

AGF: PETRE Partner Meeting, Wednesday 28 November 2008

Present: Chair: Paul Ekins (PE), Attendees: Christian Lutz (CL), Bernd Meyer (BM), Petr Sauer (PS), Jaroslav Klusak (JK) Stefan Speck (SS), Stefan Giljum (SG), Ariane Jungnitz (AJ), Roland Zieschank (RZ), Martin Janicke (MJ), Hector Pollitt (HP), Sudhir Junankar (SJ), Philip Summerton (PSu), Ben Shaw (BS)

Apologies: Terry Barker

1. Welcome and introduction, agreement of agenda

PE: Introduced the meeting and welcomed everyone.

2. Berlin/London meetings/events

a) Partner meeting, Berlin November 2007

b) Advisory Council meeting, Berlin November 2007

c) AGF mid-term event, Berlin November

There will be two plenary discussions in the morning:

1 from PA

1 from SG

There will be additional papers given in the afternoon session from:

SS, PS/JK, PE (AV), BM (TB)

SS: what is the point of distributing the conference papers?

PE: to allow discussants time to read and to ensure that they had been done and were ready

ACTION: All papers submitted to the conference should be submitted to the website to go on the INTERNAL part of the website

d) London meeting, 5 December 2007

3. Administrative issues

a) Further staff and administrative issues

PE: KCL will take on the full administration of the project as of Jan 2008, so all documents should go to PE.

SG: SERI are due to be paid on a 6 monthly programme.

PE: Will try to assess whether groups are paid directly by AGF or through PSI/KCL

SJ: Payment is received directly from AGF after PSI/KCL sign off on the number of hours claimed by organisations

ACTION: PE will organise payment to SERI following SERI submitting accounts of time spent on the project

PS: payment times do not fit well with the university pay schedule could UEP reorganise their payment timings with PE.

b) Budget update

CE: On budget
GWS: On budget
SS: On budget
UEP: On budget
FFU: On budget
SERI: On budget
PSI: quite challenge on WP2
KCL: quite challenged

PE: Asked about travel budget update:
SS: What are AGF paying for this trip?
PE: [clarified post-meeting] AGF are paying for the nights of Nov.28, 29 and 30; partners will have to pay for 27. AGF are paying for travel costs to and from Berlin.

Travel budgets had been reallocated as follows

PSI 9,200
CE 4,350
GWS 6,300
SERI 6,300
FFU 6,850
UEP 7,600

PE: FFU will pay for dinner on 28/11/07

Everyone seemed OK with their travel budgets, but these could be revisited at future partner meetings if problems developed

c) Website (working papers and other documents)

PE: Andy Venn will continue to update the website in the short term until PE has trained someone at KCL

SS: suggested that conference presentations should go on the external part of the website

PSu: suggested that the model comparison paper written by TB and BM could go on the external part of the website

PE: agreed the following should go on the website:

WP1a: 2 papers from PA (external depending on comments from discussant)
WP1b: 1 paper from PSI (internal)

WP1c: 1 paper from PSI, 1 paper from FFU in December (internal)
WP2: nothing as yet
WP3: 2 papers: model comparison and material flows treatment (external)
WP4: 2 presentations (external) + 2 papers for the internal website
WP5: 1 method paper (external), 1 presentation + conference paper for the internal website

PS: suggested that project summaries could go on the project website to help with informing Czech policy makers and the UEP as to what the work involved
PS (post meeting): I had in mind any policy makers and all who might be interested in getting information/findings about ETR in mind (i.e. not only Czech policy makers and people from UEP) - there is a gap between findings formulated in technical language and the understandable information available for various users

PE: this will not be possible in the short term, but perhaps the Prague meeting could be followed by a project update and overview to interested parties

SS (after meeting): Papers/presentation should be sent asap so that Andy Venn will be able to put them on the website

d) Other Issues

PE: what about the cost of the data acquired by SERI?

SG: CE, GWS and SERI have agreed to equally split the cost of the data: 1,200 euros, 400 from each institution

PE: EEA funding proposal: EOI for three years has been accepted, we are now waiting which sub projects EEA will move forwards with.

ACTION: PE to discuss with David Gee.

4. Project Review: Work packages and outputs

Work package 1a

PA has completed a paper on the estimation of energy demand from the UK and Germany.

1978-2004 data for the UK
1991-2004 data for Germany

UK results look quite promising. There are 10 different estimators

For the UK activity had an average elasticity of 0.56 and price -0.75

The results were quite different depending on which estimators were used.

