



## EU emission trading

### Allocation battles intensifying

March 6, 2007

**In the two years that the EU emission trading scheme has been operating its record has been mixed.** As far as the environmental objective is concerned, it has to be said that many EU nations are still a long way from delivering on their Kyoto Protocol commitments to reduce CO<sub>2</sub> emissions. To date, the main talking points have been the hefty windfall profits made by the power industry and the volatility of the emission allowance price. Recently, the price was sent tumbling by the overabundance of allowances (also commonly referred to as “permits”) in the market. Despite a number of teething troubles the start to emissions trading can be deemed a success – thanks also to its symbolic nature.

**The EU's demand that Germany cut its CO<sub>2</sub> emissions more significantly during the second trading period drew strong reactions.**

Industry's fears for Germany's competitiveness are understandable, especially as many EU member states have either been late in notifying their allocation plans or have still not even done so. The EU, however, wants to prevent at all costs the repeated allocation of too many permits, as emissions trading cannot work without a scarcity of supply. The German allocation plan's intended preferential treatment of power generated from coal compared to gas does raise ecological concerns.

**As emissions trading is developed further, attention should be focused on, among other things, the auctioning of allowances.** Market mechanisms could have a positive impact on the allocation process. Greater transparency and a simplification of the system would be the consequences, possibly triggering a more rapid changeover to lower carbon fuels. The proceeds from an auction should be used to fund areas such as climate research projects or general debt repayment. By contrast, returning the auction proceeds to consumers (in the form of subsidised energy prices, for example) would be ecologically counter-productive, although politically opportunistic.

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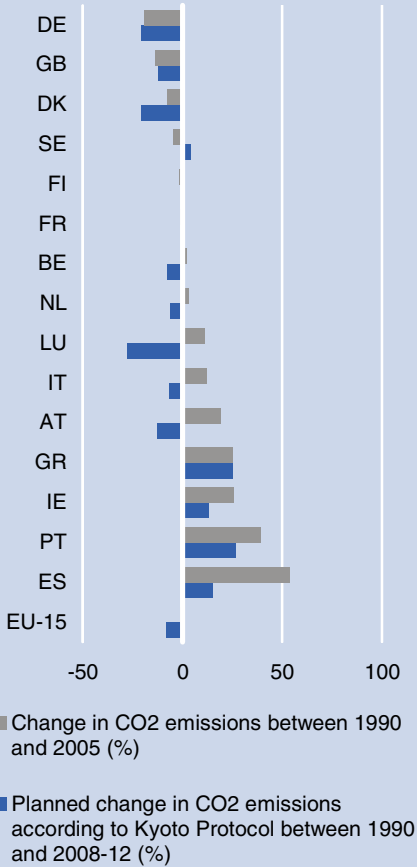
#### Price of EU emission allowances

EUR per allowance to emit one tonne of CO<sub>2</sub>



Source: EEX Leipzig

**Many countries still a long way from Kyoto targets**



**Low intensity of competition has allowed windfall profits to be made**

Early 2005 saw the start of trading in CO<sub>2</sub> emission allowances in the EU. This environmental policy tool is designed to help the EU cut its greenhouse gas emissions by 8% from 1990 levels by the period 2008/12; the EU committed itself to achieving this reduction target in the Kyoto Protocol of 1997, which has been internationally binding since 2005. We shall start by assessing the first two years of emissions trading. Then we shall also analyse the German allocation plan for the second trading period commencing in 2008 and the assessment of it by the EU. We shall then conclude by taking a look at the post-2012 period.

