as a key factor in strengthening competitiveness, employment and social cohesion. This is an inevitable consequence of the increasing complexity of all our economies. Indeed, the pace of technological change worldwide is now so fast that, to a large extent, we must plan for the unknown. The only certainty is that education needs to drive these changes. If it does not, then we are all in trouble and we will fail our citizens.

For education policy-makers, the challenge is to rise above the tendency to

compartmentalise policy. We must fully recognise the connections that bind together the various public policies which have an impact on learners of all ages, and we must be externally focused and alert to positive initiatives and developments which take place in other policy areas. In short, we cannot and must not seek to stand apart from change.

For policy-makers outside the education sector, who may be tempted to see education in purely economic terms, the challenge is to recognise that the primary purpose of education is to provide everyone with the opportunity to achieve their fullest potential, both as individuals and as a member of society. We may be living in the knowledge society but, of



Minister Noel Dempsey

course, it is not only knowledge workers who contribute to society. Far from it. In addition to technological skills, competencies in creativity, tolerance, appreciation of diversity and social skills form an important part of any high quality education system.

Ireland currently holds the presidency of the European Union and I know from ministerial colleagues in other member states and the accession countries that getting the balance right between the needs of the economy and the wider social aims of education systems is one of the most significant challenges facing education policy-makers over the next 10 years. This inter-connection between the economic and social aspects of education is reflected in the theme I have chosen for the education element of Ireland's presidency of the EU: "Building an Inclusive and Competitive Europe".

This is taking place against the background of education becoming a tradable commodity. Every day individual learners are making choices about

The recent establishment of a separate Education Directorate is further recognition by the OECD of the central role which education now plays in economic and social development. Shortly after the Education Directorate was set up, Ireland hosted the first meeting of Education Chief Executives to discuss the role of education in the OECD context. In March, I will host the Meeting of OECD Education Ministers in Dublin which will focus on raising the quality of learning for all. This meeting is linked to our EU presidency's programme of activities and underlines the very close working relations the European Commission now has with the OECD in the field of education. Ireland has been a very strong supporter of further developing the links between the two organisations, which we see as essential in the face of the huge challenges which lie ahead for education.

The knowledge society is still in its infancy and the focus on education by all parties is set to increase even further over the coming years. The challenge for education policy-makers will be to develop education

The world will not stand still while we in the education sector decide which is the best way to go.

education programmes delivered across national boundaries and from a variety of education providers, often through technological media. This phenomenon has huge implications for mutual recognition of qualifications, quality assurance and accreditation. The world will not stand still while we in the education sector decide which is the best way to go.

The OECD continues to play a pivotal role in assisting policy-makers. The organisation's dedication over many years to high-quality research leading to collective discussion and analysis of policy has earned it an extraordinarily high level of public respect and trust. In Ireland, its publications are eagerly awaited and are always covered extensively in the national media. I know this mirrors the position in many other countries.

systems that support sustainable economic well-being without losing sight of the wider social consequences. Discussing the issues with each other, strengthening the links between the OECD and other organisations, and maintaining a strong bias towards research-based action represents the best approach to achieving this balance. ■

*The 2004 Meeting of OECD Education Ministers, under the title "Raising the Quality of Learning for All", takes place in Dublin, Ireland, on 19 March 2004. It will be preceded by the Forum on Education and Social Cohesion on 18 March. For more, see www.oecd.org/edumin2004

References

- Visit the Irish Department of Education and Science, at www.education.ie
- The OECD Education Directorate www.oecd.org/edu
- For more on the Irish EU presidency, visit www.eu2004.ie

Quality education Is the sky the limit?

Barry McGaw, Director, OECD Education Directorate

Education systems are being examined. And individual countries are finding they can improve their performances by learning from others. What are the key lessons?

Higher grades, better students? Or higher grades, lower standards? When more students achieve high exam grades, some claim the credit for supposedly better education systems. Others suggest that requirements must have been lowered. Behind these suspicions, there is usually a belief that somehow there is a natural ceiling to overall performance in education. This would be a mistaken view. We can lift our sights in education, just as in other human activities.

International comparisons make this clear. By showing how much better some countries do than others, they provide evidence that improvement is possible. It is a matter of raising expectations – and expectations matter for progress, both for individuals and countries. Ask a US parent or teacher why a student is doing badly in mathematics, and you are likely to hear that it is to do with intelligence. Ask the same question in Japan or Korea, and parents and teachers will generally blame the student for lack of effort. In some countries, parents blame the teachers.



International comparisons can help to raise expectations. The OECD's Programme for International Student Assessment (PISA) of achievements by 15-year-olds in reading, mathematics and science has done a lot to open up this issue. PISA 2000 showed that even some of the best performing countries in the world have gaps between high and low performers and between students from socially advantaged and socially disadvantaged backgrounds. In the UK's case, for instance, these gaps were much greater than in many other countries. Yet "high-quality" and "low equity" do not have to go hand in hand. Other countries like Finland, Canada, Japan and Korea

showed that high-quality/high-equity results are possible. Ireland's results were high-quality in reading, though only average in mathematics, with moderate-equity, just better than the OECD average.

To date, countries' reactions to PISA have varied considerably. Germany's poor performance has provoked an intense debate, particularly about its streaming of students at age 11 into different types of schools. To understand its PISA results better, Germany commissioned a multilateral study among countries with which it wanted more detailed comparisons. Denmark initiated a review of its education policies in relation to those of Finland, a

significantly higher performer. Others have enhanced monitoring of their systems. Mexico has established a new evaluation institute, independent of its Department of Public Education. Canada now uses PISA for its monitoring of language, mathematics and science and applies it domestically to cover other subject areas. Some countries assess all students, rather than just a sample as provided for by PISA. That enables them to monitor both the system as a whole and individual schools, where many key decisions affecting students' learning are made.

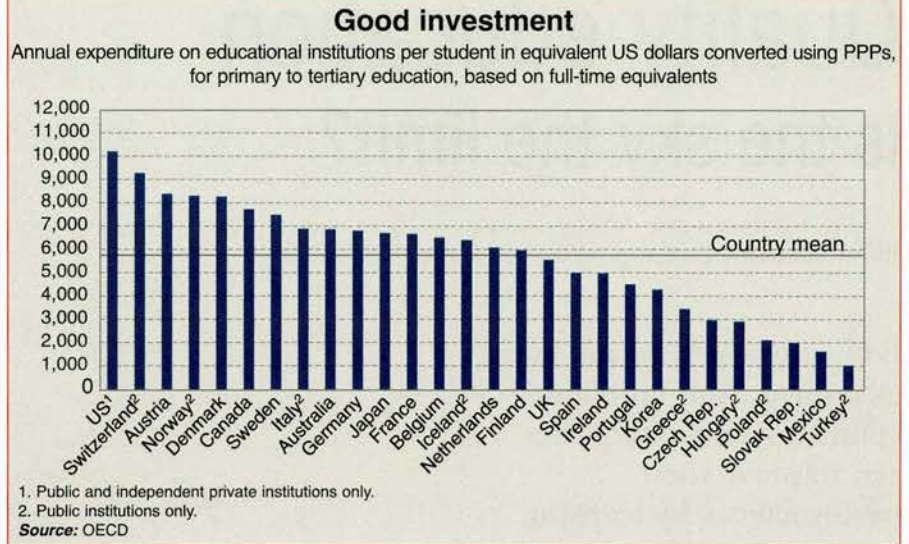
In parallel, countries are defining their expectations more clearly. Since PISA 2000, Germany has developed a national curriculum framework, with benchmarks for student performance. Spain, another relatively poor performer on average but one with relatively equitable outcomes, is seeking to improve its higher performers, by pursuing high quality, and accepting that this will probably be at the expense of equity in the first phase.

Finland, the highest achiever in PISA 2000, defines targets centrally, provides support and monitors schools but leaves to schools

Resources matter, but they are not sufficient. Classroom organisation, innovation, methods: these are all fundamental.

choices about how the targets are to be met. England, after developing centralised strategies for its initial successful efforts to improve performance in English language and mathematics, is now seeking to give more freedom to teachers and schools in determining the means to achieve improvements.

The US is giving special emphasis to low-performing groups. It has a larger percentage of high performers than many countries which outperform it, on average, in PISA. But it has a large percentage of low performers, too. Under new federal legislation, schools and states are required not only to produce overall improvements, but also improvements for currently disadvantaged ethnic minorities.



So is the sky the limit, or is there a ceiling for quality? Comparisons between countries show that improvements can be made.

Resources matter, but they are not sufficient. Higher levels of expenditure per student are generally associated with higher levels of student achievement, but there is great variation in the efficiency of systems. Finland, Ireland and the UK, for example, spend less than France,

What is needed is a more systematic approach on the ground, one that involves teachers in the research that will shape their practice.

This is clearly the case in Finland, where teachers have played a front-stage role in that country's success. Teaching is a high-status profession there. Entry to teacher education is highly competitive, all graduate with master's degrees, and they are given considerable freedom to innovate in their professional practice. The Finnish system has abolished streaming and grade repetition. Students in difficulty are not passed off to others.

All 30 OECD countries and more than 20 others are already using PISA to monitor performance. Results from 2003 will be available in December this year, and work for 2006 is already under way.

Building a complete picture of what works by obtaining improved results is a sure way to raise standards everywhere. It will take time, and it is a complex exercise. But without such evidence, we are vulnerable to impressions and prejudice, and these are not a clever basis for good policy-making. ■

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- See also www.oecd.org/edu and www.oecdobserver.org/education

Teaching

Restoring its class

Phillip McKenzie, OECD Education Directorate

Has teaching lost its appeal as a career choice? There are many indications that it has. But governments can take action.

Teaching is now having to compete more vigorously for talented new recruits than perhaps at any time in the past 20 or so years. During the 1980s and much of the 1990s most OECD countries had relatively stable school enrolments and a young teaching force. But the situation has changed markedly as the workforce has aged. Many countries now experience, or will shortly face, teacher shortages.

In a number of countries the teacher workforce is ageing – on average, 30% of secondary teachers are over 50 years old – retirements and resignations are increasing, and vacancies are proving hard to fill, especially in areas like IT, mathematics, languages and science. There are indications that teachers' salaries have fallen relative to many other professions. Between 1996 and 2001, the salary of an experienced lower secondary teacher grew more slowly than GDP per capita in 16 of the 21 OECD countries with relevant data. As societies have grown wealthier and better educated, teachers have lost some of their "scarcity value". Moreover, most teachers are state employees, and in many countries wages have grown more slowly for public sector workers than for those in the private sector.

A shortage in the number of teachers raises quality difficulties as well. An OECD study, the 2000 Programme for International Student Assessment

(PISA), showed that in half of the OECD countries, a majority of 15-year-olds were attending schools where principals believe that student learning is hindered by a teacher shortage or inadequacy. Policy-makers, schools and the wider community are right to be concerned.

But all is not gloom. Teachers' social standing still appears high in some countries, and there are more qualified applicants than vacant posts in countries such as Austria, Japan, Korea and Spain. Elsewhere, there are signs of an upturn in interest in teaching. In 10 of the 14 OECD countries with relevant data, the proportion of secondary teachers aged less than 30 increased between 1998 and 2001.

Encouraging trends indeed, and they can be built on by tackling the issue on two levels: on the one hand, there is the nature of the teaching profession itself, and on the other, there is a targeted response to particular shortages. The first aims to ensure that society values teachers' work, that teaching is seen as exciting and worthwhile, and that teachers' preparation and work environments are improved. The second recognises that there is not a single, uniform labour market for teachers, but a set of them, distinguished by type of school – primary, secondary, vocational and so on – and personal characteristics like gender, age,



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experience and subject specialisation. Looking at teaching as a problem of markets helps policy-makers and schools to attract particular types of people into teaching and to retain them. It also entices teachers to work in particular schools.

Pay problem

The sheer size of the teaching workforce means that to lift salaries by even a few percentage points for all teachers is very costly, not to mention the possible flow-on effects to other public sector workers. As small salary rises across the profession would have little impact on recruitment problems, a number of countries that have been experiencing shortages have concentrated salary rises on those in the early stages of their careers. This has been done in Australia, Denmark, England and Norway, for example. Each of these countries has reported an increase in teacher training numbers and, in Australia and England at least, there is some evidence of an increase in the academic quality of those studying teacher education. On the other hand, the main concern in some countries, like Greece and Hungary, has been retaining teachers in schools, and pay rises have been targeted to more experienced teachers.

The market is a diverse place, and although a single salary scale is still the predominant approach in most OECD countries, it is being increasingly differentiated to reflect market conditions. Sweden probably provides one of the most marked examples of change, having moved from a uniform national salary scale to individualised pay negotiations between teachers and their employers in schools and local municipalities, the aim being to improve school flexibility and involve teachers more in decision-making (see article by Anna Söderberg, page 17).

There is now also generally greater use of extra incentives in order to compensate teachers for working under particularly trying conditions. Incentives such as salary allowances for teaching in difficult areas, transportation assistance for teachers in remote areas, or bonuses for working in challenging schools are now more common. At least two thirds of OECD countries offer salary increases for taking

on management responsibilities in addition to teaching, teaching more classes or hours than a standard load, and teaching in a disadvantaged, remote or high-cost area.

Although attractive salaries can improve teaching's appeal, policy needs to address more than pay. Teachers place a lot of importance on the quality of their relations with students and colleagues, on feeling valued and supported by school leaders, on good working conditions and opportunities to develop their skills. Such factors go to the heart of the way that schools and teaching are organised.

Broader appeal

Introducing special programmes and incentives to attract more teachers for subjects such as mathematics, science and technology is one approach being tried in some countries facing particular shortages. Fee waivers, scholarships and forgivable loans are some of the financial incentives being offered. In France, for instance, scholarships may provide a decent salary to trainee teachers, so long as they commit to teach for a minimum period after graduation.

Attracting new sorts of people into teaching helps not only to tackle shortages, but improve the skill mix in schools as well. Reforms are making teacher education programmes more open to a wider range of people, and enabling academically qualified people to start teaching (and earning a salary) without necessarily having first completed teacher training.

Both the Flemish and French-speaking communities in Belgium make it possible to train as a teacher in adult education institutions that offer very flexible terms. There are no fixed entry qualifications to these courses and many of those taking these routes are mature students, often in the process of changing careers, who fit the training around other jobs or around employment as an unqualified teacher. In the United States, "alternative certification" programmes allow academically well-qualified individuals to start working in schools and to reduce some of the requirements of formal teacher preparation and state certification.

Although attractive salaries are important to improving teaching's appeal, policy needs to address more than pay.



The results have been positive. One large Australian university reports that not only have enrolments in its graduate diploma course for secondary mathematics teachers doubled in three years, but the average age is 31, and a quarter have had previous full-time employment, the majority in engineering. Data from the United States indicate that the average age of new entrants to the teaching profession has increased, suggesting that people are pursuing other careers before they enter teaching. In 1993-94, 65% of newly hired teachers were over the age of 25, compared with 52% in 1987-88.

In fact, the problems some countries face with teacher supply are more to do with the high turnover experienced in the early years of a career than with a shortage of qualified new entrants. So, whatever the teacher's background, making a good start in the job is vital. Policies to attract more people to start in teaching clearly must address the factors that cause new teachers to leave. Some countries, including Ireland and Italy, are acting on this, for instance by providing special induction programmes with trained mentors, and making formal induction a recognised stage in the career.

Over-supply

Not all countries currently face teacher shortages – Japan reports that they currently have around 10 applicants for each vacant teaching position. Korea and Spain are other countries with many more applicants than teaching vacancies. But they face policy challenges nonetheless, since all countries report concerns about ensuring that their existing teacher workforce has the skills and knowledge needed to meet the demands of modern schooling and more diverse student populations. It is also important to ensure that able and motivated people can find positions and are not lost to the profession. This is not easy to achieve in a situation of teacher over-supply, but it is vital.

One approach is to use selection procedures that ensure that the most suitable people obtain the posts. In Japan, many boards of education have broadened



Trust the teacher

their selection criteria beyond reliance on exam results. Candidates are interviewed and are required to undergo aptitude tests, prepare lesson plans and demonstrate their teaching skills. The job interview has become a more important element in the selection process.

As another country with a relatively centralised system of teacher selection, France has reduced the weight accorded to seniority in determining which candidates are appointed to teaching vacancies. This is intended to address the concern that beginning teachers are assigned to the more difficult and unpopular schools, with risks for both student learning and their own career development. The new approach promises to make teaching more popular among young people too.

But over-supply is not the norm, and many countries will face shortages in the

future, unless they can make teaching a more attractive option in a labour market that provides so many other opportunities for well-qualified people. This raises some difficult policy trade-offs. Most school systems have reduced average class sizes in recent years and are under pressure to reduce them further. Yet, while targeted class size reductions can be beneficial for some students, across-the-board reductions in class size are expensive and unlikely to lead to substantial gains in terms of learning. Scarce resources should be used in other ways to boost the attractiveness of teaching and the effectiveness of those in the profession. ■

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Bowling together

Social science research and international organisations are awash with jargon that many non-specialists find either confusing or unhelpful. Can this be said of the notion of social capital? According to Robert D. Putnam, Peter and Isabel Malkin Professor of Public Policy at the JFK School of Government at Harvard, and author of the influential book, *Bowling Alone*, social capital is an idea whose time has come. Indeed, a decade ago, there was only one research article every three years written worldwide about it; last year alone, there were 300. What exactly is social capital and how can it help policy-makers? Dr Putnam found time between international conferences and transcontinental airports to tell us.



