

### A summary

The conference organised by the CNIS on 10 May 2023, entitled "Measuring the ecological transition: economic perspectives", was attended by 180 people at the Ministry of Finance in Paris-Bercy and was followed live on video by more than 200 people. In the face of the ecological emergency, the aim of the day was to take stock of the statistical work in progress, the expectations of users and other stakeholders, and to discuss future prospects. After an introductory speech by a 'great witness', Pierre Veltz, three thematic sessions followed, led by Official Statistics managers (Nicolas Carnot, Sylvain Moreau, Béatrice Sédillot), and a final round table, led by Xavier Timbeau, Chairman of the CNIS Environment and Sustainable Development Commission, discussed cross-cutting issues in a forward-looking approach, before the conclusions of Jean-Luc Tavernier, Director General of INSEE (French NSI). The presentations brought together producers from the official statistical system, high-level experts, users or stakeholders (public, voluntary, private, researchers, etc.) and discussions took place with the participants. The full video and slide presentations from the conference are available online on the CNIS website.

The explosion of data, both public and private, and sometimes participatory (collected from the public), raises questions about the trade-off between rigour and speed, as Pierre Veltz pointed out, for whom we have never been so close to a panoptic vision of the social world. In the world of the past, it was possible to create an average, whereas today it is possible to zoom in and zoom out, while the overall picture becomes increasingly blurred! In his view, the traditional metrics of the industrial world (weight, volume, price) are increasingly out of step with our hyper-industrial society. Companies themselves have a very poor grasp of what drives performance. Added to this are international interdependencies (the example of Irish GDP with the relocation of intangible assets held by multinationals, article published in *Economie et Statistique*). We need to get back to describing reality and taking physical measurements, as illustrated by two examples: building insulation (where there is a lack of serious analysis of the impact this actually has on household consumption, while the rebound effects are only just beginning to be taken into account) and the green factory (products need to be transformed at the same time, and reasoning needs to be applied to the entire value chain, which is itself responsible for 5 to 15% of greenhouse gases). It is up to official statistics to once again become a research issue (to provide an ever-better description of reality), to educate the general public about the scale of the transformations underway, and to build a better linkage, or even hybridisation, between physical and socio-economic data.

The first session (Macroeconomic indicators for the climate transition) raised the question of the link between economic activity and the climate transition and their statistical measurement. To this end, more detailed measurement of GHG emissions and the carbon footprint of agents is a priority, as are the possibilities of cross-referencing with economic data. The issues raised since the Stiglitz-Sen-Fitoussi report (2009) were reiterated, particularly in terms of measuring well-being (or monitoring current living standards) and, in the longer term, the sustainability of our trajectory (preserving the well-being of future generations). One answer would be to calculate a net domestic product adjusted for climate costs and the delay in the decarbonisation trajectory. Valuing damage, which is tricky in practice, is important for assessing the direct costs of climate change. The impact of the transition on price measurement was also raised, as was the fair distribution of its cost, taking into account the various dimensions of household heterogeneity in particular. The difficulty of analysing inequalities on the basis of indicators that are simply juxtaposed was emphasised.

Session 2 (Adaptation of production and financial systems) highlighted the difficulty of microeconomic measurement of the carbon footprint and the need to go beyond simply imputing average values in order to provide an incentive for a company to make an effort. Asking companies (and also public authorities and associations) to publish standardised information is a good way forward, towards greater integration of economic and financial information and environmental data. They will be all the more encouraged to do so if they derive useful information for themselves. For example, having an overview of the direct emissions emitted by the heating of buildings in different regions (départements, communes, etc.) is necessary in order

to estimate the cost of renovating housing, data that is not available locally. The challenge is to be able to estimate the investment required at this scale to achieve the desired impact and monitor the trajectory over time.

While the quality of the basic data obtained from the various producers (academic laboratories, think tanks, NGOs, operators, etc.) is necessarily limited, it is important to disseminate it widely for all kinds of uses, sometimes at a very detailed level of product nomenclature or geographical areas, and official statistics must contribute to this. There is a great need for data that is better integrated at international level, with sufficient frequency, and sometimes for new data to estimate investments and financing methods at a more disaggregated level. There are benefits to be gained from increased climate reporting by companies and financial investors: a number of studies conducted in the United Kingdom and the United States show that mandatory climate reporting goes hand in hand with a reduction in GHG emissions by the companies concerned. The discussion highlighted the delicate issue of monitoring the conversion of jobs, which will necessarily accompany the transition and affect virtually all sectors. However, the concept of green jobs is evolving and is not very operational today.

Session 3, devoted to the "environmental practices of households", examined this subject as well as the redistributive issues involved in transition policies. Public perceptions are regularly measured in barometers, such as the feeling of exposure to risk or pollution, the impact of selective sorting, and the willingness to use the car less on a daily basis. Better education of the public on environmental issues would help to guide their choices and influence behaviour over the long term. To inform public decisions and assess their impact, new indicators such as CO2 emissions are needed, sometimes on a very local scale, distinguishing between households according to their type of housing, their size, their mode of transport and the means of public transport available around them, their standard of living, their type of activity or their state of health... because there is a great deal of dispersion, even within income deciles. So, for example, official statistics are using new data (from individual energy meters) to estimate the gains in energy and GHG emissions from a policy of renovating the worst insulated homes. Public policy must take account of this great heterogeneity and carefully calibrate the redistributive effects of its actions to ensure that the measures taken are acceptable to the population. This is more difficult when the efforts required are substantial, the gains to be expected are distant and certain situations offer little or no choice in the short term.

The round table (Ecological transition: a challenge for innovation in official statistics) highlighted the fact that while the movement has been launched, and official statistics are expected to do what is part of their remit and what they are already doing in many other areas, the need for data is immense and will require a growing deployment of innovations to provide the expected insights (faster, finer, more spatialised, more explanatory, on flows but also on stocks, by linking the physical and the monetary, etc.): the use of private data will enhance knowledge of the transition, and the quality of management data will remain a concern for statistics. Other types of innovation could accompany the movement, such as that of providing an accounting framework for carbon emissions, proposed by the *Carbones sur factures* collective, which is betting that this type of information (for each product, on each invoice, alongside the price) will enable people to take action and will be a powerful lever for guiding their choices towards a greener economy.

In his concluding remarks, Jean-Luc Tavernier underlined the quality of the conference and listed a series of challenges posed by the ecological transition to official statistics, emphasising that measures of climate change are now better defined, using the carbon metric, than those of biodiversity, for example, or environmental pollution, which are more difficult to grasp. He indicated that the movement is underway and is already mobilising several official statistics departments, the full range of tools, all types of sources, and partnerships with research and operators, the aim being to meet the growing demand to shed light on public policies and their differentiated effects.

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