**1. First period of emission trading has been mixed**

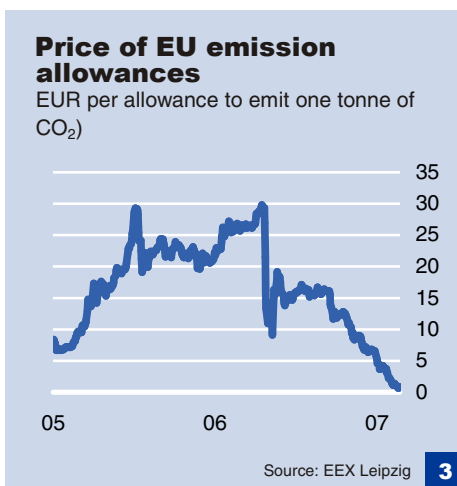
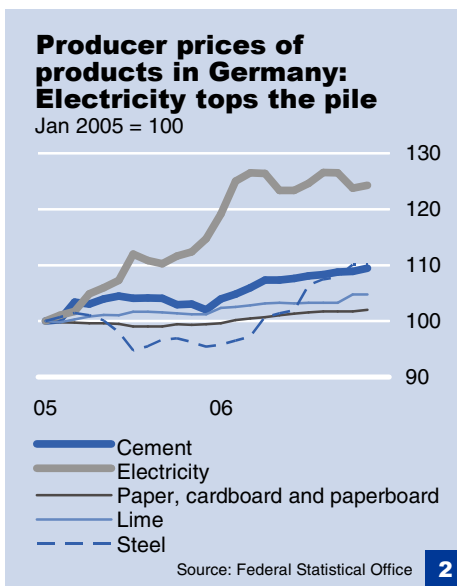
To date, there have pluses and minuses to the EU Emission Trading Scheme. Since emission trading is an environmental policy tool primarily designed to help limit the emission of greenhouse gases the logical way to start an assessment is by looking at whether the environmental objectives have been met. To date, the EU and its member states within the framework of EU-wide burden-sharing have failed miserably to deliver on their commitments to meet Kyoto Protocol emission reduction targets. Within the EU-15 only France, the UK, Finland and Sweden are already hitting their emissions targets. Germany is on course to meet its own target of a 21% reduction. By contrast, countries such as Spain, Portugal, Austria, Italy, Ireland, Denmark and Belgium are in some cases still a long way from meeting their national targets (see Figure 1). By 2005 the EU-15 as a whole had only cut its emissions by 1.2% compared with 1990, thus leaving it nearly 7 percentage points short of its reduction commitment.

The figures illustrate that over the next few years many countries still need to devote much more effort to reducing their greenhouse gas emissions. Otherwise the EU, which forms part of the vanguard in climate protection, will miss its Kyoto Protocol target.

**Power generation companies reap hefty windfall profits**

The most striking market outcome of emissions trading to date has been the power industry's windfall profits, which have sparked controversy. We are all familiar with the background: emissions allowances were handed out free of charge to those plant operators participating in the emission trading scheme. Nevertheless, in particular the producers of electricity succeeded in marking up the market price of electricity to include the opportunity-cost value of the allowances. This is correct from an accounting point of view, since the allowances do have a value and could otherwise be sold. Moreover, emissions trading cannot work without price signals.

Nevertheless, the fact that opportunity costs have been passed on to customers indicates how little competition exists in the power sector. In a more competitive sector where customers can change their supplier relatively quickly and without high transaction costs, the companies would probably not have had so much success in slapping the opportunity costs onto the price of the product. Ultimately, it is the end-consumers of electricity that have shouldered the main financial burden resulting from emission allowances being allocated free of charge. Although this is also the desired outcome of the costs-by-cause principle, private and industrial electricity consumers have been left with a nasty taste in their mouths by the feeling that the power groups have at the same time made huge profits.



Another indication of the lack of competition in the electricity sector is the way that producer prices have developed<sup>1</sup> in the sectors involved in emissions trading. Since trading began at the start of 2005 producer prices for electricity have risen much faster (at 24%) than, for example, those of steel (10%), cement (9%) and limestone (5%) or paper, cardboard and paperboard (2%, see Figure 2). Of course there are a multitude of factors (in addition to emissions allowances) that influence producer prices. However, one can assume that these differences in price development also have something to do with the differing levels of competition within the sectors involved in emissions trading. Accordingly, even in the booming steel sector, where international demand has risen sharply in the last two years, prices have increased more slowly than for electricity.

It is also striking that electricity prices are not currently reflecting either the recent decline in the price of emission allowances to just under EUR 1 per allowance<sup>2</sup> or the calming down of prices on the energy feedstock markets. Both factors were cited as reasons for the rise in electricity prices in 2005.