Q Dr Putnam, what exactly is social capital?

A As would be true of any new concept whose use has exploded exponentially in a short space of time, people use the term in a variety of ways. But I would insist on a lean and mean definition: social capital refers to social networks and the associated norms of reciprocity.

The core idea is very simple: Social networks have value. They have value to people in the networks – “networking” is demonstrably a good career strategy, for example. But they also have “externalities,” that is, effects on bystanders. Dense social networks – barbecues or dinner parties or whatever – in a neighbourhood can deter crime, even benefiting local people who don’t themselves go to the barbecues.

Not all externalities are positive. Some networks have been used to raise finance for terrorism. Just as human and physical capital – through knowledge of chemistry or aircraft, for instance – can be used for bad purposes, so can social capital.

Moreover, social capital comes in many forms, not all fungible. A dentist’s drill and an oil-rigger’s drill are not interchangeable. Similarly, we need to distinguish among different types of social capital, like the difference between “bonding” social capital – these are links among people who are similar in ethnicity, age, social class, or whatever – and “bridging” social capital, which are links that cut across various lines of social cleavage.

But the main point is that social networks can be a powerful asset, both for individuals and for communities.

Q The idea of social capital has not been without its critics. Where do you see its particular strengths and weaknesses?

A Naturally all theories are open to question, even the general equilibrium idea in mainstream economics. I’ve heard three broad complaints about social capital. First, it is theoretically sloppy; second, the evidence of causal direction is weak; and third, it has no policy levers.

It’s true, as I said before, that in the early days of the idea there was a certain “irrational exuberance” among some enthusiasts, such that anything good was termed “social capital,” but throughout the last decade, careful researchers have converged toward a rigorous core concept. The central theses that social networks have effects on information flow and that repeated interactions in networks can help resolve dilemmas of collective action are entirely consistent with conventional economic theory. Even the idea that networks can affect “identity” – if I interact more often with a group, I’m more likely to take their interests into account – is akin to some recent work on “endogenous preferences” in economic theory.

Advocates of the “social capital” lens have reported many robust correlations between vibrant social networks and outcomes like better school performance, lower crime rates, better public health, reduced political corruption, improved market performance, and so on. For example, several recent sophisticated econometric studies in Italy have shown that places with higher social capital have more efficient capital and

labour markets, exactly as the theory would predict, even after controlling for all the other factors that might be thought relevant.

But that does not prove causation. This will be hard to do, since it's not easy to imagine an experiment in which some people are required to have friends or attend church or whatever, and others are required not to.

I entirely agree with critics who say that we need to be as rigorous as possible, and I've been encouraged by efforts within the OECD to develop more sophisticated, cross-country measurements of different forms of social capital. Still, I believe that sufficient hard evidence is accumulating on the importance of social connectedness or social cohesion or, as I prefer, social capital, that policy-makers should not have to wait for a couple of decades of detailed research before asking whether attentiveness to social capital might be worth their while.

As for those policy levers, what can we actually do about social capital, assuming that it is a relevant factor? Here I want first to record my strong disagreement with the view, sometimes heard, that *Bowling Alone* is

Q How might the idea of social capital apply to education?

A More work is needed on this, but we know some domains that seem highly promising. A few ideas spring to mind, though, I stress, these do not apply just to education, but to policy levers across a wide spectrum.

Let's start with human capital and social capital. These are clearly linked in a kind of virtuous circle, with education tending to increase social capital and at the same time social capital tending to increase educational performance. The decline in social capital in the US might have been even sharper had it not been for the quality and strength of our higher education. Still, more is needed. Civics courses, community service requirements and even extracurricular activities like sports and music, have been shown to have long-term effects on the civic engagement of those students who have been exposed to them.

Social capital formation also requires careful thought about space. Schools, but also offices, housing developments and entire cities need to be designed with an eye toward how architecture (in the large and the small) can encourage easy, casual

the closing of post offices in small towns and rural areas. In the US, some have experimented with the notion of "social capital impact assessment" for major policy initiatives, so that, for instance, when putting in a major new expressway system, one at least considers how the result will affect social networks.

Governments should understand that investing in social capital requires time. As our labour markets develop – especially as more women go out to work – and as technology expands, greater flexibility on the part of employers can allow employees to better reconcile professional demands with the needs of family and community.

Q Is the US situation different to other OECD countries?

A In *Bowling Alone*, I argued that many, many forms of social capital – ties to family and friends, civic associations, political parties, labour unions, religious groups, and so on – have been in decline in the US over the last 30-40 years, after having risen for most of the 20th century. Many people in other countries feel that a similar decay in community and family bonds has occurred there, too. But I have never claimed that social capital is synchronised to a single global metronome. The year 1945 (or the year 1989) meant very different things in the social and political life of the US or France or Poland or Ireland. For instance, the timing and pace of the introduction of television, which was an important influence on social connections, differed markedly from place to place. So, it is worth paying attention to social networks and norms of reciprocity, whether or not the trends are up or down in a particular country at a particular moment.

Visit Dr Putnam's Harvard web page at <http://www.ksg.harvard.edu/saguaro/>

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Policy-makers should not have to wait for a couple of decades of detailed research before asking whether attentiveness to social capital might be worth their while.

an argument for shutting down the welfare state and relying on civil society to solve problems. Nothing could be further from the truth. More than 10 years ago, in my very first essay on the topic of "social capital and public affairs" I wrote (with emphasis in the original):

"Social capital is not a substitute for effective public policy, but rather a prerequisite for it and, in part, a consequence of it. Social capital, as our Italian study suggests, works through and with states and markets, not in place of them. The social capital approach is neither an argument for cultural determinism nor an excuse to blame the victim.... Wise policy can encourage social capital formation, and social capital itself enhances the effectiveness of government action..."

connections among people who might otherwise find themselves in isolated niches.

Another lever relates to scale. Most research suggests that "smaller is better" from a social capital point of view, with smaller towns, smaller firms and smaller classrooms. We need to think carefully about how to encourage decentralisation and empower grassroots organisations in all walks of life, while at the same time retaining some of the advantages of economies of scale. "Subsidiarity" as a design principle is relevant here, as are "cellular" organisations, like "schools within schools" in which smaller groups are nested within larger ones.

The trouble is that government policies can inadvertently "destroy" social capital. Think of

Brain waves

OECD Centre for Educational Research and Innovation

Where were you when the Twin Towers collapsed? Can you remember receiving your first diploma, your first bicycle or your first kiss?

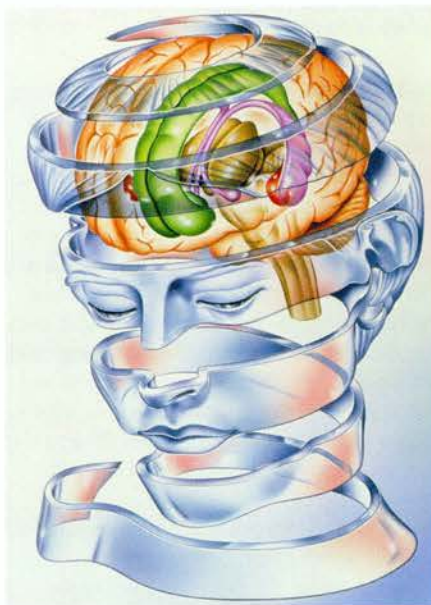
Emotional imprints like these may do more than generate mental images that create pain or delight. Scientists now think they could influence learning.

Most teachers would agree that students participate in class and learn best when in a relaxed, yet motivated, environment. The opposite is also true: fear or anxiety can inhibit learning and educational performance. But addressing the classroom environment alone is not enough. Neuroscientists believe they know why.

At a recent OECD-CERI* symposium in Ulm, Germany, experts examined the link between emotions, learning and the brain. Two specific parts of the brain were of particular interest: the hippocampus, which among other things functions as an interface between short and long-term memory, and is crucial to storing information; and the amygdala, which is involved in assigning emotional significance to events, and is especially engaged in the management of fear.

As Bruno della Chiesa, co-ordinator of the OECD-CERI project, explains, if you confront a dangerous bull, for instance, the amygdala will take over and inhibit reasoning. This way, you become more effective trying to run away. Under stress, transmission of information to the neocortex (the grey matter of the brain) either does not happen, or at least, not normally or optimally. Later on, you might recollect coming face to face with the animal, but forget what happened immediately before or after.

Dangerous animals are rare in the classroom, but they have emotional counterparts, like teachers, other students, or the learning materials themselves, such as books or



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computers. There may be external negative influences, such as family breakdown, terrorism, play yard violence, even influences from entertainment or the media, etc, which can disturb the emotional stability of kids.

Put simply, whereas fear is detrimental to motivation and learning, pleasure is positively related to motivation. As David Servan-Schreiber, of the University of Pittsburgh School of Medicine, emphasised at the Ulm symposium, students simply "cannot process information as required in schools if we don't have a handle on the interaction between emotional arousal and brain function". He pointed out that what we do to our bodies directly affects the brain's ability to function in a learning capacity. Diet may also be crucial, he said, as it is responsible for fabricating that 20% of our brains which is made up of fatty acids.

Studies have been carried out on the effects of nutrition on behaviour, including one in prisons by Alex Richardson of the University Laboratory of Physiology at Oxford, which detected a 35% reduction of violent acts after inmates were simply given

a nutritional supplement to compensate for what is lacking in institutional kitchens.

By understanding neurofunctional mechanisms and processes, sensible educational programmes could be devised to help train up emotional intelligence, so enhancing the learning capacity of the brain. Slower learners can be trained away from their fears and blockages, opening the way to absorbing and processing information more easily. This demands effort from educators.

Various learning therapy interventions to cope with stress and enhance emotional intelligence and stability are already being incorporated in school's programmes. The British government recently identified 25 education authorities which will test and implement pilot emotional literacy programmes. And in Denmark a number of schools and day-care centres are participating in a Play and Learning Consortium, which explores the relationship between body, mind, cognition and learning.

Social and domestic influences clearly count, but rather than just teach, our brain waves show that educators and policy-makers should address emotional influences in the classroom too. ■

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* The OECD-CERI project, Learning Sciences and Brain Research, aims to bridge neurosciences with educational policy and practice, setting an agenda for joint research. If you have questions on neuroscience and education, why not join the OECD Brain and Learning Club, where the public is invited to pose questions to the CERI panel of scientists and educators? These are then posted on the website. The site's Q&A page is diverse, covering everything from learning a language and reading fluency, to age-related learning and dementia. See www.oecd.org/edu/brain

The global school

Anna Söderberg, Head, Husbygårds school, Kista (Stockholm), Sweden

Educating children is vital for maintaining our standard of living now and in the future. This thought is not new and most of us are well aware of it. What is new is the way we need to work to prepare our children for that future. Key challenges that spring to my mind include globalisation, migration, war and terrorism, and disease. These issues are more immediate in children's lives than ever before. Like the global village, our schools have become global too.

The problems Swedish schools face today are quite different from those of just 25 years ago. The school I run is a multi-cultural state-funded primary school where all of our pupils or their parents come from various countries abroad. The world is in our classrooms, and yet we are expected to strive towards the same exacting standards with the same curriculum as others in Sweden. We are not alone and it puts the teaching profession and the entire school system in the spotlight.

There are three main challenges: organisation, pupil empowerment in their own work, and co-operation between different pedagogical professions. Fifteen years ago teachers worked alone. They were at the front of the classroom, symbols of knowledge and authority. But today, more than one person is needed to help pupils reach the goals we set for them. This makes organisation very important.

At our school, teachers, pre-school teachers and recreational educationalists or pedagogues work together in teams. Letting go of that control has not been easy for some, but in today's demanding educational scene, teachers have no choice but to share tasks, not just for the kids' sake, but for their own too.

Each teacher at Husbygårds school receives a clear mission statement in writing: they are co-workers along with the principal and other staff, and our joint job is to educate. We make this clear to every teacher under

my authority. We discuss and reach agreement on goals. There are six performance categories: ability to co-operate; competence; leadership; communication skills; effort and results; and responsibility. We treat teaching as a results-driven profession. That is why better teachers at Husbygårds school earn a higher bonus than less-performing ones.

Husbygårds school is governed by public policy targets. Reaching them is like walking through a minefield. You have to be a strategist and you need a leader who can set priorities, make tough decisions and still inspire in everyone a sense of pride in this hugely important profession.

Teaching people of many different religions is rewarding, but we must deal with what happens in the world, in the Middle East, in Africa. And we must teach Swedish to students who together speak some 40 other tongues. Still, our approach pays off. Our student performance has been very good, not least in Swedish. And our teacher turnover is low.

On top of academic performance, we have to worry about funding. This is a burden policy-makers could help us more with. The system takes time and administration costs us about Skr4 million a year. This pressure forces us to severely limit the number of new teachers we employ.

The management burden eats into my time for pedagogical development and teacher support. This is a pity, since in any OECD country, developing competence and knowledge is surely where the priority should lie.

Another job is to oversee and train new teachers. Is our teacher training system able to cope? Sometimes when we meet teacher candidates, we are forced to wonder. Shouldn't those who work in today's schools mould the



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teachers of tomorrow, not outmoded training colleges?

A new direction for our teaching academies is needed. A successful teacher is one who learns in the classroom. We need to work with children, yes, but also interact with historians, mathematicians, scientists and other professionals who might help students understand and enjoy school. Happiness is a necessary ingredient for our multicultural schools.

This interaction does not happen enough. Kista, where our school is located, is a kind of Silicon Valley near Stockholm, yet we have almost no contact with firms in the area. At the same time, our joint priority must be the welfare and happiness of the children. A system that fosters learning is more likely to lead to a successful economy over time.

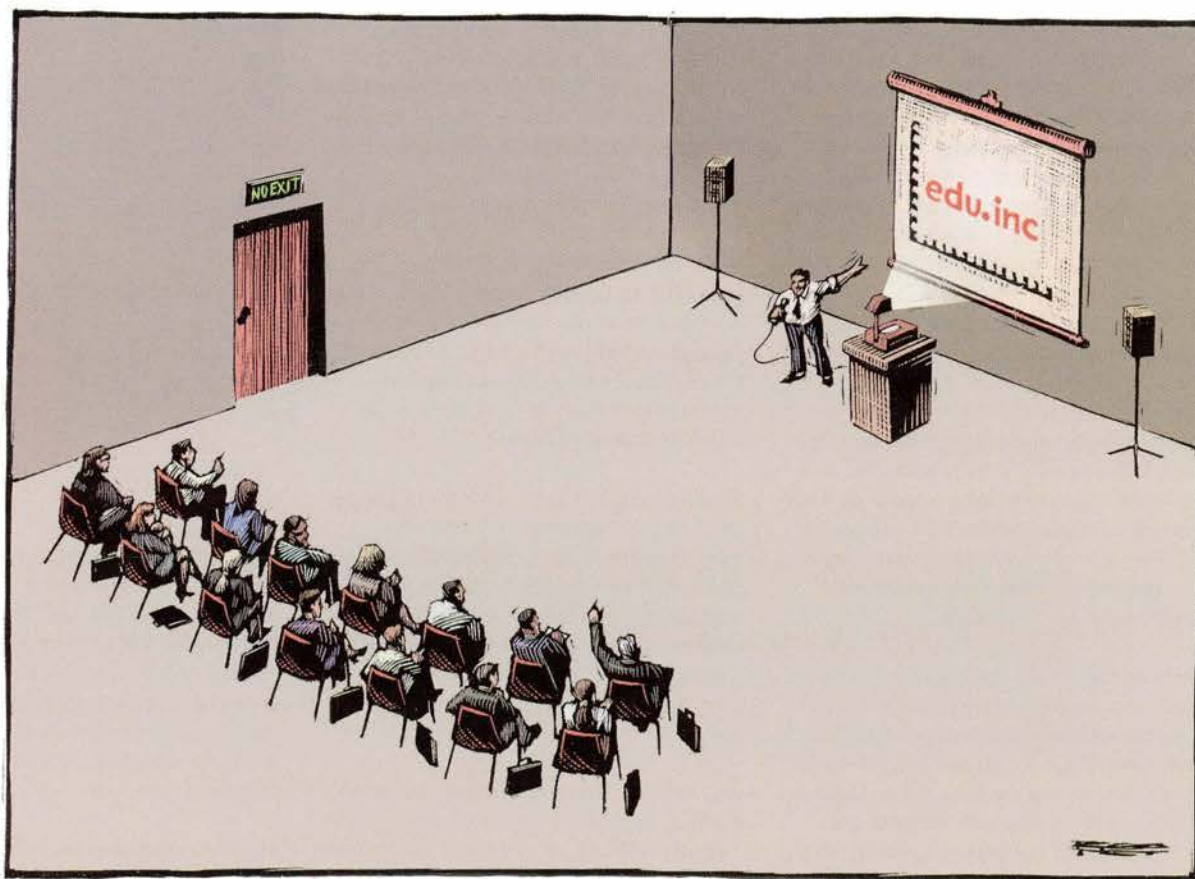
The children we teach today are more diverse than we ever were. Tomorrow is their world and it is unknown territory. We must help them develop the knowledge they need to move ahead. ■

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Business Partners for smarter education

Thomas R. Vant, Secretary-General, Business and Industry Advisory Committee (BIAC) to the OECD



When a company makes a decision to invest, one of the most important factors is the quality of the workforce. Every entrepreneur is aware of this; business literature is rich in accounts of capital investments that went wrong because of some mismatch with the local labour pool. Governments, businesses, people: we all lose when that happens. We all gain from a good match.