SS: What energy prices did you use?

PA: IEA data: Fuel prices are weighted by consumption for each sector to give an average energy price

SS: But sectoral fuel prices can vary greatly

PSu: In MDM-E3 we calculate implicit fuel prices for each sector to allow for this variance.

PA: Didn't feel that the energy value data was adequate to make implicit prices.

PA: The paper shows the importance of the price effect on energy consumption.

PE: Have estimates in Germany been inconclusive?

PA: Yes, due to the short time span

Work package 1b

PE presented his and Andy Venn's paper on linking environmental quality with happiness. (Attached)

They have found that the environment is often missed in the discussions on well-being.

MJ: There has been work that links happiness to expectations rather than current living levels.

SG: The comment that growth and sustainability have never been reconciled in practice seems strong

PE: They have only been reconciled in partial examples, never in full.

Work package 1c

MJ: The purpose of the work package is to try to describe eco-industries, both their structure and their dynamics.

Eco-industries have two parts:

1. pollution control
2. resource management

In Germany, the environmental industry is not a part of official statistics.

In different scientific studies, eco efficient products are often not included. But resource management seems to be the faster growing sector.
It is, at this stage, not verifiable, whether there is a contribution to industry restructuring.

There are also disparities between the E&Y data set and other data sources.

We looked at 4 case studies:

1. diesel cars
2. eco homes
3. industrial waste recycling
4. renewable energy

MJ/RZ hope to provide a paper in December, with forecast growth rates for the eco-industries in the EU, Germany and the UK.

It is difficult to calculate growth rates, the eco-industry is growing at 8% in real terms if you count the whole industry, but the new industries are growing at 30%.

If the sector did not exist there would be limitations to overall growth.

RZ: Half of yearly Chinese growth is lost through environmental degradation and therefore could be avoided through eco industries.

RZ: There are a few questions to be considered:

1. What is the role of eco-industry for a) a better resource productivity, and b) as a fast growing sector for sustainable growth?
2. what is the role of ETR to promote resource productivity?
3. what is the policy mix required to foster eco-industry and promote resource productivity?

SS: Eco industry growth is not always correlated to environmental improvement because one-off improvements can lead to long term benefits. eg measures to improve water supplies.

BM: Essentially there are two view points, one viewpoint from the qualitative analysis and a separate viewpoint from the modeling.

MJ: It is also important to recognize that it is difficult to measure the counter factual of not introducing environmental measure through eco-industries.

Work package 3

SJ: Gave presentation on WP3 progress

CL: discussed model developments and improvements to GINFORS. GWS have recently looked at post 2012 EU ETS study and CL will distribute an English summary to

partners. The study looked at both the ETS and CO2 tax. Technology parameters are adjusted to results from a bottom up model.

CL: is awaiting aggregated data from SERI to update materials flow treatment (discussed later)

CL: also brought up the issue of eco-industries and how the modeling might relate to WP1.

HP: described that CE split input-output tables (which involved separating out the eco-industries from the existing I-O tables) as part of GHK project, to which AM had contributed, and thought this data had been shared with PSI for WP1

ACTION: HP will redistribute data

SJ: Discussed the key points arising from the model comparison and literature review.

SS: asked about papers.

SJ: CE and GWS will provide papers for the internal on:

E3ME

GINFORS

Material Flows

Literature review (as one or two papers)

SJ: Round one of modeling results will meet the timetable for the May meeting.

SJ: opened a discussion on the scenario layout:

PE: What level should the high oil price be, general consensus was that the high oil price scenario should reach \$100 pb in real terms by 2020.

There was overall agreement with this point: the oil price should be higher in 2020 in real terms than it is in 2007 for credibility

SS: wanted to make sure that the oil price remained plausible and that CE/GWS did not model an oil price of \$150 pb

PE: what level of EU carbon (ie GHG) target reductions are we aiming at, 20%, 30%? Etc for 2020

HP: To reduce this through just the EU ETS mechanism would require an EU ETS reductions of around 35%

SJ: noted that the EU 20% target implies 15% reduction in CO2 as the Commission baseline projects larger cuts in non-CO2 GHGs.

Overall there was broad agreement that there should be a 30% reduction as a target and the policies should reflect this overall ambition

SS question for clarification (after meeting): my understanding is that the 30% reduction refers to GHG – are you modeling GHG or only CO2?)

