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Scientific Evaluation of

Economic Evaluation of Climate Change Impacts – Development of a Cross-Sectoral framework and results for Austria, Springer 2015

The COIN study, led by Professor Karl Steining, is a landmark, setting a new standard of sophistication and excellence for the economic assessment of the impacts of climate change. Compared to other such studies, including the US National Climate Assessment and the EU PESETA Project, the COIN study stands out for the comprehensiveness of its coverage of potential impacts across different sectors of the economy. Beyond that, it innovates in three important ways. First, it clearly delineates the *current* vulnerability to climate (the current “stock” of climate and weather induced damages) before going on to identify the additional impacts expected to occur with future warming. This is an important innovation. It serves to root the projection of possible future impacts in what is happening right now, as today’s economy experiences impacts from the already existing warming that has become evident over the past four or five decades. Second, it makes a serious effort to consider the “fat tail” of climate impacts, the increased risk of extreme weather events. Such events have been ignored in existing studies such as US National Assessment and the EU PESETA project because those studies focus exclusively on impacts associated with the change in average annual temperature and precipitation, changes which will be relatively small during the coming decades compared to what will be experience at the end of the century and in the next century. The changes in these averages do not tell the full story of what will happen. The vast majority of the economic consequences of climate change in coming decades will be associated with the increased incidence of events that are still low probability but will be occurring with somewhat increased probability (e.g., local droughts). The increased risk of such tail events is central to the debate on climate policy when this is viewed – as it should be – as an exercise in risk management. The COIN study was the first national assessment to adopt such a risk management perspective. Third, unlike the recent US national climate assessment, the COIN study characterizes the effects of climate change not just in physical, biological and social terms but also in terms of economic endpoints. Economics is fully integrated with the other scientific analyses. In short, the COIN study is a model for how a national assessment needs to be conducted. This is a tribute to Professor Steining’s vision and leadership in coordinating and directing the COIN study.

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