### **Relatively high volatility – oversupply weighing on prices**

During the first two years of the trading system the course taken by the emission allowance price has been surprising in many respects. Up until spring 2006 the price of an allowance had climbed to nearly EUR 30, which came as a complete surprise to most market watchers. Previous estimates of the peak price were EUR 15 at the most. In spring 2006, when an EU information mix-up helped it become known that too many permits had been distributed across Europe, the price nosedived. This oversupply is the main reason why the permit price has failed to make a sustained recovery since then and has even fallen further in recent weeks to the above-mentioned low level (see Figure 3). Of course another factor is that surplus permits cannot be carried over from the first period into the second and will thus become worthless at the end of 2007. In addition, the hitherto quite warm winter in Europe has probably dampened permit prices.

In hindsight, it is clear that the high price of permits at the start of emission trading was not consistent with the actual scarcity situation. Even back then critics were drawing attention to the lack of transparency in pricing. Experience gained during the first trading period – especially with regard to the oversupply of permits – is a major influence on the EU as it assesses the national allocation plans for the second trading period. Evidently it wants to prevent an oversupply from occurring again at all costs (see section 2).

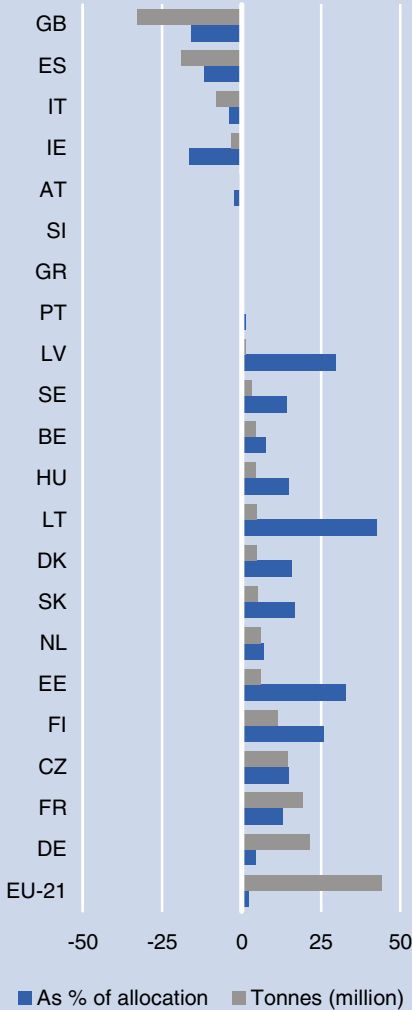
### **Positive start to emission trading**

Despite the aforementioned teething troubles the start of EU emissions trading can be rated as basically a success, especially as the first trading period was designed from the very beginning to be a learning phase. Problems getting the system up and running were to be expected in any case given that this is the world's first emissions trading system on this scale. After all, the diverse interests of individual industrial segments had to be reconciled in quite a short space of time; the run-up period to the start of the trading system was very short. In addition, there was considerable uncertainty

<sup>1</sup> The Federal Statistical Office's producer price index tracks the prices of mining, industrial, power and water supply output produced and sold in Germany.

<sup>2</sup> On the European Energy Exchange in Leipzig.

**Oversupply and under-supply of CO<sub>2</sub> emission allowances in 2005**



Source: European Commission

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**Penalties for particularly inefficient power stations**

**Emissions allowances allocated regardless of energy source**

surrounding the data situation. Given this uncertainty, the oversupply of emissions allowances in the EU-21<sup>3</sup> of “just” 2.5% – relative to the EU-verified emissions of 2005 – is still quite small (see Figure 4). The oversupply in Germany amounts to 4.3% according to the European Commission. That is not a small amount, but in view of the system’s new and unique features and the multiplicity of installations involved it is not a lot really.

All in all, the start of EU emissions trading has a symbolic character. For the very first time life has been breathed into the Kyoto Protocol targets on a grand scale and at the international level via concrete initiatives. This is an important signal both to the countries that have advocated more vigorous climate protection and those nations that have remained more reticent to date.

**2. Tough allocation battles in run-up to second period**

In summer 2006 Germany made timely notification to the European Commission of its national allocation plan for the second period (NAP 2) of EU emission trading. In November 2006 the European Commission concluded its assessment and required that major adjustments be made to the plan. However, in order to make them understandable we shall first detail the key components of Germany’s original NAP 2.

