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IMFCOMM

COMMENTARY

Over-Presumption and Myopia

The IMF on Climate Change Issues

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A flawed product

As already foreshadowed, the latest (April 2008) issue of the International Monetary Fund's twice yearly *World Economic Outlook* includes a substantial chapter, of nearly 60 pages in all, on 'Climate Change and the Global Economy'. The main stated focus of the chapter is 'the macroeconomic and financial implications... of policies to address climate change' (p. 133), and under this heading it has useful things to say – in particular, about the choice of measures to limit 'greenhouse gas' emissions. In that context, its emphasis on carbon-pricing policies and their design is welcome. To this extent, as also in some other features, one can agree with the judgement passed on the chapter by the Fund's Executive Board (p. 227), that 'the analysis adds value to the debate on climate change'.

In some other aspects, however, the chapter has not come out well. Its handling of the issues is subject to three linked and mutually reinforcing weaknesses.

- It takes as its point of departure an inappropriate definition of 'climate change'.
- Partly for this reason, it gives a summary account of events, relationships and prospects which is unbalanced, because too unqualified.
- It accepts uncritically an established official advisory process which is open to serious criticism, in ways that Fund staff could and should have made themselves aware of.

Under all these headings, the treatment is over-presumptive, while in the latter case it represents an opportunity missed because it went unperceived.

A misuse of language

The chapter begins badly.

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² This article follows on from my earlier piece, entitled 'New Light or Fixed Presumptions?', which appeared in the last issue but one of this journal, and it draws on the text that I used for a seminar presentation at the IMF in early March. Thanks are due to the Fund for giving me a much-appreciated opportunity to make the presentation.

‘Climate change is a potentially catastrophic global externality and one of the world’s greatest collective action problems’ (p. 133)

Here and right through the text – and, inexcusably, without any explicit statement to that effect - the term ‘climate change’ is taken to refer *only* to changes arising from human activity, as though no other factors were involved and no alternative definition was possible. But other factors *are* involved: climate change can occur, has occurred, and may well be occurring now, independently of human activity. In recognition of this elementary fact, the Intergovernmental Panel on Climate Change (IPCC) defines the term ‘climate change’ more broadly. The Fund should have explicitly followed the Panel’s usage, and made a clear distinction at the outset between the phenomenon of climate change and the hypothesis (many would say, the fact) of anthropogenic global warming (AGW).

A propensity to overstatement

To write as though climate change today can be simply subsumed under AGW is going a long way too far. At some points in the chapter related though more specific forms of overstatement are to be found. Here are some instances with comments. In the interests of accuracy, I have replaced ‘climate change’ by ‘[AGW]’

- ‘[AGW] is a powerful global trend’ (p. 173). More cautious language would have been better, in the light of (1) the questions that still remain as to the actual extent of global warming, (2) the acknowledged uncertainty as to how far such warming as may have occurred can be attributed to human activity, and (3) the apparent stability of global temperatures over the past decade.
- ‘Stern *points out* that if GHG concentrations stabilize at 750 ppm by the end of the century, there would be at least a 50 per cent chance that global temperatures would increase by more than 5C, with potentially disastrous consequences for the planet...’ (p. 135, italics added). It would be more accurate to say: ‘Stern *takes the view* that...’
- ‘...the types of abrupt shocks (such as extreme weather events) that are likely to accompany [AGW]...’(p. 150). This oversimplifies a complex and much-debated set of relationships.
- ‘... the damage from [AGW] and its costs are irreversible’ (p. 141), or ‘to a considerable extent irreversible’ (p. 133). More guarded language would have served the interests of accuracy.
- ‘... the significant probability of climate catastrophes’ (p. 143) and ‘... the rising probability of catastrophic risk.’ (p. 155). It is misleading to imply that such probabilities are actually known, and known moreover to be increasing.

All the above quoted statements are too unqualified. They typify the widespread tendency, official and unofficial, to go beyond prevailing scientific opinion while purporting to reflect it, and to give an over-confident picture of what is known or established as probable.

A failure to take due note

In the IMF as within its member governments, it seems to be taken for granted that the large-scale established expert advisory process which governments have created in this area is objective and authoritative. Within that process, a central though far from

exclusive role has been played by the IPCC, through its series of massive Assessment Reports: the latest of these, known for short as AR4, appeared in the course of 2007. A widely held official view, set out in the Leaders' Declaration from last year's G8 Summit meeting, is that policies to curb emissions rest on 'the scientific *knowledge* as represented in the recent IPCC reports'.³

This uncritical view of the IPCC process has been challenged by a number of commentators, whose work goes unrecognised in this IMF chapter. In 2005 the House of Lords Select Committee on Economic Affairs, in a unanimous report, expressed 'concerns about the objectivity of the IPCC process'⁴, but the report is not included in the chapter's extensive list of references. Before and since the Select Committee report, critics of the Panel have drawn attention, in my opinion with good reason, to flaws which include:

- Weaknesses in the treatment of some economic issues.
- Over-reliance on peer review procedures which do not serve as a guarantee of quality and do not ensure due disclosure.
- Serious failures of disclosure in relation to studies which the IPCC has drawn on.
- Basic errors in the handling of data, allied to failure to consult or involve trained statisticians.
- Failure to ensure an adequate range of views and expertise.
- Failure to take due note of critics in the preparation of the Assessment Reports.
- Failure on the part of the Panel and the IPCC directing circle to recognise and deal with the above deficiencies.