And once in business, education and training of employees remain key to

competitiveness. Employees are a company's most important asset, since they make the mix of resources and circumstances available to a company work best.

Facing today's global and complex marketplace, companies need to be able to respond rapidly to change – this requires employees who are flexible and adaptable to demands for new skills. Firms are always looking for young people who combine good basic training with professional and personal flexibility and scope.

Business looks for the same potential in their employees that young people look for in their educational institutions – meeting quality standards of education; preparing students for a future employment landscape that will be continually changing; staying ahead of the curve in the technology area; and offering courses that lead to promising career opportunities.

It is a competitive world, with changing demands. Young people rely on their institutions to assess those demands and build them into a flexible curriculum. There

is a clear need to prepare students with the technical, cultural and social skills they will require throughout their professional careers.

Business can help. Many companies are deeply involved in helping educational institutions with the assessment of attributes that employers will be looking for in their recruits in coming years. They consider the skills that will be in demand; the breadth of education required for different areas of work; the timing of opportunities and the number that are likely to become available.

It only makes sense for business and educational institutions to share this information, and it certainly makes sense to serve the decision-making process of students. Many companies have no problem in justifying the value gained by being part of this exchange.

My former company was deeply involved from the top down in a broad range of initiatives of this kind. This was never thought of as an additional obligation to be put in the public relations window, but rather as a critical continuing effort to help ensure that the necessary number of people, with the right level and flexibility of skills were available to meet the company's needs.

The question is not whether or not business, in anticipating changing

business environments, can anticipate needs in education. This is something that comes out of any sound business's long-range planning exercise. The question is more about whether solid, interactive relationships can be established involving government, educational institutions and business. These relationships, of course,

Education is not an additional obligation to be put in the public relations window, but rather as a critical continuing effort.

take work. And we must stay with this year after year as confidence is built up in the ongoing value of putting this vital effort into the process.

While government has the primary responsibility for initial education, business needs to work with governments and educational institutions to assist in providing clear goals for education that prepares students for today's global market. In secondary and higher education, this includes working together with schools to promote an understanding of the current state of the industry through measures such as internship programmes, teaching exchanges,

provision of case materials, opportunities for company visits and engagement in career guidance.

From a business perspective, instilling basic skills and competencies, using a modern curriculum, attractive teaching materials, career guidance support and highly qualified and enthusiastic teachers is essential. However, preparing students to continue learning throughout life should be the major goal of both initial, and also higher, education.

BIAC is in the engine room of public policy shaping at the OECD. We consider the development of human and social capital to be one of our common strategic priorities. Quality education, incorporating the flexibility needed for achievement, is an essential ingredient to realising the benefits of sustainable economic growth and should remain a top priority for all. ■

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Dr Chairman



Irishman Peter Sutherland has had quite a career in both international policy-making and business. From top jobs as European commissioner for competition policy and director-general of the GATT, and founding chief of the WTO to chairmanships at Goldman Sachs International and BP, Dr Sutherland's CV is indeed outstanding. So much so, in fact, that a new centre was named after him at Trinity College Dublin in December 2002.

Called the Sutherland Centre, it houses the Institute for International Integration Studies (IIIS), specialising in trade and globalisation. Dr Sutherland, himself educated at University College Dublin, actively supported the foundation of the IIIS, including with a generous donation. Other funds came from the Coca-Cola Company, a German bank, DePfa, and a US philanthropist, Chuck Feeney, as well as Ireland's Higher Education Authority.

By providing research space and conference facilities, the Sutherland Centre at Trinity will no doubt generate outstanding CVs for years to come. *RJC* ■

A test too far

Roland Schneider, Senior Policy Advisor, Trade Union Advisory Committee (TUAC) to the OECD

There may be no magic bullet for raising student achievement. Nor is there any getting away from having to invest in teaching and learning. Testing does not provide the full answer.



Who would disagree that education and training are among the most significant investments a society can make for its own development? Not many, though it begs the question: why, then, have so many countries allowed public investment in education and training to lag growth in national wealth? How ironic that OECD countries should all have experienced an unprecedented economic boom we know to have been knowledge-driven, yet, rather than investing more in learning, we allow schools to become a new prime target for budget-conscious politicians to scrutinise and cut in the name of betterment.

Even some so-called left-leaning governments have chopped public investment in schools by offering a menu of false alternatives, from performance testing of young children, to vouchers for parents to "spend" in schools of their choice, as though they really had a choice. Weeding out underperforming teachers has been another new strategy, though one that risks blaming a victim. Teachers often need help, not punishment.

At the end of the day, to improve education and raise standards, as everyone from taxpayers to educators wants to do, investment has to be increased. True, more funding in itself is not sufficient to improve the quality of education, as the results from

the OECD Programme for International Student Assessment (PISA) suggest. But neither is it convincing to infer that decreased funding will somehow lead to improving the quality of learning and teaching. It certainly will not.

Trade unions support the goal of boosting the educational achievements of students. However, is compulsory nationwide testing

The OECD promotes the same advice for education as it does for the energy industry: that efficiency means extracting more from less, whereas in education we must derive more, but put in a necessary minimum.

for students and teachers the way to go? This one-size-fits-all approach is a school cane in the hand of demagogues, and it is quite dangerous to apply it in a modern world of diverse knowledge needs, growing competition and widening inequity within and between countries. Let's face it: tests are open to abuse and misinterpretation. Moreover, many of the qualities required for successful and effective teaching – passion, dedication and satisfaction of teaching – are qualities that cannot be captured by a test.

Still, higher educational achievement is possible, everyone is united on that. However, simply raising performance standards in order to achieve better educational outcomes is not going to work. You cannot expect a "formula one" performance from a regular car. The concept of raising the quality of learning and teaching must be linked to investing in the inputs. And that includes equity, by ensuring that teachers are equipped and that no student is left behind, and that all students are covered by the curriculum.

In too many instances, education policy-makers are viewing standards as just another top-down reform, divorced from the needs and realities of the classroom. Moreover, they are paying too little attention to developing the curriculum needed for achieving those standards. The professional development and support required for children at risk are often either unavailable or of questionable quality. Tests unrelated to the standards and curricula, like multiple-choice tests designed to measure how well a person has learned a specific set of information, are being imposed with negative consequences on students, teachers and schools.

If we want every student to reach higher standards, education policy-makers and governments must pay more attention to proper implementation. Underperformance

is rarely entirely the fault of young people. Sufficient resources must be made available to get the job done properly. Teachers (as well as parents) must understand what the goals are and how to reach them. They must be offered opportunities for professional development that focus on knowledge formation, effective and innovative instruction, and acquiring the assessment tools necessary for helping young people to make progress toward meeting higher standards.

Governments have a role to play to ensure that teachers and their unions have a voice in the development of standards and in how to align curricula to meet learning objectives. Expecting teachers to stay out of the development, implementation and evaluation of standardised tests infuriates and demoralises the profession. It is a strategy whose logic would fail any test. Governments must provide resources to ensure that all children, especially those in poor areas, have properly trained teachers who get the additional support and time they need to reach their own goals and ambitions. This is not rocket science, just common sense.

The call for raising the quality of learning and teaching by implementing higher standards and high-stake tests, and by making schools accountable is politically appealing. However, in the absence of a significant investment in school education and in the training of teachers that would pull all young students up to the new standards, the move to implement new testing regimes is disturbing. "High-stakes" testing, such as The Texas Assessment of Academic Skills (TAAS) that is required for graduation and used diagnostically in the lower grades, has been promoted by education policy-makers and governments as a way to raise standards, particularly among poor and disadvantaged students. However, it has been shown in a number of cases to adversely affect the quality of education for these students. Not surprisingly, members of teachers and education trade unions, education administrators and parents are worried. Listen to the administrators, who complain that these tests are making it harder, not easier, to recruit, train and keep good and

committed school teachers, particularly in the public sector.

Inside the classroom, the regime of the test is gaining dominance. Learning is oriented to simply passing the exam, rather than toward knowledge and personal development, or preparation for adult life. This is to be expected, since a rigid "pass or fail" regime – with financial carrots and sticks for educators and institutions – encourages (or scares) teachers into spending more class time drilling students to answer questions, with little left to explore the substance of the curriculum and to learn together. Can

appear better than they are for the sake of maintaining their schools.

There is a simple conclusion to be drawn from all this: policies seriously seeking to raise the quality of learning and teaching must provide more help and fewer sanctions, particularly to low performing students and schools. They must also go beyond fantasies about attainment levels and focus on the composition of the classroom and learning itself. Improve the inputs and you get a better output, which is what we need. Knowledge changes, and what matters to adults today may be irrelevant in our children's lives. It is

We must also go beyond fantasies about attainment levels and focus on the composition of the classroom and learning itself.

knowledge really be boiled down to a few Xeroxed notes and Q&As? If so, the backbone of tomorrow's knowledge-based society risks becoming very fragile indeed.

In the scramble by schools to maintain achievement levels and avoid "the drop", educators have themselves fuelled the creation and ongoing expansion of a global testing industry, with huge financial stakes and its own vested interest in further growth. More and more specialised companies, among them the publishing giant Pearson PLC, Kaplan, Inc., and The Princeton Review, to name but a few major business players, are providing schools with software and facilitators to coach students for tests. This is making test-taking a skill in itself. Passing exams is becoming more like clinching a job interview than knowing the subject. The size of the assessment industry and its rapid growth are bound up with the budget-saving agendas of every educational authority in the world. It facilitates so-called "educational reform". The OECD promotes the same advice for education as it does for the energy industry: that efficiency means extracting more from less, whereas in education we must derive more, but put in at least a necessary minimum.

Already, standard-based reforms have brought costs: rising dropout rates, demoralised and deskilled teachers, administrators manipulating their figures to

about teaching people to create and deal with new futures, not preserving static, one-size-fits-all prescriptions. Success in education is much more than about avoiding failure. Yet, the danger is that the new obsession with performance testing, rather than building knowledge, will drag everyone downwards to a safe level of competence. "Education for all" will just be another mantra. Excellence will become a privilege, genius a luxury, but society as a whole will be impoverished as a result. ■

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"Study now, pay later"

Jens Lundsgaard and Dave Turner, OECD Economics Department

The UK parliament has recently voted for the introduction of student fees as a way to fund the expansion in higher education. Could this be a model for other European countries to follow?

University funding is hitting the headlines across Europe. In January the UK government only narrowly won a parliamentary vote to reform funding of higher education, after the Prime Minister, Tony Blair, put his "authority on the line". Other European leaders will have been watching closely, as they also plan to revamp their higher education systems. In Germany the government has already caused a political outcry by calling for universities to be able to charge fees and for the establishment of elite universities. In France, the government is searching for ways to improve university funding in response to a situation summed up by *Le Monde* as "La grande misère des universités françaises" (The desperate poverty of French universities). Similar complaints about overcrowded and run-down universities are common in Italy.

Underachievement and under-funding are damaging the competitiveness and performance of higher education in several European countries. Addressing these problems was at the heart of the UK initiative. There was broad agreement that change was inevitable, particularly as maintaining a skilled and educated workforce is vital for economic growth. The controversial question was over who should provide the money.

The total amount countries spend on higher education varies widely across the OECD. Those countries that spend more than 2% of GDP on higher education – Canada, Korea, New Zealand and the United States – are able to do so because they raise a substantial share of funding from students, donations and other non-government sources. By comparison, the major



Tony Blair, the UK's prime minister, defends his vision

European countries spend about 1% of GDP and rely much more heavily on government funding, while the contribution of individual tuition fees is small or negligible. This partly reflects funding arrangements that were designed for a different era when only a small share of young people aspired to go to university.

However, over the last two decades student intake has climbed rapidly while competing demands on government expenditure have squeezed spending on higher education. Exceptions are Sweden, Finland and Denmark where expenditure on higher education is over 1.5% of GDP and is almost entirely publicly funded. However, tax rates in these Nordic countries are already high and public expenditure is likely to come under increasing pressure as their populations age. Thus even in these

countries there is a case for reforms that enable universities to be less reliant on public funding, though it is less pressing than in the major European countries where such reforms may be essential to remedy current under-funding.

Greater financial contributions from students should be an important part of these reforms. The reforms in the United Kingdom will enable universities to charge fees of up to £3,000 per year. These fees should not only help provide more resources, but are a fairer basis for funding higher education too. After all, while the economy as a whole, including its businesses, needs skills to thrive, it is the students themselves who benefit most from higher education. In France, Germany and the United Kingdom, those with a university degree earn, on average, between

60% and 80% more than those without post-compulsory education and are also at a much lower risk of being unemployed.

Nevertheless an important concern is that high up-front tuition fees might affect access to education, particularly for lower income groups. The UK's solution is to "study now, pay later", thus allowing students to defer the payment of all fees until after they have graduated. Indeed, they will only be required to repay installments or "graduate contributions" when their annual income exceeds £15,000, so providing a form of insurance against the graduate becoming unemployed or finding only a lower-paid job. Moreover, students from the lowest income backgrounds will be exempt from paying the first £1,125 of their fees and will be eligible for generous maintenance grants to cover living costs. Similar schemes have run for more than a decade in both Australia and New Zealand, and have not compromised access among less well-off students.

In New Zealand, since the introduction of student loans in 1992, participation in tertiary education has almost doubled, and the number of young people entering it is today the highest in the OECD. Moreover, the share of students from Maori and Pacific ethnic groups increased from 9% in 1990 to 24% in 2001. Australia introduced fees in 1989 and they have had little effect on the socio-economic mix of students.

Fees are a fair basis for funding higher education. After all, it is the students themselves who benefit most from it.

Fostering wider access to higher education probably depends more on investments in early childhood and compulsory schooling. Much of the rise in education spending in the UK since 1997 has gone into nursery and compulsory education, with notable improvements in schools in more disadvantaged areas. For example, the number of schools where less than two out of three students reach the expected standard for 11-year-olds has been halved since 1996. Building on these improvements, while expanding higher education based on contributions from

those who benefit from it, is the most effective way to improve equity in education.

One of the more controversial aspects of the UK reforms is that fees will vary both across different courses and universities. The intention is to provide a means by which the most successful institutions and courses can attract more funding. Experience from abroad suggests fees to study the arts may be lower than, say, for medicine, science and law.

Such variable charges may be more efficient to the extent that they better reflect both the relative costs of courses and the relative incomes which graduates will earn later. But it raises some thorny questions about whether certain courses judged important for growth, for instance, should be subsidised.

The New Zealand government, for example, is considering re-orienting public funding in order to encourage more students to sign up for courses in engineering, mathematic and computer science. Similarly there may be a

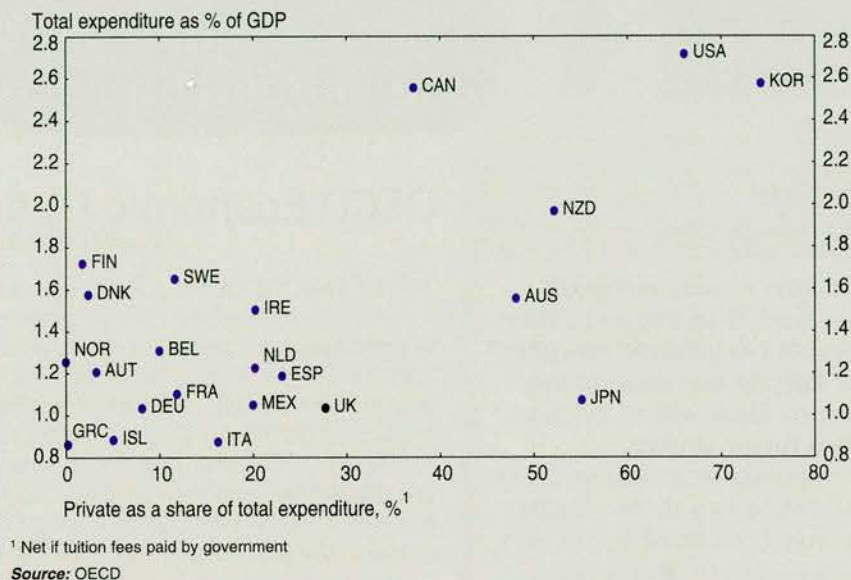
case for supporting students intending to follow careers in key public services, such as teaching or health, which are expanding rapidly in the UK. But even in such cases it is preferable that any subsidy be explicit and targeted, rather than implicit because a uniform fee is imposed across all courses.