PSu response: we will model GHG reductions but the focus will be CO2

It was also thought that the international movement was towards even lower long term carbon targets

MJ cited the most recent IPCC report, saying as much as 95% reduction could be required in Europe

SJ: added that the UK CCC was also looking at an 80% reduction by 2050

BM: made the point of cooperative action and how should CDM and JI be treated?

PE: The scenarios should try to capture the domestic effort: the framework for the modeling should examine how to sustain low carbon economies in Europe, and should therefore not look at CDMs and JI.

SS (post meeting): (for clarification: does this mean that you will model a 30 percent reduction in CO2 emission or GHG at the EU level, i.e. target has to be achieved with unilateral (EU) measures! If this is the case we could argue that the scenarios are quite 'radical' (Udo Simonis plea for radical changes)).

PSu: We will model either 20% reductions unilaterally or 30% reductions with cooperation.

SS: the modeling should consider sector neutrality, whereby the tax raised from households should be redistributed to households, whereas tax raised by industry should be reallocated to industry, i.e. there should be broad sectoral neutrality.

PE: what proportion of the revenue should be spent on low carbon technologies or innovation and how are we going to do this in the modeling

ACTION: PS and HP to provide a working note for PSI, FU, GWS and Stefan Speck on modeling eco-innovation Due 15 Jan.

SG stated that the material flows data required by GWS would be ready by February at the latest

SG: there needs to be a discussion between GWS and SERI as to exactly what data GWS need and what SERI have available.

ACTION: SG will discuss model data requirements with GWS.

ACTION: SG will provide data by end of February.

HP: E3ME uses Eurostat data, it will be necessary to compare the results of the EUROSTAT data with the aggregations from SERI's data collection

SG: SERI dataset is global and covers all GINFORS countries; this dataset will be harmonised with EUROSTAT aggregated data where possible

HP: The EUROSTAT data only covers EU15 + 4 of the new member states

SS (after meeting): I have another question regarding the design of the scenarios, in particular with regard to the different recycling mechanism adopted in the different scenarios – i.e. reduction of labour taxes versus support for eco-innovation. Have we made a final decision?

PSu(response): A decision has not been finalized but my feeling from the conversation is that we aim for some sort of broad sector neutrality where possible, e.g households compensated through income tax reductions and industry through SSC reductions.

Work package 4:

PS: Conducted interviews with 7 key stakeholders

- produced a working paper which will be discussed at the conference
- following the qualitative analysis seems to have been a good option
- has provided good insight as to the CZ political process and why after 10 years of discussion on ETR CZ is only now introducing a tax on energy and only in line with the minimum tax directive
- Next steps will be to conduct more interviews and provide preliminary policy recommendations to other EU member states

PS: Ministry of Environment (MoE) in CZ controls all environmental charging which is then used through the Environmental protection funds (SEPF) to reduce environmental damage

if an ETR was fully introduced this power would be given to the Ministry of Finance (MoF) who would then reallocate the revenues via standard procedure of allocating the State budget, i.e. not necessarily on environmental protection. in my opinion ETR has not been introduced in CZ because the MoE would lose its spending power

PS: added that there were further question for research:

- should CZ switch to an ETR controlled by the MoF
- should funds still be reallocated to the MoE SEPF
- how should the revenues arising from EU ETS auctioning be spent
- how the co-funding of the project supported from Structural Funds should be managed; is the SEPF a good option?

PS thinks that there should be co-funding from MoF towards SEPF in the EU new member states to try to mitigate the problem of no action. Furthermore he suggested that this was a better way of leading to overall environmental improvements as SEPFs are often successful

JK: added to this point saying that he thought environmental charging should be backed up by payments to SEPF funds to mitigate environmental degradation

PS: the SEPF entails large admin costs which can dent the effectiveness of the SEPF and is one of the main criticisms

PS: lower environmental tax rates, backed up with SEPF projects are supported by interviewees in industry and government, but not unions

SS: there is further complication in the CZ as the social security contribution reductions will lag the environmental tax by 6 months

PS: in CZ there is also an equity issues, all consumers are forced to pay more for more expensive energy but not all parts of society are compensated, for instance pensioners.

SS: second part of WP4 compares ETR in Czech Republic, Estonia, Germany and the UK.

SS: there are some different starting points: for instance in Estonia pension contributions are paid by the employer.