The plan contained a series of changes from the first allocation plan (NAP 1): first and foremost, differing demands will be made of the production sector’s industrial installations, on the one hand, and the power industry on the other. The former have to cut their emissions during the second period by just 1.25% compared with the average for 2000 to 2005. In the energy sector, by contrast, a reduction of 15% is being called for. The reason for this is the stiffer competition in the industrial arena. The high proportion of process-related emissions in several sectors is also a factor. The larger cut required of the power business is aimed specifically at reducing the hefty windfall profits in the sector. The holding of an auction for some of the permits, which could also reduce these windfall profits, continues to be rejected, however. Plant operators will again receive emission allowances free of charge.

**Limited incentive to change energy feedstock**

The steeper reduction provides the electricity sector with an incentive to invest in new, more energy-efficient plants, especially as a penalty clause to be imposed on particularly old and inefficient plants will reduce their allocation by a further 15%. All the same, the NAP 2 contained only a few incentives for switching to less CO<sub>2</sub>-intensive sources of energy (e.g. from coal to gas) as part of the modernisation of Germany’s outdated power plants that will occur over the next few years. New power stations are to be allocated the emissions allowances they require for standard operation absolutely free of charge regardless of the fuel they use.<sup>4</sup> The benchmark for allocation is the most modern power station technology available for the respective source of energy. These fuel-based benchmarks for coal and gas power stations automatically result in coal plants

<sup>3</sup> They are the member states in which the EU was able to verify CO<sub>2</sub> emissions at the start of 2006 thanks to an already functioning emissions register, i.e. the EU-25 excluding Cyprus, Luxembourg, Malta and Poland.

<sup>4</sup> Here it should be noted that in the NAP 2 the standard load factors during normal operation for coal, gas and steam power stations have been set at the same level (7,500 full-load hours per year). Since gas-fired power stations have usually had shorter annual operating periods in the past, this provision could lead to their being allocated too many permits.

receiving more CO<sub>2</sub> emission allowances than eco-friendlier gas and steam plants to produce the same amount of electricity; the reason is that coal has a higher CO<sub>2</sub> content than gas. Moreover, according to the original plan new plants are to be exempt from additional emission-reduction requirements in their first 14 years. This provision was criticised as soon as the NAP 2 was unveiled as it would not only favour coal for generating electricity, but was also seen as creating the risk that the energy mix in Germany would become set in stone for years to come and be dominated by an energy source with high CO<sub>2</sub> emissions.

**Simplifications make system less bureaucratic**

The NAP 2 also proposes more extensive use of the Kyoto Protocol's flexible mechanisms (Joint Implementation and Clean Development Mechanism) in future. Up to 12% of Germany's emission reduction commitments could be realised via such climate protection projects abroad. Also, the NAP 2 does without some special provisions, thereby making the system less bureaucratic. This also applies to a *de minimis* rule for small emitters who will receive the allowances they require absolutely free of charge.

***European Commission demands more exacting climate protection target***

**GEM makes significant revisions to own reduction plan**

In Germany's NAP 1 the plants involved in emissions trading were allocated allowances to emit 499 million tonnes of CO<sub>2</sub> (including a reserve of 4 million allowances). In the original NAP 2 this number was reduced to 482 million allowances.<sup>5</sup> Before the European Commission had even completed its assessment the German Environment Ministry (GEM) had reduced its total emissions target from 482 to 465 million tonnes. This became necessary when additional data revealed that actual emissions were lower than had originally been projected. The Commission had also indicated that the allocation in Germany was too generous. This retrospective demand by the GEM meant that the energy and industrial sectors combined would have to make a bigger cut in their emissions of 26.5 million tonnes instead of 15 million tonnes.

**EU calls for even larger reductions**

Then, in late November 2006, like a bolt from the blue, came the EU decision that Germany would have to reduce its emission target again to 453 m tonnes of CO<sub>2</sub> – the equivalent of a 6.6% reduction compared with 2005. The Commission assesses the national allocation plans according to specific criteria.<sup>6</sup> Among the most important ones are the respective national reduction targets from the Kyoto Protocol and the forecasting of the future development of emissions and the scope for reducing emissions. Other factors taken into consideration for the assessment are the potential distortions of competition and disruptions to the single market that could result from the NAP 2.