While the UK reforms to higher education funding are an important step in the right direction, adding initially about 0.2% of GDP, expenditure levels will still fall well short of those in the United States. Higher education will therefore still face serious challenges and continue to rely on funding from stretched government resources. Nevertheless, the UK graduate contribution scheme, following the previous experience of "study now, pay later" funding schemes in Australia and New Zealand, could be a role model for other countries in Europe. Such an approach is the fairest way to strengthen their higher education systems for today's global knowledge-driven economy. ■

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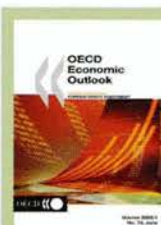
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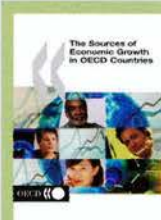


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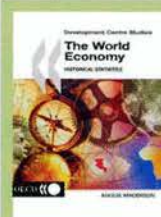
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No room for complacency

Martin Cullen, Minister for the Environment, Heritage and Local Government, Ireland, and Chair of the 2004 Meeting of OECD Environment Ministers*

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Ireland, despite its position of being “an island off an island off the continent of Europe” has always maintained strong ties with the heart of Europe. Our history has meant that these ties were not always formal ones, and at times, physical and political isolation have weakened them. However, in the latter part of the 20th century, through our participation in the European Union, the OECD and other organisations, Ireland has renewed and strengthened its historic connection with the broader European experience.

Ireland's recent development has been marked by comprehensive engagement with the process of globalisation. Through the pursuit of progressive economic policies, such as those long advocated by the OECD, Ireland has seen unprecedented economic growth, greater interaction with the global marketplace

and a reversal of many negative trends in terms of unemployment and emigration. Ireland now welcomes to our shores people from all around Europe and further afield, who search for employment in our revitalised island nation.

However, many of the issues that concern me reflect the potential impact of that economic advance on our environment. The first *OECD Environmental Performance Review of Ireland* (2000) showed that, while the quality of our environment is good, the challenges are increasing and intensified action is required.

In the first half of 2004, Ireland holds the presidency of the EU. The overall theme of the presidency, *Europeans – Working Together*, will be most visibly realised on 1 May 2004 with the accession to the Union of ten new member states from



Mr Cullen, Ireland's environment minister

central and eastern Europe and the Mediterranean, so leaving behind a past of, at times, painful conflicts and divisions.

Shortly before then, I will have the honour of chairing the OECD Environment Ministers Meeting (20-21 April 2004). This will be an important opportunity for member countries, in the context of the OECD Environmental Strategy, to take stock of where we all stand in terms of ensuring that economic development does not take place at the expense of the natural resource base on which it ultimately depends.

As I see it, good progress is being made by OECD member countries in developing and implementing environmental policies in key areas, such as action to address climate change, reductions in local air pollution, better management of freshwater resources and improved energy efficiency. There is, however, no room for complacency: further action is needed urgently. For example, we need to continue to work together to limit and reduce greenhouse gas emissions, better manage transport demand (particularly in urban areas), promote greater use of renewable energy sources, and more comprehensively address the problems presented by unsustainable patterns of consumption.

In facing up to these challenges, we must work to avoid simplistic "economy or environment" choices: we can – and we

efficient emission reductions.

We environment ministers need to get the message across that progressive environmental policies present significant economic and social opportunities. For example, in developing clean technologies we can protect the environment, while also contributing to economic growth, competitiveness and employment. Indeed, such technologies also have a key role in achieving internationally agreed development and environmental goals. We must foster greater collaboration with developing countries in this regard.

On the broad international agenda, there is, I feel, a real sense that the poorest countries have generally been left behind by increasing globalisation and, even in countries that have benefited, the gains have not reached significant segments of the population. The challenge, particularly for OECD countries, is to make globalisation work for sustainable development and to work to ensure that the benefits are shared more equitably and responsibly.

Our meeting in Paris in April will coincide with CSD 12 (see article on p.32) in New York, where the focus will be on water, sanitation and human settlements. I hope that there will be good synergies between the two processes, and out of them will come confirmation of the

Making the market work for the environment is an approach that we need to exploit much more.

must – have both. Making the market work for the environment is crucial here and is an approach that we need to exploit much more. We must be imaginative; for example, in Ireland we recently introduced a very successful levy on plastic shopping bags (a major litter nuisance) which dramatically cut their use while raising resources for environmental purposes. This demonstrated to the public how small changes can make a big difference. On a much higher level, CO₂ emissions trading across the EU, which will start soon, will help achieve cost-

international commitment to the common pursuit of a high quality environment and sustainable development. ■

*The OECD Environment Policy Committee Ministerial meeting takes place in Paris, 20-21 April 2004. For more, see www.oecd.org/envmin2004

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The OECD Environmental Strategy

Are we on track?

Lorents Lorentsen, OECD Environment Director

The OECD Environmental Strategy is in its third year. Governments cannot afford to let up on their commitments.

Sticking to deadlines and keeping promises has never been easy for anyone, let alone politicians, for reasons we all understand. But there are some pressing matters that require urgent firm action, not because we have made promises or undertaken commitments, but because there may not be too many second chances to get them right. Some environmental challenges are of this type.

Our economies and incomes have grown at an unprecedented pace, but in too many cases to the detriment of our natural capital. We have made progress towards several environmental goals, to be sure, such as managing demand for water and decoupling the release of air pollutants like sulphur dioxide, carbon monoxide and ozone-depleting CFCs from economic growth. But much more progress is needed. Ecosystems continue to be degraded, persistent and toxic chemicals are widespread in the environment, many fish stocks are declining, and greenhouse gas emissions – particularly from road transport and energy use – continue to grow.

In sum, the basic question still is: how can we continue to grow and overcome global poverty, while doing relatively less damage to the environment that sustains us and all our activities?

Headline summits have come and gone and some of these have helped deal with some of the issues. To make solid progress we need a road map, which is why in 2001 OECD governments adopted the OECD



Well, are we?

Environmental Strategy for the First Decade of the 21st Century (see box overleaf). We are only three years into the 10-year time frame set out in the Strategy, but it is already clear that, in a number of crucial areas, we are “not yet on track” for implementation by 2010. This is a pity now, but could become a cause of major regret in the future if irreversible damage is done to our ecosystems, our climate or our health.

To avoid reaching that point, we must act now. The Strategy highlights the key

challenges under five general objectives, and lists 71 rather concrete national measures for action. The overall aim is to move closer to the goal of ensuring environmental sustainability in a cost-effective and socially equitable way. The Strategy made sense and won the endorsement of OECD environment ministers when they met on 16 May 2001 and of ministers of finance and economics the very next day.

While OECD governments are accountable to the commitments they made in the

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The OECD Environmental Strategy

The OECD Environmental Strategy identifies five inter-linked objectives for enhancing cost-effective and operational environmental policies in the context of sustainable development:

Objective 1: Maintaining the integrity of ecosystems through the efficient management of natural resources (with a special focus on climate, freshwater, and biodiversity).

Objective 2: Decoupling environmental pressures from economic growth (with a special focus on agriculture, transport and energy).

Objective 3: Improving information for decision making: Measuring progress through indicators.

Objective 4: The social and environmental interface: Enhancing the quality of life.

Objective 5: Global environmental interdependence: Improving governance and co-operation.

Strategy, they know that they cannot fully achieve them by themselves. This is the global world we live in. Environment ministers from ten non-OECD countries – Argentina, Brazil, Chile, China, India, Israel, Kazakhstan, Russia, Slovenia and South Africa – have been invited to join discussions at the OECD environment ministerial meeting in April 2004, to reflect on common global environmental problems, such as climate change and loss of our biodiversity. It is important to bear in mind that we cannot expect developing countries to come on board international environmental agreements unless the prosperous OECD countries are willing and able to follow through with their own commitments.

Beyond governments, it is also important to work co-operatively with business, labour and non-government organisations. For the first time ever at the OECD, we have asked representatives of these groups to participate in the ministerial meeting too. Indeed, when it comes to environmental issues, we are all members of civil society in many respects: we all contribute to some of the environmental problems, we all suffer from poor practices and benefit from progress.

Are OECD countries making progress? To use a traffic light image we have coined, in 2001 OECD identified a number of “red light” environmental issues that had to be urgently addressed (see *OECD Environmental Outlook* 2001). Since then, only a few of those dangerous red lights have turned to a less urgent “yellow”, and none has turned to a safe “green”. It is increasingly clear that major political or economic obstacles are blocking the path to reform.

Take the example of climate change and energy. Many OECD countries have implemented or are developing new policies to mitigate greenhouse gas (GHG) emissions at least cost. Emission trading schemes are in place in a number of OECD countries, and planned in others. Carbon or energy taxes are used in 12 countries, and a number are starting to develop project-based flexibility mechanisms,

For the first time ever at the OECD, we have asked civil society representatives to participate in the ministerial meeting too. Indeed, when it comes to environmental issues, we are all members of civil society in many respects.

which allow countries to invest in GHG emission reductions abroad and count these reductions to help them achieve their domestic targets. All that sounds promising.

But implementing these policies is harder. The largest and most polluting energy users still often benefit from energy tax exemptions, reducing the economic efficiency of these taxes as well as their environmental effectiveness. Taxes on “dirty” fuels are set too low in most countries, giving little incentive to switch to alternative, cleaner energy sources or to develop new technologies.

Progress at the international level is even slower. The Kyoto Protocol cannot enter into force until more countries ratify it. The prospect of that happening is uncertain, especially as countries cannot agree among themselves on the science of climate change, let alone how to address it. Unfortunately, we are already too late to stop some of the

human-induced changes in our climate. This means that policies to reduce greenhouse gas emissions will have to be accompanied by other measures to help us adapt to the effects of climate change, like increased occurrences of extreme weather conditions or sea-level rises.

Pollution is another major challenge. Despite improvements in technology, air quality standards continue to be breached and carbon dioxide emissions from transport are growing as fast as demand for transport rises. Much more ambitious economic and regulatory policies will be needed to reduce the environmental and social impacts of transport growth, particularly road and air transport.

As to stemming the loss of biodiversity, time is not on our side. OECD countries have been working to extend protected areas – these now reach 14.6% of the OECD's

overall land area – but biodiversity loss outside of these zones continues. The percentage of known species that are endangered is increasing, and indicators of the total numbers of vertebrates in the wild continue to register declines. Biodiversity losses like these upset the balance of life on our planet, putting survival at risk, let alone prosperity. More has to be done to integrate biodiversity goals into policies for agriculture, fisheries, tourism and forestry. This is starting to happen, but again, the lights have not switched to green. For instance, a number of key international agreements to protect the marine environment and ensure sustainable fishing have recently entered into force, thanks in part to ratification by some OECD countries, but fish stocks are still declining. And while there is a gradual trend toward the “greening” of OECD agricultural subsidies for instance, by linking them to specific environmental goals, the process remains too slow. The national action governments agreed to in the OECD

Strategy of phasing out or reforming all environmentally damaging agricultural subsidies by 2010 is clearly not on track.

Why is so little being done in these areas? What obstacles stand in our way? A lack of adequate and accepted information is one of them. It is not easy to mobilise action when the consequences are long term or uncertain. Some gaps in scientific understanding – on the likely impacts of climate change on the environment and the economy, or of species loss – continue to hamper agreement on appropriate policies. Further improvements in the collection and dissemination of environmental information in OECD countries and our partners beyond will contribute to the development of more effective environmental policies, as well as ensuring increased transparency and accountability in the policy-making process.

Another obstacle is concern about possible effects of environmental policies on income distribution or competitiveness, and a concern that some social groups, like farmers, coal miners or fishers, will suffer from measures more than others. Yet it is possible to address these concerns and still ensure the environmental incentives of particular policies are maintained. For example, water pricing tariffs can be designed so that a user pays more for increasing amounts of water. This provides an incentive for consumers to minimise water use, while still allowing low-income households affordable access to essential water.

The OECD secretariat will, as mandated by our governments, continue to support countries in their efforts to implement the Strategy, through analytical work, peer reviews, information and policy advice. This is important work, but the hard decisions remain with the governments themselves to fully implement these policies and put the Strategy back on track. No one said it would be easy, but on such important environmental matters, we should not be soft on deadlines. ■

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BioAdversity



Birds of a feather

Biodiversity has struggled for front page attention in environmental policy campaigns. Perhaps it is because the word biodiversity has a positive connotation and so lacks the rallying edge of headline terms like pollution, global warming, hazardous wastes or ozone depletion. These are the fronts which the public seems most nervous about. Yet, the consequences of reducing our planet's biodiversity cannot be underestimated.

The extermination of species is not easy to measure, but as many as 137 species are disappearing from the Earth each day, thanks to deforestation, desertification and unsustainable use of resources. In fact, tropical rainforests are disappearing at the rate of 12 million hectares per year, because of human intervention. According to the *OECD Environmental Outlook*, a forest area equal to the size of Switzerland is being lost each year in South-East Asia alone.

While few may miss the now extinct Xerces blue butterfly or the Fort Ross

weevil, the habitat loss of the charismatic elephant in Africa and Asia is harder to ignore. The impact of just one elephant is immense. Elephants consume on average 150-300kg of vegetation per day, along with around 200 litres of water. The wild elephant uproots and scatters as much as it eats, thereby dispersing seeds and food to smaller herbivores. Its foraging opens paths and its droppings distribute nutrients. Take away the elephant, and every macro and microscopic species that depends on its lifestyle will go too, be it a more modest mammal or a miniscule leaf of as yet unknown medicinal potential.

The word may be biodiversity, but bio-destruction gets closer to capturing the real stakes. It is human activity that is putting the balance of our natural capital – the biosphere – at risk. And that means putting our own futures in jeopardy too. **RJC** ■

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Climate change

The challenge continues

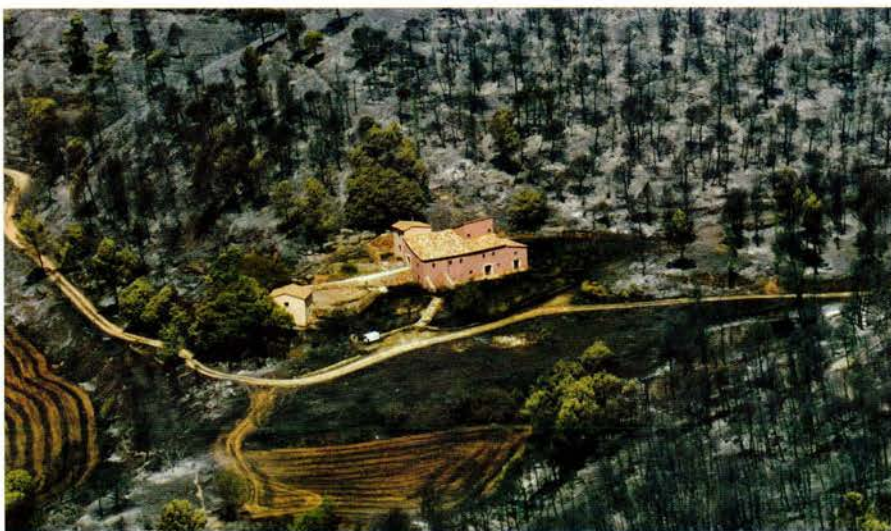
Joke Waller-Hunter, Executive Secretary, United Nations Framework Convention on Climate Change

The problem of climate change has not gone away, nor will it be wished away. Governments must act.

Ten years have passed since the United Nations Framework Convention on Climate Change (UNFCCC) entered into force on 21 March 1994. It is thus most appropriate to review what has happened since then in what is an enormously complex field. One thing has become very clear, namely that climate change touches upon virtually every sphere of life, and almost every human activity either contributes to climate change or is affected by its impacts.

Certain impacts of climate change may already be observed, and much more is expected if the rise in greenhouse gas concentrations cannot be slowed down. The growing number of extreme weather events in recent years is one example of the kind of impacts that may be in store.

Worldwide economic losses due to natural disasters increased from about US\$40 billion per year in the 1990s to US\$60 billion in 2003, according to estimates by the United Nations Environment Programme (UNEP) Finance Initiative. Numerous weather and climate-related disasters occurred in 2003, some unprecedented in intensity. Thousands of people died in Europe and North America as a result of the impacts of heat waves, and significant damage was caused by widespread forest fires. In Korea, a typhoon caused over 100 deaths, 25,000 homeless and an estimated US\$4.1 million in property damage. Developing countries were seriously hit. In Pakistan, floods killed 162 people, displaced 900,000 and destroyed nearly 48,000 homes. Drought affected the livelihood of 23 million people in eastern and southern Africa.



Landscape of the future?