-Estonia used ETR revenue to reduce income tax

- This was done because it was felt this could reduce wage bargaining pressures

SS: how sustainable is an ETR?

Tax revenues from transport fuel have dropped and could imagine that this could continue, we would therefore need higher tax rates to maintain the same level of revenue.

Sweden wants to exclude environmental taxes from EU ETS sectors and SS believes other countries will follow suit

- This could also lead to falling revenues

Also the EU wants to increase the aid intensity to energy efficiency and energy savings measures, which could lead that governments require additional revenues (from an ETR) to provide this financial support (see the draft of the revision of the environmental state aid guidelines).

Work package 5

SG: Gave WP5 presentation

SG: We need to check the links between the global material flows data at the disaggregated level with the more aggregate requirements of E3ME and GINFORS.

(Currently E3ME uses more aggregated Eurostat data which is suitable)

Action: SG and CL to discuss levels of materials data requirements for GINFORS

SG: The second part of WP5 is going well. The static GRAM (Global Resource Accounting Model) is in place and is producing preliminary results.

SG: The results are not yet robust and more work needs to be done to ensure this is the case. There are issues for example with using Argentina input output tables as a proxy for the rest of the world.

The discussion went back to data on raw material prices.

SG: SERI does not have the resources to complete the data set they have from HWWA which has missing data in parts (e.g. construction and industrial minerals).

PE: International resource prices, such as for steel, can vary widely based on differing sources and differing qualities.

SG: It is important to identify exactly what is required by the models and what is available in the datasets.

SG: Would it be possible to look at the resource use related instruments used by CE in the MATISSE work?

SG: We should also consider the reaction of the rest of the world in both WP5 and WP3.

PE: Trade effects will be mitigated if there is global cooperation, how would the models deal with this?

HP: In E3ME we would model increased world input prices.

PE: Would that assumption be robust?

BM: In GINFORS this can be done by introducing ETR to other world countries.

PE: It is important to consider that there will be both price effects and learning effects from international cooperation.

MJ: We could use border tax adjustments

PE: We have 3 options:

1. Do nothing on ROW
2. Treat it in the text
3. Try to model international cooperation in some way

SS: It is important to consider whether you will tax materials as inputs or outputs. It makes more sense to tax materials as inputs, whereas it makes more sense to tax energy outputs, eg electricity.

MJ: There are already policy instruments which cover materials such as integrated product policies.

PE: It is difficult to cover these in the models.

SG: (returned to presentation and the GRAM model) International trade is increasing and it is important to consider the notion of fair share between countries on consumption. There are I-O tables for each country: the model is linked and interactive. The model allows comparisons of extraction with consumption.

Why is the research important?

International trade reinforces the inequalities in material consumption. The GRAM model should provide interesting indicators on sustainable consumption. The model shows that EU dependency on imports is increasing.

PE: Need to make the distinction between consumption in monetary terms and consumption in terms of resource consumption.

H Daly flips between the two concepts as if they were the same, but in actual fact the interrelationships between the two are quite complex.

Trade economists would argue that the income from exports makes the agreement between countries mutually beneficial.

MJ: Do we need an explanation between rich and poor countries?

PE: There are both poor and rich exporters, it is important to make the distinction to see the patterns that emerge.

SG: This is possible through the GRAM model, through the bi-lateral trade data, the GRAM model also allows you to view the life-cycle of materials.

SS: Is it possible to do dynamic analysis?

CL: GRAM is only a static picture of the world economy; we could link with trade and material extraction data generated by the GINFORS model to get a dynamic picture.

SS: What about the coverage of Bulgaria and Romania?

HP: In E3ME we have not yet included Bulgaria or Romania.

RZ: The trade aspects of sustainable resource use need to be picked up. Resource productivity in Germany is increasing but not when looking at a life-cycle process.

SG: Next steps: we could;

1. Add more I-O tables
2. Introduce time series, but difficult with a single year I-O table
3. Analyse international production chains and structural paths
4. Extend GRAM to cover environmental categories

- a. Land use
- b. Water
- c. CO2

5. Future meetings/ events

a) Thursday 22 May 2008 :Prague, Partner Meeting and Dinner (start 12:00 midday – tbc)

b) Friday 23 May 2008 Prague, Partner Meeting (end 2pm)

Times of meeting were confirmed subject to the availability of flights.

c) Extra meetings? Teleconferences

Next teleconference fixed for Wed 12/03/08, 10am GMT

PSu

05.11.08