**EU also objects to Germany's NAP 2 for competition reasons**

According to the European Commission, Germany cannot meet its Kyoto target with the NAP 2 submitted by the GEM.<sup>7</sup> The expected emissions for the period 2008-12 would be too high and the

<sup>5</sup> However, new installations have been added since the first trading period and they are to be allocated 11 million allowances. The "correct" figure for comparison with the 499 million allowances from NAP 1 is thus 471 million (-5.6%).

<sup>6</sup> It should be noted here that just ten of the 27 EU member states submitted their NAP 2 on time. It is particularly those countries that are a long way from meeting their national reduction targets that were behind schedule or still are. Only the UK's NAP 2 largely gained the approval of the European Commission.

<sup>7</sup> The EU assesses each country's NAP 2 according to the progress made towards meeting its Kyoto target, the activities planned by the country (purchase of extra allowances), the measures in the sectors not covered by EU emission trading and the compatibility of the plans with the national transport projections.

potential to reduce them is judged to be too small. Also, insufficient data was supplied to support the planned emission cuts in the transport sector. And finally, for competition reasons the EU has rescinded the privileges for a number of plants due to come on stream before 2008 and the exemption from the above-mentioned obligations to make reductions that extend beyond 2012.

### ***Huge conflicts of interest becoming apparent***

#### **GEM under fire from many sides**

Although the emission reduction called for by the Commission is “only” some 2.5 percentage points higher than that set by the GEM in its amended NAP 2, the debate in Germany has rapidly become more contentious. The GEM suddenly found itself caught between a rock and a hard place. It was subjected to accusations from industry of not defending German interests stoutly enough in Europe. It argued to the EU that its NAP 2 was sufficient to meet the Kyoto target. And the fact that at the same time environmental groups explicitly welcomed the European Commission’s demands shows how much the different opinions diverge. They point out that the power groups and industrial companies made a pledge in 2000 as part of the climate protection agreement that by 2010 they would reduce emissions by 45 million tonnes, a bigger cut than that demanded by the EU.

Ultimately the current debate is about the conflict between economic growth and protecting the climate/environment. At the political level the basic problem lies in tackling climate change: the threat is uncertain and not yet acute enough to be given higher priority than employment considerations.

#### **Industry fears for German competitiveness understandable**

At the company level climate protection is of course a cost factor. Investments in more energy-efficient plant, processes or products often do not become amortised until many years later. It is therefore understandable that German industry fears that Germany would become less competitive than other European countries or nations further afield, if it were to be over-eager in leading the way in climate protection. This applies all the more so in the current situation with the EU already making extra demands of Germany at the same time as nations that are still a long way short of their reduction targets have either submitted their NAP 2 late or not even submitted it at all.

#### **Preferential treatment of coal based on energy policy realities**

The planned preferential treatment of coal-generated power in Germany’s NAP 2 is also aligned with domestic energy policy realities, since coal will be indispensable for power generation over the coming years.<sup>8</sup> Also, it is understandable that business wants greater investment certainty in view of the imminent modernisation of Germany’s power stations. The incorporation of these factors in the NAP 2 and the non-use of fuel-neutral benchmarks in allocating the allowances can be seen as negotiating successes from the industry’s point of view.

### ***Emissions trading not an end in itself***

#### **Long-term opt-outs for coal-fired power stations are ecologically objectionable**

It is, however, often forgotten that emissions trading is not an end in itself, but an instrument designed to help the energy sector and industry achieve climate targets in the most economical way. That is why objections should be raised against the NAP 2’s privileges for coal in Germany. If new power plants are exempted from having to make emission reductions for years, this will mean future reduction

<sup>8</sup> Of course the preferential treatment of hard coal and above all lignite also incorporates arguments regarding the security of supply (compared with natural gas).

targets being transferred to other emitters. In this connection the European Commission points out that Germany is not the only country in the EU whose power plants are due for modernisation. That is why it is not really convincing when the German electricity sector claims that it needs investment guarantees in order to commit capital expenditure to new plant. Germany is the only country that has submitted an allocation plan containing emission guarantees that apply after 2012. According to the European Commission, such commitments, however, fall under the European state aid rules.