In general, it is developing countries that are most vulnerable. They rely heavily on climate-sensitive sectors, such as agriculture and forestry, and their lack of resources, infrastructure and health systems leaves them at greater risk to the adverse impacts of climate change. Particularly at risk are low-lying areas and deltas, large coastal cities, squatter camps located on flood plains and on steep hillsides, settlements in forested areas where seasonal wildfires may increase, as well as those stressed by population growth, poverty and environmental degradation. Helping countries to adapt to climate change has become a key component of overall climate change policy, but much remains to be done to implement it, in such areas as infrastructure development and land management.

One of the main goals of the Convention was to demonstrate that in about 10 years

developed countries could return their emissions to 1990 levels. Indeed, industrialised countries, referred to as Annex I Parties, have cut greenhouse gas emissions by almost 7% between 1990 and 2001. But this is primarily due to a 40% decline in emissions in countries whose economies are in transition. Greenhouse gas emissions in the highly industrialised countries (Annex II Parties) increased by about 7.5% during that period.

Many countries will have to do a lot more to get their emissions down. Under the Kyoto Protocol, reduction targets will force some Annex I Parties to put in place stringent measures to cut carbon dioxide emissions. While the overall emission reduction of 5% under the Protocol might not appear to be very ambitious, the instrument, even though it is not yet in force, has already set in motion

the vital process of decoupling the pace of increase in CO₂ emissions from economic growth.

Carbon intensity, which describes the relationship of carbon emissions and world economic output, has decreased continuously since the industrial revolution and this trend accelerated in the 1990s. But there seems to be a level towards which different carbon intensities globally converge. The world has been moving together in the last 30 years with, for instance, China having brought its energy intensity down to US levels, at the same time as the US has approached levels of developing and European countries. The challenge is to move this level of convergence further down, and the efforts that countries make to meet their Kyoto commitments are an important step in that direction.

But we all know that the Kyoto Protocol, important as it is, is only a first step in meeting the long-term objective of the Convention "to achieve [...] stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with

the Kyoto Protocol provisions.

Renewable energy sources, hydrogen-based fuel and carbon sequestration are today's catchwords. But we should not forget that major policy decisions will be needed to allow these and possibly other breakthrough technologies to penetrate the market. Today's experience shows that this remains a challenge for many governments.

The Kyoto Protocol has set in motion new policy instruments that allow combining economic efficiency with environmental effectiveness. Emission trading has now become a reality. 2004 will see the first projects under the Protocol's Clean Development Mechanism (CDM), which is gaining wider interest in the developing world. This innovative financial mechanism promotes sustainable development in developing countries by channelling private-sector investment into emission reduction projects, while offering industrialised countries credits against their Kyoto Protocol targets. Work to prepare for joint implementation under the Kyoto Protocol is also under way.

The EU is in the process of implementing an agreed emission trading scheme and the difficulties associated with this process show

I must admit to being surprised at some experts and leaders who argue that we should focus more on adaptation... But we should not forget that major policy decisions will be needed.

the climate system. [...]" (Article 2 of the United Nations Framework Convention on Climate Change).

I must admit to being surprised at some experts and leaders – including at the OECD – who argue that we should focus more on adaptation, because the Kyoto Protocol would not solve the climate change problem. Yet, no one has ever claimed that the Kyoto Protocol would achieve that.

It is important, though, that research and development focus on technologies that will bring down the carbon-intensity of the economy and contribute to reducing greenhouse gas concentrations in the atmosphere to levels that can be considered "safe". These efforts are already being pursued with vigour, alongside the implementation of

the effort it requires on the part of the affected industries. The scheme is developed so that it can be linked to the Kyoto mechanisms. Similarly, there are many national and corporate CO₂ emission trading schemes, including in the US, where the Chicago Climate Exchange provides an interesting tool for the development of a new market.

The first 10 years of the Climate Change Convention have prepared the ground for a major policy breakthrough in the coming years. It has become clear that there is no quick fix. Action will be required on all fronts. Much needs to be done to help the most vulnerable societies to be able to cope with imminent climate change. At the same time, a more intense effort is needed to curb greenhouse gas emissions, in particular from fossil fuels. Emission trading schemes being



developed in conjunction with the Kyoto Protocol flexibility mechanisms will help to focus on the most cost-effective measures and provide incentives for much-needed innovations. There are clear indications that the second decade of the Convention will see us make major strides towards meeting this global challenge. ■

References

- For more information, check the Convention website: <http://unfccc.int>
- Data and further information on national policies can be found in the following documents (available on the website):
 - Report on the national GHG inventory data from Annex I Parties (FCCC/SBSTA/2003/14)
 - National communications from parties included in Annex I to the Convention – compilation and synthesis of third national communications (FCCC/SBI/2003/7)
- Find out more about the UN Environment Programme's Financial Initiative at <http://unepfi.net/fii/>
- More information on weather and climate-related disasters at the World Meteorological Organisation's website www.wmo.ch and <http://www.wmo.ch/web/Press/SG255E.pdf>

Sustained action

Remember the Johannesburg World Summit on Sustainable Development? Norway's minister of the environment, Børge Brende, chair of the UN Commission on Sustainable Development since May 2003, is determined to make sure that commitments made at Johannesburg and at other meetings are not mere souvenirs. We interviewed Mr Brende ahead of the Round Table on Sustainable Development at the OECD in March.

Q Mr Brende, you are chair of the UN Commission on Sustainable Development. How would you assess the balance sheet of progress since the 2002 World Summit at Johannesburg?

A The overall picture is a mixed one. Few countries are actually on track to meet the Millennium Development Goals concerning poverty reduction. The situation is particularly worrying in Africa where many countries have made little progress.

In the water and sanitation area, we see both improvements and setbacks. On the positive side, half of the world's countries are on track to meet the drinking water supply target. During the 1990s, we witnessed that the number of people with access to improved drinking water increased by about 900 million, from 78% of the global population to 82%. Many countries in Asia are on track, but most countries in other regions are not. Again, Africa remains the key challenge.

On the negative side, only a third of the countries are on course to meet the sanitation target, and just a quarter in the least developed countries. We know that 90% of wastewater in the developing world is untreated. South-Central Asia and East Asia are the biggest challenge. And over the next decade, rural India will pose the largest sanitation challenge, followed closely by China.

To be sure, the international community has set itself ambitious goals for sustainable

development. Important commitments and goals were agreed at every meeting, from the Rio Earth Summit in 1992 to Johannesburg in 2002.

What we need now is to implement those agreements. At CSD12, which is the UN's shorthand for the commission I chair, we will concentrate our efforts on implementation of a limited number of issues. So, at the two forthcoming sessions we have put water, sanitation and human settlements on top of the agenda.

Q What do you, Minister Brende, as chair of the UN Commission on Sustainable Development hope to achieve over the next few weeks and months?

A I hope that CSD12 will prove to be a benchmark for future CSD review sessions. With only three main items on its agenda, our commission will hopefully become more solution-oriented in its approach. I have invited a broader range of ministers, some of whom have not traditionally viewed CSD as their "area". Ministers responsible for the focus areas of water, sanitation and human settlements, as well as for international development and finance, have been invited to attend. I am also planning to conduct the session itself as an open and interactive dialogue between participants, involving relevant international bodies, experts and representatives of civil society, with special emphasis on best practices and principles.

Several key issues call for action, though I think achieving the integrated water

resources management target by 2005 is among the most important. The "International Drinking Water and Sanitation Decade" (1981-1990) taught us that, unless strategies for the exploitation and management of water resources are integrated with other plans and strategies for the community as a whole, the results are unlikely to be sustainable. Most analyses indicate that the "water crisis" is primarily an institutional problem. So, it is of crucial importance to develop integrated water resource management plans by 2005 in order to make progress towards the 2015 goal.

Q There is a risk of public disquiet over SD, of not getting enough points on the board, letting targets slip. Can policy-makers really make a difference?

A A good question. As a politician, I do of course believe policy-makers can make a difference. In the water and sanitation sector, as in many other areas, the primary responsibility for ensuring access to services rests with governments. Let there be no doubt about that. Governments provide the regulatory framework and hold the responsibility to ensure that the poor get the required service and are protected from excessive costs. However, I think we too often find ourselves involved in ideological debates concerning who shall provide the service. I think it is more important to ensure that the service *actually gets delivered*. A key concern to me is how we can develop the local



Børge Brende... leaps into action

©Norwegian government/OECD

private sector to provide water and sanitation services. Civil society organisations have a vital role to play in this area.

In Pune in India, a partnership between the municipal corporation, NGOs and community-based groups has resulted in the construction of more than 400 community toilet blocks, improving access to sanitation for more than half a million people. The inhabitants of Pune were fully involved, not only in design and construction, but also in the financing.

What do you despair over, and where do you see grounds for optimism?

Looking at the targets makes it seem like a daunting challenge indeed. Globally, one out of five people lacks access to safe drinking water. More than 2.4 billion, or two in five, lack access to proper sanitation. Still, I am an optimist by nature and believe the targets are feasible, and not always with huge investments either. Cultivating better attitudes and habits can contribute enormously. Even the simple act of washing hands with soap and water can reduce diarrhoeal disease by almost 50%. Ordinary acts like these can help improve the lives of millions of people.

The subsidy issue is where I become more alarmed. We know that close to 70% of water and sanitation spending comes from government budgets. Too often we see that such subsidies primarily benefit middle and high-income urban consumers connected to the public water supply network, whereas the urban poor, who are often not connected to the piped network, have to rely on more expensive sources of supply, such as private vendors. If we can change this pattern, targeting subsidies to the poor and the people who are most deprived would be a giant step. We have the means. The challenge is to use them more effectively. ■

(See "Smart water", page 38.)

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- The UN Commission on Sustainable Development, CSD, 12th session, will take place in New York, 16-30 April 2004. Visit www.un.org/esa/sustdev/csd/csd12/csd12.htm

Poorer shade of green

Does development aid help the environment? It ought to, especially as ensuring environmental sustainability is an explicit public policy aim in the Millennium Development Goals which governments reaffirmed at the Johannesburg summit on sustainable development in 2002. Delivering on this goal is a huge task, as it tackles issues like forestation, biodiversity, resource management, urban squalor, sanitation and global warming. One overriding aim is to integrate sustainable development goals into a range of country policies.

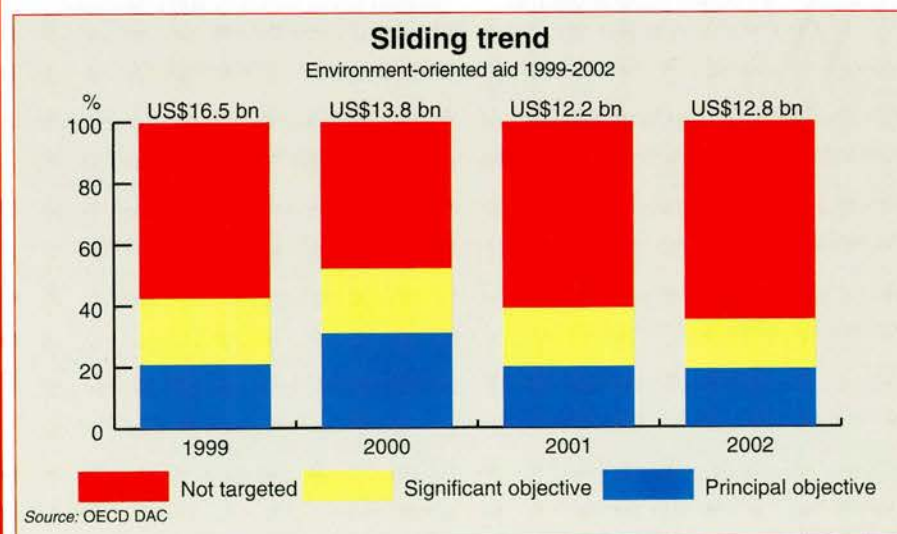
Roughly US\$6 billion in bilateral official development assistance (ODA) from the countries of the Development Assistance Committee at the OECD is earmarked each year for environmental ends. Monitoring it can be tricky, since reporting systems can change from year to year. Still, broadly speaking, some \$3 billion of aid goes to projects for which environmental goals are a "principal" objective. Building a nature reserve to promote biodiversity would be a principal objective, as would upgrading a power station to make it cleaner. The rest is channelled into projects in which environmental goals play a "significant" though not primary role, like adding a research laboratory to a university as part of a wider educational programme.

The trouble is that the overall proportion of environmentally-related ODA has declined

since 2000. Moreover, only a proportion of an activity ranked as "significant" may actually target environmental sustainability, whereas the amount recorded refers to the entire activity. But there is another problem. Overall sector allocable aid to education, health, industry, agriculture, etc., accounts for some 65-70%, or around \$30 billion, of total bilateral ODA, the rest being debt relief and other finance. Details on the environmental goals are available on only half of that amount. More screening of aid from large donors, like France, Italy and the US, is needed for a fuller picture.

On the positive side, there was a slight uptick in ODA from \$2.4 billion in 2001 to \$2.5 billion in 2002 for projects with a principal environmental justification. Nevertheless, that level was down by over 40% compared with 2000.

Reversing this declining trend must become a priority if international environmental goals are to be met. The DAC Guidelines: Strategies for Sustainable Development seek to encourage this by clarifying the importance of effective national and local strategies for sustainable development; describing the various forms they can take in developing countries; and offering guidance on how development co-operation agencies can support them. See www.oecd.org/dac, click "Sustainable Development". ■



Space tourism

Is it safe?

David B. Sawaya, Graduate of the International Space University, Strasbourg, France and former research assistant at the OECD

The space age may be entering a new phase, but the issue of safety continues to weigh against ambitious ideas about manned travel in large numbers, particularly tourism.



Cosmic sun tan: The world's first space tourist Dennis Tito returns after his vacation on the international space station, 2001

“We do not know where this journey will end, yet we know this: human beings are headed into the cosmos.” With these words, the US president, George W. Bush, launched in January his ambitious vision for a new US programme for human space exploration. A new manned spaceship for a trip to the moon by 2015, not just to visit but to spend time there, would open the way for manned missions “to worlds beyond”, including to Mars.

The president's announcement followed hot on the heels of one from the Russian Space Agency (Rosaviacosmos), that it was planning to send two civilian “space tourists” and a professional cosmonaut to the International Space Station aboard a

Russian Soyuz rocket in 2005. Moreover, the Soyuz trip will be the first privately funded manned space launch ever.

Space enthusiasts are delighted at this flurry of renewed interest, and the fact that China has succeeded in sending a person into orbit merely heightens the stakes and intensifies the competition. Even the Europeans are locking heads and planning a strategy to get to Mars in the coming half-century.

But to see in these initiatives the dawn of a space tourism age would be making a leap of faith. True, space's return to the top of the international policy agenda has to be welcomed, not least for its commercial potential (see box). On the other hand, why has it taken so long? Space exploration

began over 40 years ago, yet only three countries – and China's case is as yet unproven – appear to have the capability to put humans in space. And none has been able to promote space visits on a sustainable, commercial scale.

The US programme intends to tackle this, though we must be realistic. The budget announced to get the programme off the ground will be high. According to the White House, most of the funding needed for the new programme will come from reallocating US\$11 billion of NASA's current five-year budget of US\$86 billion, and adding another billion dollars over five years. While some commentators say this will not be enough, expense is only one problem to consider. The real tricky issue is safety.

The tragic break up of the space shuttle Columbia on 1 February 2003 was a reminder of how dangerous space travel still is, despite 40 years of development. In fact, space travel is much more dangerous than any other form of transportation, including driving a car. In the US manned space programme, there have been 17 fatalities in 732 person flights. That means an astonishing 2,320 deaths per 100,000 passengers, which is 45,000 times more dangerous than flying in a commercial airplane. Put another way, two space shuttles have crashed in 113 departures, which is a 1.8% failure rate. This would be unacceptable for commercial airplanes, which see an average of about 0.4 accidents per 100,000 departures per year in the US.

In other words, space travel, while desirable, is just too hazardous to become a major tourist activity. It is even more dangerous than so-called "extreme" sports, such as scuba diving or sky diving.

Russia has had a better success rate. In fact, it has not had a manned vehicle failure aboard its Soyuz rocket since 1971. This is a result of the Russian tendency to build simple systems using reliable "off-the-shelf" components, which, together with low

reusability with a quick turnaround time and easy inspectability. In the late 1960s, after its successful moon missions, NASA began to focus on creating a reusable launch vehicle (RLV) that would drastically reduce the cost of space travel. This goal, which manifested itself in the creation of the Space Shuttle, has not been reached. Ironically, the Space Shuttle is the most expensive launch vehicle in the world (estimates range from US\$350 to US\$500 million per flight), even though it has reusable parts.

Why does the Space Shuttle cost so much? For a start, it requires a veritable army of ground personnel to inspect the vehicle after each flight and prepare it for the next one. It is only reusable after the vehicle has essentially been taken apart and reassembled. The thermal protection system alone takes 30,000 people-hours (3,750 working days) to inspect, refurbish and reinstall between flights. This labour intensive process is one reason why the US space shuttle fleet has never flown more than nine times in any one year. This is far too few flights for a large tourism market.

Assuming there is a demand, just how big (or small) might that tourism market be? First of all, manned space flight is beyond

price, the market is much larger and using the same assumptions as above, there would be approximately 72,500 paying participants. A lot, but certainly not enough for a mass revolution.