These professional shortcomings have recently been documented, in relation to key chapters in the report of Working Group I which forms the first volume of AR4, in an article by David Holland in the journal *Energy and Environment*.⁵ The article forms one of a collection of articles on the IPCC, brought together in a special issue of the journal under the editorship of Benny Peiser. None of these articles is referred to here; and readers of *World Economics* may like to know that likewise unlisted are (1) the twin articles, with 14 co-authors between them, that made up a dual critique of the Stern Review in the journal in 2006, and (2) the two articles that I contributed on climate change issues last year.

In relation to this critique of the official process and its results, special mention should be made of the work of two Canadian authors, Stephen McIntyre and Ross McKittrick. Both separately and in joint writings, they have made an outstanding contribution to public debate.⁶ Neither name features in the chapter's list of references. One outcome of their work has been that twin inquiries into issues of disclosure were set up by committees of the US Congress: the reports from both appeared in mid-2006. It would

³ Italics added. Had I been a pre-Summit Sherpa, involved in the drafting of the Declaration and free to speak my mind, I would have argued for changing 'scientific knowledge' to 'the weight of scientific opinion'.

⁴ *The Economics of Climate Change: Volume I: Report*, p. 6.

⁵ David Holland, 'Bias and Concealment in the IPCC Process: The "Hockey-Stick" Affair and Its Implications', *Energy and Environment*, Vol 18, No 7 & 8, 2007.

⁶ McKittrick's website provides an annotated list of references, while McIntyre's blog, climateaudit.org, is a continuing source of analysis and commentary.

seem that neither of these revealing documents has attracted attention within the Fund.⁷

A specific lapse

In connection with the IPCC's treatment of economic aspects, one of the points at issue concerns cross-country comparisons of output (real GDP). Authors involved in the official process have made use of comparisons based on exchange rates rather than purchasing power parity (PPP) converters, despite the fact that this yields a distorted picture of the world economy and of the process of economic growth; and the IPCC has continued to make use of scenarios in which this mistaken procedure is followed. It is surprising to see that the same error occurs in the IMF chapter, where misleading comparisons of energy-intensities and emissions-intensities are made. Thus the text says of China (p. 167) that 'it is producing nine times more emissions per unit of output than Japan ... [and] five time more than the United States...' For evidence, the reader is referred to the chapter's Appendix, where however no GDP data are shown. Although the ratios just quoted are in fact hard to derive from the obvious sources, it is evident that in arriving at them the GDP of China was tacitly and wrongly compared with that of Japan and the US on the basis of exchange rate-based figures.⁸ This is slipshod work.⁹

A missed opportunity

Had the IMF chapter authors made themselves aware of the reasons for viewing the **established official** advisory process as flawed, they could have pursued their own inquiries into the subject: they could have tested the hypothesis. It is true that, generally speaking, Fund staff are not well equipped to follow or pass judgement on the scientific debate – as, indeed, is apparent from what has been said above. But they are competent to judge whether influential studies have made due disclosure of sources and procedures; whether the selection and treatment of data have been professionally up to par; how far valid criticisms under these headings have been fully taken into account by the responsible authors, reviewers and agencies; whether in relation to economic and statistical aspects the expert network is adequately representative; and how far the official advisory process as a whole, and the IPCC process within it, have ensured a balanced and informed treatment of arguments and evidence. Where so much is at stake, these things should not just be taken for granted.

⁷ References here are to (1) National Research Council (of the US National Academies) (2006), report on 'Surface Temperature Reconstructions for the Last 2,000 Years', Washington, D.C., The National Academies Press; and (2) the Wegman report at http://energycommerce.house.gov/108/home/07142006_Wegman_Report.pdf.

⁸ Angus Maddison's estimates for 2003 show the emissions intensity of GDP in China as slightly *below* that of the US: the figures are shown in Table 7.14 on page 350 of his *Contours of the World Economy, 1-2030 AD* (Oxford University Press, 2007). This low figure reflects his own estimate of PPP-based Chinese GDP, which is much higher than that now used by the IMF following the latest results from the International Comparison Program (ICP). The difference between these two estimates is commented on in Maddison's article in this current issue (pp.). Taking the ICP figures for 2005 for GDP, and emissions data from the US Energy Information Administration, the ratio of Chinese to US emissions intensity for that year comes out at 2.08.

⁹ I reviewed the use and rationale of PPP converters, as also the outcome of exchanges that had taken place between IPCC authors and Ian Castles and me, in 'SRES, IPCC and the Treatment of Economic Issues: What Has Emerged?' (*Energy and Environment*, Vol 16 No 3&4, 2005). This piece also has escaped IMF notice.

Conclusions

In respect of the matters raised here, this latest IMF publication marks no advance. To the contrary, it mirrors, and serves to confirm and reinforce, the over-presumptive and unresourceful treatment of climate change issues by the Fund's member governments and in particular by its clients in national capitals, that is, the central economic departments of state – treasuries, ministries of finance and economics, and, in the US, the Council of Economic Advisers..

In relation to climate change issues, a new framework is needed - less presumptive, more inclusive, more watertight professionally, and more attuned to the huge uncertainties that remain. My fast-fading hope has been that the Fund, as also the OECD where the economic departments have likewise recently become more involved with the subject, would be able to contribute to establishing such a framework.

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