In the meantime the EU and the German government have largely reached agreement. The EU got its way over its demand for a lower emissions cap of 453 million tonnes. Furthermore, the long-term exemptions from emission reductions for new installations are no longer to be included in Germany's revised NAP 2. The fuel-based benchmarks for power stations will, however, be retained. Details of the final NAP are to be published in the near future. The agreement in principle is welcome news.

#### ***Emissions trading requires allowances to be scarce***

One of the most important lessons to be learnt from the first trading period is that an oversupply of emission allowances hinders the operation of the trading system. Without scarcity, no trading takes place and the entire system becomes obsolete. That is why the European Commission has a very strong interest in setting more restrictive emission caps for the second trading period. This is also the case especially as the Commission expects carbon intensity in the EU to carry on declining over the next few years owing, among other things, to the continued expansion of renewable energies. In setting the caps the EU must of course apply the same strict criteria to all countries. If this is guaranteed, then fewer objections can be raised against strict emissions limits.

Europe should also remain in the vanguard of climate protection going forward. If European emissions trading proves a success, there will be more chance of getting other nations to climb on board. An overgenerous allocation would make this a wasted opportunity. In addition, more intensive climate protection efforts can pay off in the medium to long term. Technologies to combat climate change and challenge products and processes with high energy consumption will become increasingly important in the coming years. Today, German industry is already succeeding in many segments thanks to the energy efficiency of its products, as shown not only by the success of the German auto industry in the US. In industries with high process-generated emissions it of course does not make sense for Europe to go it alone and set emission caps so low that manufacturing in the EU is no longer possible. This would merely lead to relocation of production to other countries with arguably much lower environmental standards.

#### ***Difficult to forecast prices for the second trading period***

Experience from the first trading period shows how much the development of emission permit prices depends on the size of the original allocation. Since no-one knows yet how each EU member state's NAP 2 will ultimately look and how the European Commission will react to overgenerous allocations, it is currently impossible to make a well-founded price forecast. However, it is evidently expected that the allocation for the second phase of trading will be smaller. This is indicated by the price on the futures market for emission permits for the second phase of trading, which

**EU's declared objective is stricter emission caps**

**Europe should remain in the vanguard of climate protection**

**Uncertainty about final allocation makes it difficult to forecast prices**

recently stood at about EUR 15. However, this price has roughly halved in recent months.

The impact on the price of electricity depends primarily on the energy mix and the short-term CO<sub>2</sub> substitution options as well as the intensity of competition in the electricity sectors of the individual countries. The basic situation is that the bigger the role played by coal in the energy mix and the less competition exists in the electricity sector, the greater the impact on the electricity price.

**Climate protection and low energy prices are contradictory objectives**

The political objective frequently expressed in both the EU and Germany of achieving lower energy prices at the same time as implementing climate protection measures should be rejected. The objectives of climate protection and lower energy prices (for fossil fuels) are contradictory. Higher energy prices are desirable from an ecological point of view. Although more competition in the electricity and gas sectors could – ceteris paribus – lead to a reduction in prices, this will probably be more than outweighed in the medium term by rising commodity prices and higher fiscal burdens. In this respect, more honesty is needed from all parties.

**3. Outlook: Potential exists for an efficient climate protection instrument extending beyond the EU**

Emissions trading has the potential to mature into the most important international instrument for combatting climate change. A number of modifications could make the system more attractive and efficient.

***Auctioning of permits brings many advantages***

Over the next few years a gradual increase in the proportion of allowances that are auctioned – instead of their being allocated free of charge – would bring major benefits. It is therefore regrettable that hardly any EU nations are exploiting the opportunity to auction up to 10% of allowances in the second phase of trading. The argument made by the GEM, that it does not want to provide electricity suppliers with any reason to raise prices, is not really convincing. For even now – without auctions – the market value of the permits is being added to the price of the electricity. An auction could thus reduce the windfall profits of the electricity companies. It is clear that ultimately it is the end-consumer who is saddled with the extra costs.

**Rejection of partial auctioning of permits for the second trading period is disappointing**

If permits were auctioned, the market mechanism would already unleash its positive impact in the allocation process; in the theoretical ideal case the marginal abatement costs correspond with the auction price. Other advantages would accrue from the simplification of the system. The drawing-up and coordination of installation-based volume plans would no longer be necessary. The emissions cap would merely need to be set at the national level; differing reduction targets would not be required.