Not everyone shares this scepticism. Take the X Prize foundation, which is seen by many as the bellwether of space tourism. The foundation will award US\$10 million to the first team which builds a vehicle capable of taking three passengers to a suborbital altitude of 100 km and repeating the feat within a week. Perhaps this more open, competitive, model could achieve progress at a fraction of current costs. Indeed, some speculate that such ventures could open the way to sub-orbital joyrides at around US\$100,000 a ticket.

But there are obvious dangers, not least of which is the risk of corner cutting on safety to make that fast turnaround and ultimately running the risk of another disaster.

Cosmic cocktail

The real problem facing space tourism is not any one of the issues described above. Rather, it is all of them blended together: cost, safety and market-size. The more safety ingredients you add to the cocktail, like back-up systems or escape options, the more expensive it becomes. In fact, due to the additional complexity of the overall system, some argue that increasing spacecraft reliability from 96% to 99% would be as expensive as the reliability increase from 80% to 96%. This leaves space tourism entrepreneurs with a bit of a chicken and egg problem: how to realise affordable launches that are safe at the same time.

There are a number of steps that government and private space capitalists could take, though. First, they should stop thinking of space as a place for tourism, at least initially. The focus should be on other commercial endeavours, with tourism developing as a bonus. After all, in the automobile, railway and aviation industries, commercial needs drove mass production and cost reduction, which eventually paved the way for tourism.

And there are plenty of commercial incentives for going into space, in particular the prospect of harnessing valuable

The space tourism market would only be about 100,000 people. And then, only a small percentage would be willing to pay for a space flight.

labour costs, contribute to producing one of the cheapest launchers on the market.

Cheap is a relative term however; the price of an unmanned Soyuz is approximately US\$35 million, while a manned vehicle costs much more as a result of the complex life support and atmospheric re-entry systems. How can one of the cheapest launch vehicles in the world still be so prohibitively expensive?

The main problem with the Soyuz is that none of it is reusable; even the small passenger capsule that returns to Earth is not reused. Most experts agree that a truly increased human presence in space will only be achieved by combining total or near-total

the pockets of most ordinary people. There have been two space tourists, both multimillionaires, reportedly paying some US\$20 million to fly aboard the Russian Soyuz rocket and spend 10 days aboard the International Space Station. There are not very many people in the world who are capable of paying this much. In fact, the market would only be about 100,000 people. And then, only a small percentage – experts say about 1% – of that number would be willing to pay for a space flight.

Launch costs have remained essentially stagnant since the beginning of space flight in the late 1950s, but what would the market result be if ticket prices dropped to US\$1 million per launch into orbit? At this

Space watch

Ever since the launching of Sputnik in 1957, public attention has always focused on spectacular space missions such as the landing of Apollo on the Moon in 1969 or, more recently, the stunning pictures transmitted from Mars by Spirit. At the same time, space programmes have faced their setbacks, from tragedies like Columbia to extravagant cost overruns, leading to deep cuts in public support to space ventures.

Despite these challenges, space applications have the potential to generate significant economic, social and environmental benefits worldwide, as space technologies give rise to a growing range of products and services. This is the view of *The Civil Space Sector in 2030: A Scenario Based Assessment*, a new report from the OECD International Futures Programme. Recent political announcements apart, the space sector faces serious challenges that require urgent national and international policy action. Many countries reassessing their overall space strategies face difficult



French research and new technology minister Claudie Haigneré prepares for space trip in 2001

choices, in particular concerning the level of effort they should devote to space, how that effort should be allocated, the role of

resources, like Helium-3 on the moon, as well as the engineering and technical spin-offs of the R&D needed to get there. The possible discovery of water on Mars could pave the way for human exploration and eventual exploitation, since with water we can produce oxygen needed to breathe and hydrogen for rocket fuel.

Second, technology must of course be improved, so that spacecraft are developed with the same safety and reliability characteristics as today's commercial airplanes. Research is going on throughout the world, but funding is low and much of the technology being developed is just an evolution of what is commonplace now. More effort may be needed to make the breakthrough that could be revolutionary. However, with NASA already having to cut the budget for the Next Generation Launch Technology program to fund the agency's new exploration programme, it remains to be seen whether the funding to make such a breakthrough will be there.

Finally, spacecraft design procedures must be changed so that inspectability and turnaround time requirements are satisfied. Also, modifications to allow some in-flight repair should be considered. Ideally, a

spacecraft should be designed with parts that can easily and quickly be changed. Without this, a substantial tourism market might not get off the ground simply because vehicles will be unable to fly frequently enough. Nor would investing in a much bigger airline-type fleet be an automatic solution, since inspection times would still be long and costs too high.

With all the difficulties of space travel, why are private investors so interested in the commercial prospects of space, especially given the notoriously high development costs and reputation for time overruns and failures? A need to expand may be the simple answer, and government support in partnership with private entrepreneurs may one day bring space's full commercial potential within reach of holidaymakers.

Until then, there may be more modest opportunities on the horizon. Take the US Department of Defense's Falcon programme to develop a hypersonic bomber by the year 2025. This would have considerable spin-off potential. Coast-to-coast travel in the US would take 30 minutes, while Sydney would be just over an hour away from Paris and London. The vehicles developed in the

the private sector, and so on. As the OECD report suggests, the policy and regulatory frameworks governing space-based activities have to be better adapted to meet future challenges, including the further development of commercial ventures.

What is the state of the space sector? What are its prospects and obstacles to its development? What applications are likely to be successful in the future? The report attempts to answer some of these questions by exploring the future evolution of major components of the space sector (military space, civil space, commercial space) over the next 30 years, taking into account developments in geopolitics, socio-economic issues, energy and the environment, and technology. The report examines the current state of the space sector and provides the basis for assessing the prospects of a number of space applications, including microelectronics, nanotechnology or robotics. ■

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Falcon programme could be modified to travel through the upper reaches of the atmosphere and allow people to experience weightlessness from microgravity, while getting from A to B. Hypersonic planes will cut travel times by 90%, not just the 50% allowed by the recently decommissioned Concorde. Also, hypersonic planes will have better fuel efficiency for a wider global reach, and by flying at twice the height of Concorde, they will emit less of the noise pollution that was such a major obstacle to Concorde's expansion.

Floating around on a hypersonic plane might not sound as exciting a prospect as heading away into outer space. But cost and safety mean that, while space exploration must continue, for the general public, the sky will probably be the limit for a while yet. ■

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Squashing spam

Governments must step up their fight against spam or risk seeing consumer and business confidence in the Internet buried under a mountain of junk e-mail, the OECD has warned.

"We need a co-ordinated international drive to maintain consumer and business confidence in the Internet," OECD Deputy Secretary-General Herwig Schlögl told a two-day OECD workshop on spam hosted by the European Commission in Brussels in February. "Spam threatens to erode consumer confidence online, which in turn would undermine the digital economy and the open character of the Internet as a whole."

The intrusiveness of spam, much of it linked to fraudulent, deceptive or pornographic activities and increasingly debilitating computer viruses, has raised questions about the future development of e-commerce. Even normal civic activity, including e-government, would be at risk. Despite increasing use of anti-spam services and technologies, the

volume of spam continues to rise and, according to some sources, now accounts for as much as half of all e-mail traffic on the Internet.

The OECD has already produced influential guidelines for computer security, online privacy and consumer protection, setting basic standards for governments, companies and individuals to go by. The organisation is leading the charge, bringing governments, businesses and other concerned parties together to discuss ways to combat spam.

While there is no easy solution, governments can act on several fronts. They can use their spending power as IT clients, for a start, to encourage suppliers to develop more effective anti-spam protection systems. And via education they can encourage a trust culture, backed up with rules, rather like switching mobile phones off while driving or in air travel. ■

- See www.oecd.org/sti/spam

South Africa chemical MAD

South Africa has become the first non-member country to join an OECD system for sharing results of safety tests on chemicals that saves governments and chemical producers some US\$60 million a year.

South Africa signed up to the OECD's Mutual Acceptance of Data in the assessment of chemicals, or MAD for short, in February. The system allows the results of a variety of safety tests on chemicals and chemical products, such as industrial chemicals and pesticides, to be shared by signatories.

Testing is carried out using OECD standards for test methods and for data quality. South Africa became a provisional adherent to the system in 1999 and had since worked with OECD countries to make its compliance monitoring programme acceptable to all members. Several other non-OECD countries are at various stages in the process of adherence to the MAD system. ■

- For more on the OECD's work on chemical safety, see www.oecd.org/ehs

Latvia investment pact

Latvia has signed up to the OECD Declaration on International Investment and Multinational Enterprises. The invitation from OECD members recognised Latvia's general openness to foreign direct investment and will reinforce the Latvian government's efforts to pursue investment-friendly economic reforms.

The Declaration calls for treatment of foreign investors by host country governments no less favourable than that applied to domestic enterprises. It also promotes voluntary standards of responsible business conduct under the framework of the OECD Guidelines for Multinational Enterprises.

Latvia is the 38th country to adhere to the Declaration, joining the 30 OECD countries plus Argentina, Brazil, Chile, Estonia, Israel, Lithuania and Slovenia.

A recent OECD examination of Latvia's FDI policies encouraged the Latvian government to actively pursue its economic reforms and dismantling of market access barriers on a non-discriminatory basis and to continue to find concrete solutions to administrative barriers faced by the foreign business community. ■

- For more information, see www.oecd.org/daf/investment/guidelines

New UK ambassador



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David Lyscom took up his post as UK ambassador to the OECD on 14 January, succeeding Christopher Crabbie. Ambassador Lyscom is a career diplomat

who served as UK ambassador to Slovakia from 1998 to 2001, and had previously held posts in Vienna, Ottawa, Bonn and Riyadh, as well as the Foreign and Commonwealth Office in London. He had served as a Special Project Manager at the Foreign and Commonwealth Office immediately before being named to the OECD post. ■

Health forum shapes up

How healthy are the global economy, multilateral co-operation, and indeed the general public? The OECD's Forum 2004 will seek answers to these and other questions on the international policy agenda under the theme "Health of Nations" at the Centre de Conférences Internationales in Paris on 12-13 May 2004.

Because the Forum takes place at the same time as the OECD's annual ministerial summit, its conclusions will feed into those discussions. Indeed, several ministers of trade, economy, foreign affairs and health will join leaders from business, government, labour and civil society as well as OECD experts at the forum, before taking part in the ministerial event. This makes the OECD's public forum uniquely placed in its capacity to shape policy among the world's most powerful countries.

Speakers at Forum 2004 include French Foreign Minister Dominique de Villepin, World Trade Organization Director-General Supachai Panitchpakdi and former Korean President and Nobel Peace laureate Kim

Dae-jung. Business figures include GlaxoSmithKline chief executive officer Jean-Pierre Garnier and Pfizer chairman and CEO Henry McKinnell, who will be joined by civil society leaders such as Mary Robinson, Executive Director of the Ethical Globalisation Initiative and former president of Ireland. ■

- The OECD Forum is open to all. For more details, visit www.oecd.org/Forum2004



Foreign Minister de Villepin

©French government

Energy book award

The International Energy Agency (IEA), a sister body of the OECD, has won a US award for the analytical excellence of its 2003 *World Energy Investment Outlook*.

Vicky Bailey, Assistant Secretary of the US Department of Energy, praised the study as "the first attempt to organise a comprehensive and authoritative picture of future investment needs, worldwide, in all parts of the energy supply chain". The book, she said, "makes an important contribution to the understanding of critical energy issues facing the world and challenges myths that have tended to dominate the energy debate over the last 30 years". ■

- For more information on the *World Energy Investment Outlook*, see www.worldenergyoutlook.org

Smart water

A key Millennium Development Goal agreed at the 2002 Johannesburg summit on sustainable development is to halve the numbers of people in developing countries without access to safe water and basic sanitation. A meeting of the UN Commission on Sustainable Development in April will review progress in achieving these targets.

At the OECD Round Table on Sustainable Development in March, a group of ministers and other high-level representatives, including the chairman, Børge Brende (see page 32) are

scheduled to discuss the often neglected issues of sanitation and the integrated management of water resources. And in December 2003, the OECD Global Forum on Sustainable Development discussed how to finance the provision of water and sanitation.

Financial flows would probably have to double in order to meet the targets: a big challenge in today's cash-strapped world. As well as raising additional funds, more could be done to blend resources in smarter ways and so improve the impact of existing budgets. The OECD and the Danish authorities have developed a tool to help

achieve a more effective blend. It has been applied in the former Soviet Union and China where it has helped the authorities there to develop realistic and affordable financing strategies for their water sector. More focus on such practical measures is needed. ■

- For more information on this OECD-Danish instrument, see Policy Brief, "Feasible Financing Strategies for Environmentally Related Infrastructure", May 2003, at www.oecd.org/publications/pol_brief. See also www.oecdobserver.org/WaterForumSpotlight03

Frankie.org by Stik



Calendar of forthcoming events 2004

Please note that many of the meetings mentioned are not open to the public or the media and are listed as a guide only. All meetings are in Paris unless otherwise stated. For further information, consult the OECD website at www.oecd.org/, under "Key upcoming events", which is updated weekly.

MARCH

- 15-16 **E-government**, third OECD symposium organised by the Directorate of Public Governance and Territorial Development (GOV). Cancún, Mexico.
- 18-19 **Meeting of OECD Education Ministers: Raising the Quality of Learning for All**. Dublin, Ireland.
- 23-24 **Public Service Delivery and the Role of Government: Experience of OECD countries and its relevance to China's public service**, conference organised by GOV, the World Bank and the Chinese government. Beijing, China.
- 24-25 **International Perspectives on Growth and Employment**, forum organised by the OECD Berlin Centre and the German Ministry of Economics and Labour. Berlin, Germany.
- 25-26 **How to Reduce Debt Costs in Southern Africa**, seminar organised by the Development Centre (DEV). Johannesburg, South Africa.

APRIL

- 2 **Private Pension Funding and Investment**, conference organised by the Directorate for Financial and Enterprise Affairs (DAF).
- 7 **World Road Safety Day**.
- 15-16 **Development Assistance Committee (DAC)** high-level meeting.
- 16-21 **Strategic Management for Higher Educational Institutions Leaders**, seminar organised by the European University Association and OECD-IMHE. Cork, Ireland.
- 19-20 **Illegal, Unreported and Unregulated Fishing Activities**, workshop organised by the Directorate for Food, Agriculture and Fisheries (AGR).
- 19-23 **Intellectual Property Rights in China**, two joint workshops organised by the Directorate for Science, Technology and Industry (STI). Beijing, China.
- 20-21 **Meeting of OECD Environment Ministers**.

- 24-25 Spring meetings of the **International Monetary Fund** and the **World Bank Group**. Washington, D.C., US.

MAY

- 11-12 **High-level meeting on steel**, organised by STI.
- 11-14 **The Non-Observed Economy**, conference organised with the Statistics Directorate (STD) and UNESCAP. Bangkok, Thailand.
- 12-13 **OECD Forum 2004: Health of Nations**, annual public gathering of leaders from government, business, academia and civil society.
- 13-14 **Meeting of OECD Health Ministers: Towards High Performing Health Systems**.
- 13-14 **OECD Council meets at ministerial level**.
- 24 **African Economic Outlook**, annual report launched. Kampala, Uganda.
- 27-28 **Saving Energy in Set-Top Boxes**, workshop organised by the International Energy Agency (IEA).

JUNE

- 3-5 **Promoting Entrepreneurship and Innovative SMEs in a Global Economy**, second OECD conference of Ministers organised by STI and the Turkish government. Istanbul, Turkey.
- 8-10 **Sea Island Summit**, annual meeting of the G8 leaders. Sea Island, Georgia, US.
- 13-18 **UNCTAD XI**, UN conference on trade and development. São Paulo, Brazil.
- 14-15 **Latin American Competition Forum**, jointly organised by DAF and the IDB. Washington D.C., US.
- 16 **Skills Upgrading**, conference organised by the Directorate for Employment, Labour and Social Affairs (ELS). Copenhagen, Denmark.
- 23-25 **The Future for our Children**, fourth ministerial conference on environment and health, organised by the WHO. Budapest, Hungary.

School buses save lives

Keeping Children Safe in Traffic

Did you know that the biggest killer of children in many OECD countries is road-related crashes? *Keeping Children Safe in Traffic* notes that seatbelts remain one of the most effective crash protection devices ever installed in motor vehicles. Furthermore, it cites various studies showing that safety seats which are correctly installed and used for children can reduce the risk of death by 70% for infants and 54% for toddlers. In one US study, it was estimated that 458 lives of children under five years could have been saved in 2000 if the children had been protected by a safety seat.

The numbers are horrific. Since 1983, when the last OECD report on transport safety and children was published, an estimated 100,000 children have died in road-related crashes. In 2000, more than 5,000 children died in road traffic accidents in OECD countries. This actually represents progress, as the number of child fatalities went down by 50% between 1990 and 2000, as opposed to only 20% for road fatalities in the OECD as a whole. Yet, according to *Keeping Children Safe in Traffic*, one out of every 2,100 children will die as a result of a traffic crash before the age of 15, and a considerably higher number will suffer from severe injuries or lifelong disability.

