



DG ECFIN-OGWG workshop on natural capital measurement and modelling

Brussels, 30 November and 1 December 2023

This workshop will explore the measurement of natural capital (i.e. finite and renewable resources and ecosystem services) and the modelling of its contribution to economic activity. The degradation of nature through overuse and pollution (including the emission of greenhouse gases) is set to limit economic possibilities over the medium to long term. Long-run projections of potential output that do not take this into account will therefore be biased. During the workshop, we want to explore the possibilities for developing a measure of sustainable potential output that could underpin forward-looking macroeconomic surveillance and economic policy advice.

Programme

30 November 2023

Opening address G. Mahieu (DG ECFIN) 13:00h

Session 1: Concepts and measurement 13:15-14:45h

Introduction of the concept of natural capital and ways of measuring natural capital as well as its contribution to the economy.

- Chair: A. Dimitrijevic (DG CLIMA)
- **Conceptual framework**
B. Döhring and A. Thum-Thysen (DG ECFIN)
- **Environmental economic accounts and their integration with National Accounts**
A. de la Fuente (Eurostat)
- **Measurement of ecosystem services**
M. Tamborra (Joint Research Centre) and A. La Notte (external expert at JRC)
- Discussant J.-E. Petersen (European Environmental Agency), then Q&A

Coffee break

Session 2: Applied natural capital measures 15:10 -16:40h

This session will explore practical efforts to measure natural capital and integrate it with macroeconomic data.

- Chair: T. Vandyck (OECD)
- **Green Net Domestic Product**
E. Barbier (Colorado State, [online](#))
- **Natural wealth (the stock of natural capital)**
S. Onder (World Bank)
- Discussant C. Zuber (SVR), then Q&A

Keynote address F. Moore (UC Davis, [online](#)) 16:45-17:15h

Speakers' Dinner

1 December 2023

Session 3a: Integrating natural capital into macroeconomic models 09:15-10:45h

How may the depletion (and restoration) of natural capital affect medium-term potential output?

- Chair: A. Thum-Thysen (DG ECFIN)
- **How climate change affects potential output and Economic activity's reliance on nature**
M. Parker and A. Ceglar (ECB)
- **Estimating a production function with natural capital**
M. Kornafel (U Krakow)
- Discussant: A. Rossi (JRC), then Q&A

Coffee break

Session 3b: Integrating natural capital into macroeconomic models 11:00-12:30h

How may the depletion (and restoration) of natural capital affect medium-term potential output?

- Chair: A. Johannesson Lindén (DG ECFIN)
- **Environmentally adjusted TFP**
M. Cárdenas Rodríguez (OECD)
- **Integrated Assessment Model with natural capital depletion**
J. Johnson (U Minnesota)
- Discussant O. Croitorov (DG ECFIN), then Q&A

Closing remarks O. Ricchi (OGWG chair)

12:30-13:00h

Workshop venue: Salle Durieux, Charlemagne building, Rue de la Loi 170, 1000 Brussels

Please foresee sufficient time for security checks at the entrance.

Speakers' Dinner (by invitation only): Hotel NH Berlaymont, Boulevard Charlemagne 19, 1000 Brussels

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