**Auctions can simplify emissions trading**

**Auction provides incentive for switching to energy sources that generate lower CO<sub>2</sub> emissions**

A decision to no longer allocate allowances free of charge would reduce the influence of lobby groups that are currently attempting to steer the outcomes of this process in their own favour. Also, all benchmarks (whether fuel-dependent or not) could be ignored. A more rapid changeover to lower carbon fuels could then be expected. Given the long lifespan of power plants, however, the auction share should be increased only gradually, so that power station operators would also have the opportunity to change their energy mix. It would therefore make sense to start exploiting the opportunity granted by the EU in the second phase of trading to auction up to 10% of permits.

The EU could already boost planning certainty now by declaring that a certain proportion of permits will have to be auctioned for the third phase after 2012. Since gas is more attractive than coal in an auction because fewer permits are required, the power business could gear its long-term power station construction planning towards these EU declarations.

For competition reasons an auction could initially be restricted to just the power industry. However, this would only be an interim arrangement. The long-term objective should be the auctioning of all the permits of every emitter involved in emissions trading including new installations.

#### ***Auction proceeds can be used in a variety of ways***

#### **Proceeds could be used for...**

A quite crucial benefit resulting from an auction would also be the revenues generated. This immediately also raises the question of potential uses of the proceeds. From an ecological point of view it of course does not make sense to return the proceeds from the auction to consumers (for example in the form of subsidised energy prices), even though this would be politically opportunistic. There are, however, several sensible uses for the proceeds:

#### **... environmental projects,**

— Funding could be provided for concrete environmental projects or for research and development in the environmental technology sector. One conceivable option would be using the proceeds for research into CO<sub>2</sub> capture at coal-fired power stations or to support household energy-saving initiatives (e.g. heat insulation).

#### **... measures to combat the consequences of climate change,**

— Another alternative would be the funding of measures to mitigate the negative consequences of climate change. These could include, for example, dyke-building measures or improvements to irrigated agriculture in certain countries.

#### **... debt repayment**

— Reducing public debt would on the one hand benefit consumers by reducing future tax payments, and, on the other, energy prices would remain high, so that no incentive would exist for wasting energy.

#### **or measures to promote competition**

— Furthermore, the auction proceeds could be used to fund infrastructure projects that promote (cross-border) competition in the electricity and gas markets (e.g. investment in interconnectors).

#### ***Significant revenue potential***

Depending on how the auction process were to be structured, it could generate significant revenues. A hypothetical example illustrates this: if all emission permits (in Germany) were to be auctioned from 2013 and there were 400 million permits available within a price range of EUR 15-25 each, annual proceeds of EUR 6-10 billion could be generated via auctions. The potential revenues would of course vary in size, if only a fraction of permits were to be auctioned, the permit price were to be higher or lower or the emissions cap were to be set at a more generous or restrictive level.

Regardless of the speed at which an auction gains importance during the allocation of permits, the current debate surrounding the assessment of individual NAP 2 proposals highlights the need for greater harmonisation of allocation in the EU.

#### ***Expansion to other sectors, greenhouse gases and countries***

The EU is seeking the extension of emissions trading into other sectors and to greenhouse gases. This is to be welcomed. As the number of market participants increases, the liquidity of the market

### Plans to include air traffic in emissions trading

risers. In addition, the burden can be shared out among more parties.

Initial plans for incorporating air travel into emissions trading have already been published by the EU. According to these plans, intra-European flights are to be subject to emissions trading from 2011. From 2013 trading is to be extended to flights into and out of the EU. It remains to be seen whether such a plan will fall foul of international aviation treaties or opposition from southern European countries. The latter have hitherto rejected any sort of fiscal levy on air transport by stressing the importance of the tourism industry.

The sector itself is however keenly aware that it will also have to make its contribution to the achievement of international climate protection objectives sooner or later, especially as the industry is still free of either tax on jet fuel or other fiscal levies (apart from take-off and landing fees). All the same, if emissions trading were to be limited to European airlines or internal European flights, the impact on competition would have to be taken into consideration. There would be the risk of demand then shifting to non-European airlines – with the corresponding reduced positive impact on the environment.