Keeping Children Safe in Traffic finds that Swedish roads are the safest for children, with a fatality rate at about

1.5 children per 100,000, and Korea has a relatively high rate, at about 7.5 children per 100,000. Oddly, countries with more cars have lower fatality rates for pedestrians. Korea, for instance, has only 156 cars per 1,000 inhabitants, whereas Sweden has 422.

Keeping Children Safe in Traffic points out that ultimately the safety of children depends on stringent enforcement of traffic laws, good education and safe engineering of traffic and vehicles.

Education would help too. If you drive your kid to school, why not opt for the school bus instead? They have an excellent safety record, thanks to special construction and operation standards, including seat design that offers exceptional protection, plus safety education, driver training, vehicle maintenance and school bus route planning. Though more could be fitted with seatbelts, very few children die or get hurt on a school bus, *Keeping Children Safe in Traffic* says. In the US, approximately 23.5 million children travel on one of the 450,000 public school buses for an estimated 4.3 billion miles a year. Each year, an average of only 10 school bus occupants die in collisions. In fact, statistics show that children are at greater risk of injury or death from boarding or disembarking from a school bus than from riding in it. ■

The OECD Observer would like to offer its condolences to the families and friends of the victims of the recent bus crash in Dublin.

Dirty money

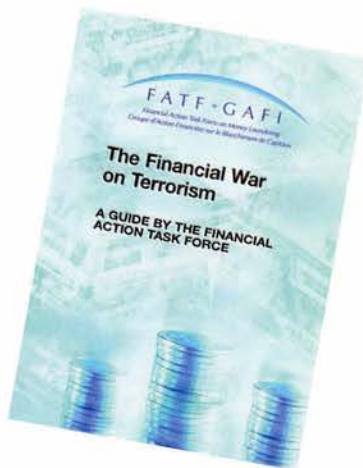
The Financial War on Terrorism

Terrorism is deadly and criminal, yet, it is a business. Agents are paid, their weapons are purchased, and their plots are financed. Their organisations raise, transfer, invest and spend hundreds of millions of dollars every year, whether investing it or laundering it. Whatever the political or ideological motivations, terrorism requires money.

The Financial Action Task Force (FATF) has spearheaded the global campaign against money laundering since it was established in 1989 by the G7 and the European Commission. After 9/11, its responsibilities were widened to include the fight against financing terrorism.

It has identified the tricks of the terrorist trade, such as dummy companies set up to house assets and run bank accounts, or charities that are used with or without their knowledge and consent, to collect, transfer and pay out money. Terrorist funds are mixed into businesses, which may or may not be otherwise legitimate, and shipped from country to country using wire transfers, underground moneychangers and black market operators.

In several European countries, police have found front companies in activities as diverse as publishing, real estate and fisheries. US investigators have found delicatessens doubling as fund collection centres, with multi-



million transfers broken down into hundreds of smaller transactions in a bid to slip through normal banking channels.

The worldwide proliferation of informal, unlicensed money remittance schemes is another problem. Although they might help migrants as an essential way of transferring money home, they are vulnerable to criminal and terrorist exploitation. For example, several remittance structures were set up to serve the needs of some 750,000 migrants and refugees from Somalia. One of these, Al Barakaat, was later identified as a funding channel for Al-Qaida.

The Financial War on Terrorism is a practical guidebook for legislators, financial regulators and others involved in interdicting the financing of terrorists and their organisations. It sets out a step-by-step roadmap, including the FATF's revised and updated recommendations on measures required to block criminal financial activity and help put terrorists out of business. ■

Preparing for disaster

Lessons Learned from Large-Scale Disasters

Disasters seem to have taken on an unprecedented scale in recent years, from major terrorist attacks to natural disasters, like the recent earthquakes in Iran and Morocco. But, says *Lessons Learned from Large-Scale Disasters*, today governments should be ready to deal more efficiently with the less obvious ramifications, such as uninsured losses, closed schools and businesses, medical costs, damaged transport infrastructure and labour problems. Apart from immediate clean-up, relief and recovery operations, the ripple effects of a disaster may produce such indirect costs as higher insurance premiums, social security costs linked to death and disability benefits, tax deferrals/losses for businesses, plus the cost of measures to prevent such an accident from repeating itself.

These costs mount up. Take the impact of 9/11. The economic loss is estimated at US\$120 billion, according to *Lessons Learned from Large-Scale Disasters*. The destruction damage alone accounted for approximately \$16 billion and some 200,000 jobs were lost or relocated. Business and consumer confidence plummeted. Natural disasters have had huge tolls too. The earthquakes in Marmara cost around \$20 billion, roughly 9%-10% of Turkey's GDP, with damages to buildings



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and infrastructure tallying up to \$10.2 billion.

Huge costs like these can be reduced by being prepared, but this cannot simply consist of guidelines and procedures. Immediate decisions usually have to be made on the basis of incomplete information, in a context of utmost urgency, and with considerable human, economic and political stakes. A large-scale disaster, by definition, removes familiar landmarks and is disorienting. *Lessons Learned from Large-Scale Disasters* emphasises the importance of quick communication from reliable sources, as well as risk-sharing coverage, possibly even at international level.

By definition, no one can successfully predict disasters of such magnitude, but *Lessons Learned from Large-Scale Disasters* insists that governments can and must be better prepared to mitigate their economic and social impacts. ■

The state of Africa

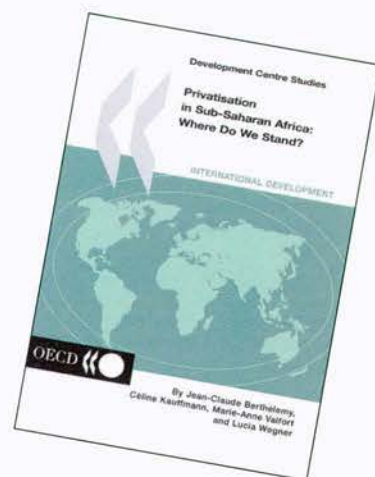
Privatisation in Sub-Saharan Africa: Where Do We Stand?

Does privatisation work for some of the world's poorest countries? *Privatisation in Sub-Saharan Africa: Where Do We Stand?* looks at the last decade of privatisation in Africa and discusses its successes and failures in terms of public finance, economic efficiency, pricing and local markets.

From privatising telecoms in Mali, electricity supply in Mozambique or water services in Gambia, it seems that privatisation efforts have at times taken one step forward and two steps back. Part of the problem, says *Privatisation in Sub-Saharan Africa*, is the perception that transactions are often considered detrimental to the poor because of the loss of state subsidies to basic services, inefficient though they may be. Furthermore, while a theoretical aim of privatisation is to raise productivity, which should cut prices in real terms and increase employment and growth, in practice, jobs get cut and prices have risen to levels that may be low internationally, but high by local standards.

Privatisation in Africa started in Côte d'Ivoire in 1960, with the partial sale of the water supply company. It accelerated dramatically in the last decade or so and by the end of the 1990s, a majority of African countries had received World Bank assistance for privatisation programmes. In fact, 67% of all adjustment lending involved public enterprise reform.

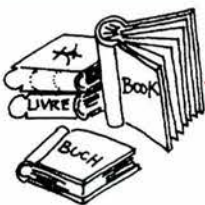
Yet cumulative proceeds of



privatisation account for just \$8 billion compared to \$46 billion in transition economies over the same period. In at least half of the 48 Sub-Saharan countries in 2002, the water, fixed-line telephone, railway transportation, air transportation and petroleum product distribution sectors were still state-owned.

Efforts to privatise continue, with 2,535 privatisations to date in sub-Saharan Africa, and 332 pending as of 2002, many of them utilities. This augurs for more price jumps, but may improve equity if investments spread. *Privatisation in Sub-Saharan Africa* reports that in Uganda, 94% of the population in 1995 was effectively subsidising the 6% who had access to electricity, to the amount of \$50 million a year. In urban areas of Ethiopia in 1996, around 86% of subsidies on kerosene were used by the non-poor. ■

Privatisation in Sub-Saharan Africa is published by the OECD Development Centre. Visit www.oecd.org/dev



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among the lowest in the OECD. In the medium term, improving the quality of public services in a cost-effective way in such areas as health and education will be a major challenge. In the long term, the challenge is to raise growth performance further, by reducing the still sizeable "productivity gap" with the best performing OECD countries.

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Rubbish

Addressing the Economics of Waste

We live in a consumer society, but also a wasteful one. The EU will produce approximately 1.3 billion tonnes of waste this year. This is about 3.5 tonnes of solid waste for every man, woman and child. The US processes 2 kg of municipal waste per person per day, the Europeans 1.1 kg; for OECD countries the total comes to over half a tonne per person per year. Only 16% of it is recycled. Apart from the 6% that goes to the compost heap, the rest is put in landfill or incinerated.



The treatment of waste is not only expensive, but causes environmental damage. Making producers of waste pay more of the direct costs can create an incentive to reduce waste generation, as well as increase recycling. The collection of papers in *Addressing the Economics of Waste* assesses the pros and cons of recycling waste,

compared with landfill or incineration. One analysis by the Danish Environmental Protection Agency comparing treatments for PVC waste found that landfilling had the lowest costs, but also the least measurable environmental impacts. By contrast, both the treatment and environmental costs of incineration were found to be higher, whereas a mix of incineration and landfilling was cheaper than, say, chemical treatment processes.

Addressing the Economics of Waste looks at policy instruments like charges and taxes, and how consequent illegal dumping can be avoided by "advance disposal fees" which producers pay towards the estimated costs of eventually recycling their products. This builds on "extended producer responsibility" approaches where producers, importers and distributors organise the collection and recycling of defunct goods like old electrical equipment, used tyres, batteries and so on. Some measures require companies to ensure that new products placed on the market contain a given share of recycled material, though *Addressing the Economics of Waste* wonders if the benefits of such demands outweigh the costs.

An electronic version of *Addressing the Economics of Waste* can be ordered at www.oecd.org/bookshop. But remember, while ordering online may save some paper, the hardware used to send and process your order may one day end up as toxic landfill. ■

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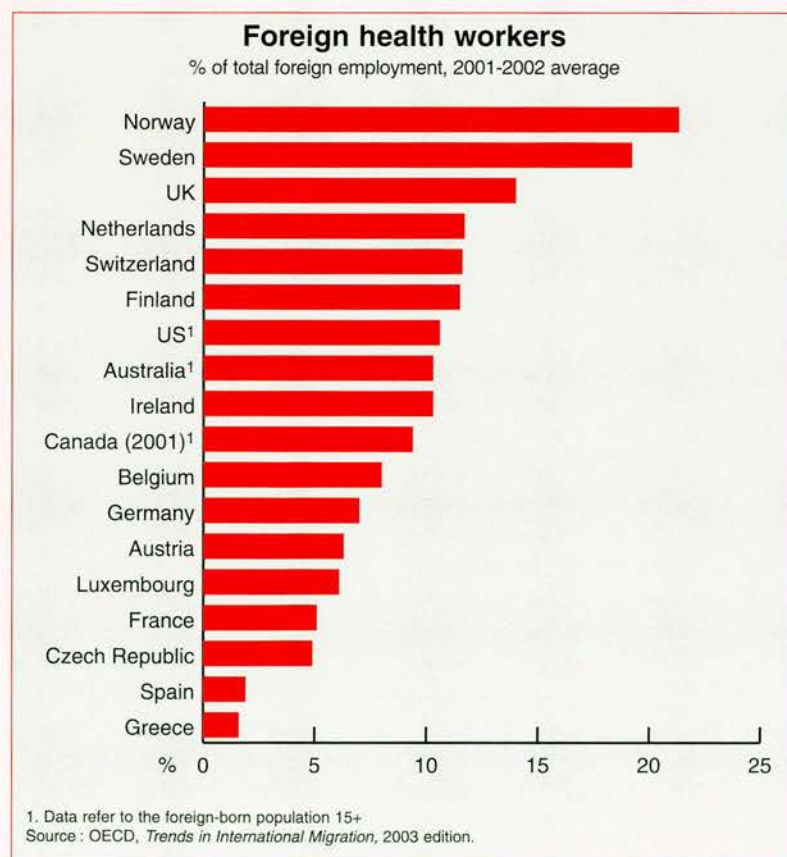
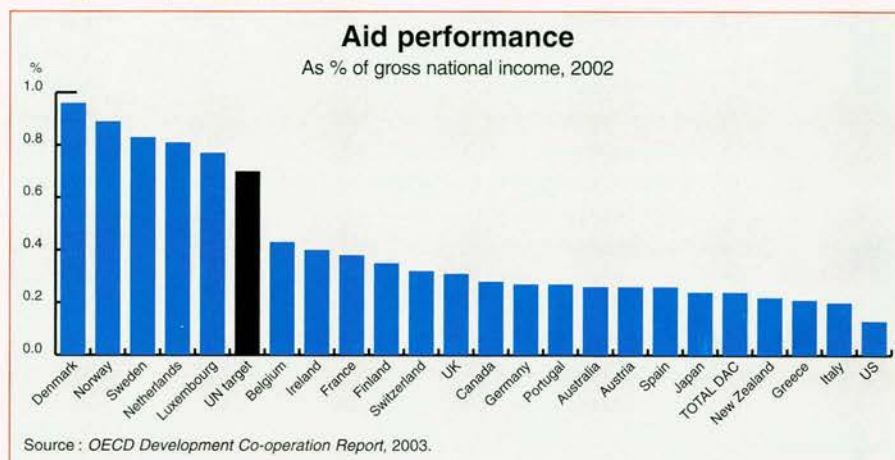
More aid, more effort

Major aid donors have increased their aid efforts, but still have a long way to go if they are to reach the levels they pledged at the UN Financing for Development Conference in Monterrey, Mexico, in 2002, a new OECD report says. International aid rose significantly in 2002 for the first time in several years, to US\$58 billion from US\$52 billion in 2001 at current prices and exchange rates, according to the latest edition of the OECD's annual *Development Co-operation Report*. The pledges made in Monterrey are for aid flows to rise to US\$75 billion by 2006, the largest increase in aid outlays in the 43-year history of the OECD's Development Assistance Committee (DAC), which co-ordinates the development aid policies of the world's principal aid donors. But attaining this level will depend crucially on future decisions by five major OECD countries – the US (the biggest donor in dollar terms), Germany, the UK, France and Italy – as their funding for 2004 leaves them with a considerable gap to bridge if their

commitments are to be met. And even if the 2006 target is reached, aid will still be less than 0.3% of OECD-DAC members' aggregate gross national income, compared with the UN recommended 0.7%. Five countries met or surpassed the UN target in 2002: Denmark, Norway, Sweden, the Netherlands and Luxembourg.