Greater incorporation of other production industry sectors into emission trading seems to make sense. The production industries in Germany have long been the beneficiaries of exemptions from ecological tax. These exemptions could in future be tied to participation in emission trading. The inclusion of other greenhouse gases in emissions trading is also to be welcomed in principle. However, this option should be examined closely to ensure that excessive transaction costs would not be involved.

### ***Greater freedom for applying flexible Kyoto Protocol mechanisms***

Ultimately, extending the system to other countries would enable the instrument to be gradually imbued with a global dimension. It would then not be beyond the realms of possibility that future individual US states might declare their interest in participating. This could soften up the US government's hitherto negative stance. A trading system that is as transparent and simple as possible is an important prerequisite for getting non-EU states interested in joining. Too much bureaucracy tends to scare away interest.

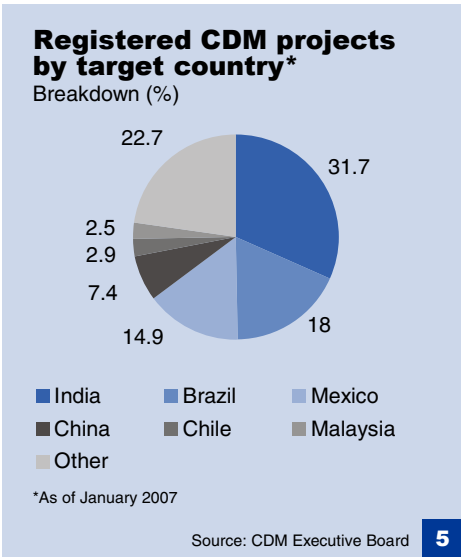
A quite concrete way for EU emissions trading to extend climate protection to non-EU nations is provided by the flexible mechanisms of the Kyoto Protocol: Joint Implementation (JI) and the Clean Development Mechanism (CDM; see box), which are project-related mechanisms.

There are limits to the counting of emissions allowances from JI or CDM projects towards one's own reduction targets; the ceiling is calculated depending on the emission reductions already achieved by individual countries. The EU ensures that the flexible mechanisms are implemented in addition to the national reduction initiatives. This is understandable from an ecological standpoint, since nations should be prevented from buying their way out of making any domestic emission reductions. Many countries, however, are not using the scope available to them with regard to JI and CDM projects.

Nevertheless, more flexible and more extensive use needs to be made of JI and above all CDM projects in the longer term – despite the potential for a certain amount of misuse. This is backed up first and foremost by the remote likelihood that the big emerging markets

**JI** and **CDM** enable investments in climate protection projects abroad to generate emission allowances. If the focus of this investment is another industrialised country, it is classified as JI. The allowances generated in this way are called Emission Reduction Units (ERU), which from 2008 – under certain conditions – can be counted towards a country's own reduction target. If the projected-based investment takes place in a developing country, it is called CDM. Such investments generate Certified Emission Reductions (CER), which investors – where available – can already count towards their reduction target for the first trading period.

### CDM projects enable emerging markets to be integrated into climate protection



like China or India will set their own quantitative reduction targets in the near future. Nor will these countries be giving up coal as a source of energy in the next few years. Climate protection measures on the ground must therefore be intensified using other means. Structuring CDM projects more flexibly can get these countries more firmly integrated in climate protection. The construction of efficient power stations in emerging markets helps the global climate. The potential for reducing emissions is massive in this area. Furthermore, it costs less to cut emissions in emerging markets than in (Western) industrial nations. A more climate-friendly growth path could be pursued in these fast-growing economies.

The number of CDM projects has risen rapidly in the more recent past. At last count, there were over 1,300 CDM projects in the pipeline, of which nearly 500 were already registered with the CDM Executive Board at UN level. These projects can be expected to yield more than 730 million Certified Emissions Reduction (CER) allowances by the end of 2012. To date, the projects have been concentrated in India, Brazil, Mexico and China. Evidently the EU also sees CDM projects increasingly as instruments for drawing emerging markets into climate protection. At the international level the ground must now be prepared to ensure that, post-2012, the flexible mechanisms from the Kyoto process retain their importance for protecting the climate.

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