The report concludes that most of the seven Millennium Development Goals set for achievement by 2015 at the UN millennium summit in 2000 are in danger of being missed for most regions, particularly Sub-Saharan Africa. ■
















For more on the goals, see <http://www.oecdobserver.org/millennium>



On the move

Record numbers of people are moving to OECD countries to find jobs or join their families, despite an economic downturn in some countries. More than a million permanent immigrants entered the US in 2001 and 2002, some 25% more than in 2000, according to the latest issue of the OECD's *Trends in International Migration*. It was a similar story in Europe, where several countries, including Austria, France and Switzerland, admitted about 15% more immigrants during the same period, while Canada and New Zealand also saw sharp increases in their immigration flows. Only Japan, Korea and northern Europe saw smaller increases. Migration for jobs increased significantly in 2001-2002 across all types of employment, particularly in the health sector, due to national labour shortages. The health sector now employs 21% of all foreign workers in Norway, 19% in Sweden, 14% in the UK, 12% in the Netherlands and 11% in the United States. Such migration of highly skilled workers, in health care, education and new technologies, has raised questions as to whether it is leading to a "brain drain", causing the home countries of migrants to suffer. After a study of health care in South Africa, the report concludes that emigration may not be the main reason for such difficulties facing developing countries, but it aggravates the problem. ■

			% change from:				level:	
			previous period	previous year			current period	same period previous year
Australia 	Gross domestic product	Q3 03	1.2	2.6	Current balance	Q3 03	-7.86	-4.37
	Leading indicator	Dec 03	0.2	1.3	Unemployment rate	Dec 03	5.60	6.10
	Consumer price index	Q4 03	0.5	2.4	Interest rate	Dec 03	5.47	4.83
Austria 	Gross domestic product	Q3 03	0.3	0.8	Current balance	Q3 03	-1.23	-0.41
	Leading indicator	Dec 03	0.3	7.5	Unemployment rate	Dec 03	4.60	4.43
	Consumer price index	Dec 03	0.2	1.2	Interest rate		*	*
Belgium 	Gross domestic product	Q3 03	0.5	0.8	Current balance	Q3 03	2.26	2.41
	Leading indicator	Dec 03	1.2	5.6	Unemployment rate	Dec 03	8.30	7.70
	Consumer price index	Jan 04	0.3	1.6	Interest rate		*	*
Canada 	Gross domestic product	Q3 03	0.3	1.0	Current balance	Q3 03	5.30	3.41
	Leading indicator	Dec 03	1.3	4.7	Unemployment rate	Dec 03	7.40	7.50
	Consumer price index	Dec 03	0.1	2.0	Interest rate	Jul 03	2.99	2.85
Czech Republic 	Gross domestic product	Q3 03	0.7	3.1	Current balance	Q3 03	-1.41	-1.37
	Leading indicator		..	..	Unemployment rate	Dec 03	7.60	7.40
	Consumer price index	Dec 03	0.2	1.0	Interest rate	Jan 04	2.07	2.66
Denmark 	Gross domestic product	Q3 03	-0.2	-0.5	Current balance	Q3 03	1.73	0.66
	Leading indicator	Dec 03	-0.3	4.9	Unemployment rate	Dec 03	6.1	4.90
	Consumer price index	Dec 03	-0.1	1.4	Interest rate	Jan 04	2.14	2.95
Finland 	Gross domestic product	Q3 03	0.8	1.5	Current balance	Nov 03	0.71	1.43
	Leading indicator	Dec 03	-0.2	5.1	Unemployment rate	Dec 03	9.00	9.00
	Consumer price index	Dec 03	0.1	0.6	Interest rate		*	*
France 	Gross domestic product	Q3 03	0.4	-0.3	Current balance	Nov 03	1.07	4.89
	Leading indicator	Dec 03	0.8	4.7	Unemployment rate	Dec 03	9.50	9.10
	Consumer price index	Dec 03	0.1	2.2	Interest rate		*	*
Germany 	Gross domestic product	Q3 03	0.2	-0.2	Current balance	Q3 03	21.60	19.84
	Leading indicator	Dec 03	0.9	7.4	Unemployment rate	Dec 03	9.20	9.00
	Consumer price index	Dec 03	0.8	1.1	Interest rate		*	*
Greece 	Gross domestic product	2001	..	4.1	Current balance	Nov 03	-1.77	-1.65
	Leading indicator	Nov 03	0.1	3.9	Unemployment rate	Jun 03	9.20	9.90
	Consumer price index	Dec 03	0.4	3.1	Interest rate		*	*
Hungary 	Gross domestic product	Q3 03	3.1	2.9	Current balance	Nov 03	-0.27	-0.33
	Leading indicator		..	..	Unemployment rate	Dec 03	5.90	5.70
	Consumer price index	Dec 03	0.2	5.7	Interest rate	Dec 03	11.78	8.19
Iceland 	Gross domestic product	Q3 03	2.0	3.2	Current balance	Q3 03	-0.20	-0.01
	Leading indicator		..	..	Unemployment rate	Dec 03	3.10	2.80
	Consumer price index	Jan 04	0.0	2.4	Interest rate	Dec 03	4.80	5.80
Ireland 	Gross domestic product	Q3 03	-4.6	-0.1	Current balance	Q3 03	-0.36	-0.30
	Leading indicator	Dec 03	1.7	17.8	Unemployment rate	Dec 03	4.50	4.40
	Consumer price index	Dec 03	0.4	1.9	Interest rate		*	*
Italy 	Gross domestic product	Q3 03	0.5	0.5	Current balance	Aug 03	-2.67	-0.27
	Leading indicator	Dec 03	-1.4	2.0	Unemployment rate	Oct 03	8.40	8.90
	Consumer price index	Dec 03	0.1	2.5	Interest rate		*	*
Japan 	Gross domestic product	Q3 03	0.3	1.8	Current balance	Nov 03	13.58	8.34
	Leading indicator	Dec 03	0.1	3.0	Unemployment rate	Dec 03	4.90	5.50
	Consumer price index	Dec 03	0.1	-0.4	Interest rate	Dec 03	0.03	0.05
Korea 	Gross domestic product	Q3 03	1.1	2.1	Current balance	Nov 03	2.33	0.82
	Leading indicator		..	..	Unemployment rate	Dec 03	3.50	3.00
	Consumer price index	Jan 04	0.6	3.4	Interest rate	Dec 03	4.30	4.90

			% change from:				level:	
			previous period	previous year			current period	same period previous year
Luxembourg 	Gross domestic product	2001	..	1.0	Current balance	Q3 03	0.71	0.13
	Leading indicator	Dec 03	1.8	11.0	Unemployment rate	Dec 03	3.90	3.20
	Consumer price index	Dec 03	0.1	2.1	Interest rate		*	*
Mexico 	Gross domestic product	Q3 03	-0.5	0.4	Current balance	Q3 03	-2.43	-3.65
	Leading indicator	Dec 03	1.1	3.8	Unemployment rate	Dec 03	3.40	2.50
	Consumer price index	Dec 03	0.4	4.0	Interest rate	Jan 04	5.11	8.69
Netherlands 	Gross domestic product	Q3 03	0.0	-1.2	Current balance	Q3 03	5.39	1.50
	Leading indicator	Dec 03	0.6	3.2	Unemployment rate	Nov 03	4.10	3.00
	Consumer price index	Dec 03	-0.6	1.7	Interest rate		*	*
New Zealand 	Gross domestic product	Q3 03	1.7	2.9	Current balance	Q3 03	-1.14	-0.83
	Leading indicator		..	..	Unemployment rate	Q3 03	4.30	5.40
	Consumer price index	Q4 03	0.7	1.6	Interest rate	Jan 04	5.35	5.86
Norway 	Gross domestic product	Q3 03	0.8	0.2	Current balance	Q3 03	6.93	6.05
	Leading indicator	Dec 03	1.0	7.1	Unemployment rate	Nov 03	4.60	4.10
	Consumer price index	Dec 03	0.0	0.6	Interest rate	Jan 04	2.26	5.99
Poland 	Gross domestic product	Q2 02	6.1	1.0	Current balance	Dec 03	-0.71	-0.38
	Leading indicator		..	..	Unemployment rate	Nov 03	19.10	19.80
	Consumer price index	Dec 03	0.2	1.7	Interest rate	Dec 03	5.31	6.11
Portugal 	Gross domestic product	Q3 03	-0.5	-0.9	Current balance	Q3 03	-2.33	-2.30
	Leading indicator	Dec 03	-0.6	0.2	Unemployment rate	Dec 03	6.90	6.00
	Consumer price index	Dec 03	0.1	2.4	Interest rate		*	*
Slovak Republic 	Gross domestic product	Q3 03	2.2	4.2	Current balance	Q3 03	-0.10	-0.54
	Leading indicator		..	..	Unemployment rate	Dec 03	16.60	18.30
	Consumer price index	Dec 03	0.2	9.2	Interest rate	Dec 03	7.15	7.50
Spain 	Gross domestic product	Q3 03	0.7	2.4	Current balance	Oct 03	-2.43	-1.36
	Leading indicator	Dec 03	-0.2	3.3	Unemployment rate	Dec 03	11.20	11.50
	Consumer price index	Dec 03	0.2	2.6	Interest rate		*	*
Sweden 	Gross domestic product	Q3 03	0.5	1.5	Current balance	Dec 02	0.00	0.85
	Leading indicator	Dec 03	1.4	6.0	Unemployment rate	Dec 03	6.00	5.10
	Consumer price index	Dec 03	0.1	1.3	Interest rate	Jan 04	2.60	3.65
Switzerland 	Gross domestic product	Q3 03	0.2	-0.7	Current balance	Q3 03	8.19	7.78
	Leading indicator	Dec 03	0.2	5.3	Unemployment rate	Q3 03	4.30	3.30
	Consumer price index	Dec 03	0.0	0.6	Interest rate	Dec 03	0.26	0.62
Turkey 	Gross domestic product	Q3 03	38.3	4.8	Current balance	Q3 03	-0.86	0.31
	Leading indicator	Dec 03	1.0	4.7	Unemployment rate	Q3 03	9.40	9.60
	Consumer price index	Dec 03	0.9	18.4	Interest rate	Dec 03	26.00	44.00
United Kingdom 	Gross domestic product	Q3 03	0.8	2.1	Current balance	Q3 03	-13.01	-3.50
	Leading indicator	Dec 03	0.8	2.3	Unemployment rate	Oct 03	4.90	5.10
	Consumer price index	Dec 03	0.4	2.8	Interest rate	Dec 03	3.95	3.95
United States 	Gross domestic product	Q4 03	1.0	4.3	Current balance	Q3 03	-135.04	-122.72
	Leading indicator	Dec 03	1.2	8.4	Unemployment rate	Dec 03	5.70	6.00
	Consumer price index	Dec 03	-0.1	1.9	Interest rate	Jan 04	1.06	1.29
Euro area 	Gross domestic product	Q3 03	0.4	0.4	Current balance	Nov 03	2.11	9.42
	Leading indicator	Dec 03	0.2	5.3	Unemployment rate	Dec 03	8.80	8.60
	Consumer price index	Dec 03	0.4	2.0	Interest rate	Jan 04	2.09	2.83

Definitions and notes

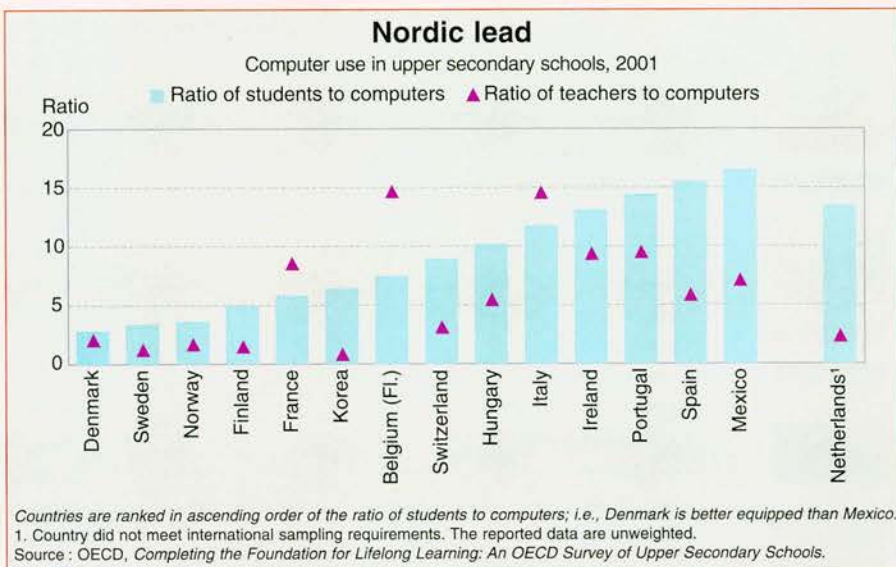
Gross Domestic Product: Volume series; seasonally adjusted except for Hungary, Iceland, Ireland, Poland, Slovak Republic and Turkey; **Leading Indicators:** A composite indicator based on other indicators of economic activity (qualitative opinions on production or employment, housing permits, financial or monetary series, etc.), which signals cyclical movements in industrial production from six to nine months in advance; **Consumer Price Index:** Measures changes in average retail prices of a fixed basket of goods

and services; **Current Balance:** \$US billion; seasonally adjusted except for Greece, Ireland and the Netherlands; **Unemployment Rate:** % of civilian labour force – standardised unemployment rate; national definitions for Iceland, Korea, Mexico and Turkey; seasonally adjusted apart from Turkey; **Interest Rate:** Three months, except for Turkey (overnight interbank rate). * refer to Euro zone. ..=not available.

Source: Main Economic Indicators, February 2004

Computer lesson

Are computers really everywhere? Not in some schools. Governments have invested heavily in the past 20 years to make computers and the Internet available in schools in the most advanced OECD countries, but their use by teachers and students is disappointing, a new report says. In fact, fewer than 20% of upper secondary pupils attend schools with enough workstations for every teacher, according to *Completing the Foundation for Lifelong Learning: An OECD Survey of Upper Secondary Schools*. Only in Korea is there at least one computer available for every teacher, while in Belgium's Flemish community, Italy and Portugal, more than 10 teachers have to share every computer. But matters are not much better for students. In 11 of the 14 countries surveyed, a shortage of computers for students was cited as one of the biggest obstacles to greater use of information technology. On average, in OECD countries participating in the survey, upper secondary

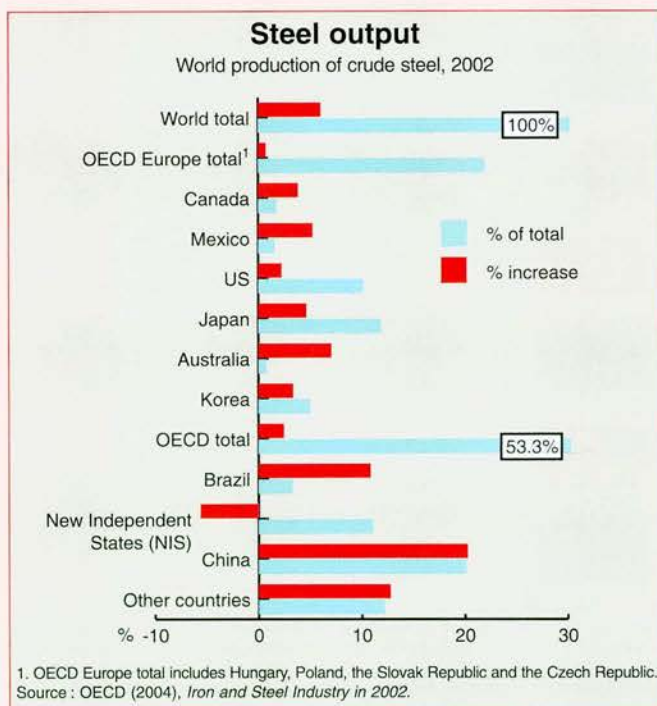


schools have one computer for every nine students. Within these averages, some schools will naturally have better ratios than others, and there are wide differences between countries too. In Denmark there is one computer for every three students, while despite the Celtic Tiger, in Ireland, there are more than 13 students for every computer available. The most common reasons cited for this

rather surprising under-use of IT include difficulties in integrating it into classroom instruction and problems in scheduling enough computer time for classes – in other words, dealing with it as another subject, rather than as a means. Also, teachers lack the skills and knowledge to use it. And for that extra class, hiring IT teachers is the toughest recruitment problem they face. ■

Steel output higher

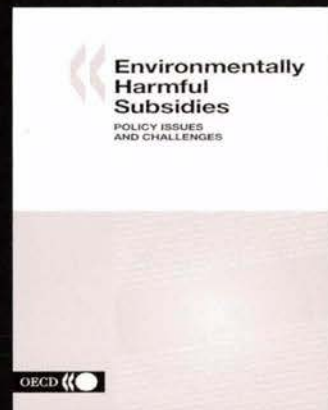
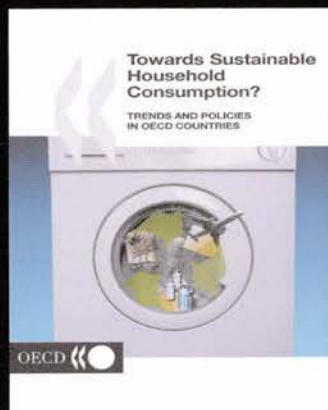
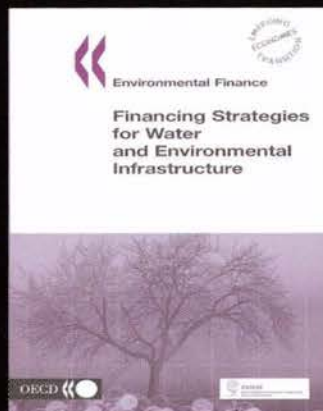
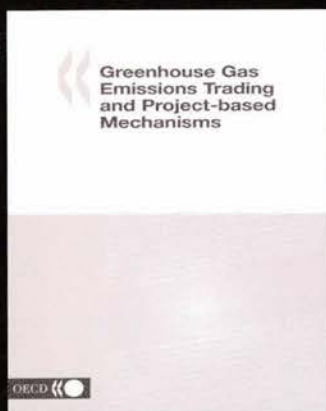
World production of crude steel rose by 6.1% in 2002 to total 902.2 million tonnes, with the OECD accounting for more than half of the total. But the OECD's 53.3% share was lower than its 55.2% showing in 2001, with output rising by 2.5%. This increase contrasts with 2001, when OECD output declined by 4.7%, but overall world output had risen by 0.3%, reflecting an upsurge in Chinese production. Again, in 2002, the steepest increase in output came in China, up 20.3% to 181.6 million tonnes or 20.1% of the total, while output in the New Independent States fell by 5.6% to 99.9 million tonnes, or 11.1% of the total, *Iron and Steel Industry in 2002* showed. The world's major steel-producing economies, accounting for more than 90% of world steel production, are taking part in negotiations at the OECD aimed at eliminating trade-distorting subsidies on steel. A meeting in February, including consultations with industry experts, covered general exceptions to a subsidies ban; preferential treatment for developing economies and economies in transition; notification and surveillance procedures and dispute settlement provisions. Further meetings are planned in late March and early May. ■



For more on the OECD's work on steel: www.oecd.org/sti/steel

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