

## Guest-Editorial

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# Nowcasting: Data delayed is data denied<sup>1</sup>

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There is an increased pressure for national and international statistical offices to provide more up-to-date information for monitoring sustainable development and providing timely evidence for policy makers. Technological innovations, new data sources and the emergence of big data are delivering additional opportunities to follow economic and social developments with reduced time lags, in some cases even in real-time. Different statistical offices have responded by releasing flash estimates, forecasts or nowcasts. Nowcasts can be defined as real-time evaluations of variables based on a series of relevant, timely and higher-frequency indicators.

While nowcasting has generally been well received, many questions regarding the robustness of the methodologies employed remain, as do concerns over the validity of using a wide variety of data sources (including both hard and soft indicators). Anxieties have also been flagged concerning the impact of revisions in the underlying data, dissemination strategies, potential confusion for users, and relevance to some areas of sustainable development.

Across the UN, different entities have explored this area of work separately, resulting in a lack of harmonization and a missed opportunity to share experiences. Furthermore, the *Data4Now* <https://www.data4sdgs.org/news/data-now-accelerating-sdg-progress-through->

[timely-data-initiative-and-the-System-wide-Road-Map-for-Innovating-United-Nations-Data-and-Statistics,](https://www.data4sdgs.org/news/data-now-accelerating-sdg-progress-through-timely-data-initiative-and-the-System-wide-Road-Map-for-Innovating-United-Nations-Data-and-Statistics/)<sup>2</sup> have both identified the demand for more timely data to support sustainable development as a pressing issue. Consequently, the Committee of the Chief Statisticians of the United Nations System (CCS-UN) organized a technical workshop on Nowcasting, to discuss current practices, identify gaps where additional methodological work is needed, share successful communication strategies and identify opportunities for collaboration.

The workshop, jointly hosted by UNCTAD and UNIDO, was held in Geneva from 3–4 February, 2020. The workshop comprised mainly of methodologists and practitioners from UN entities and other international organizations, and academia involved in nowcasting. The workshop discussed concepts, definitions and new approaches (including AI techniques). Given the availability of timely data in many sectors of economic activity and the forecasting tradition in this domain, the workshop began by examining case studies from this field. However, case studies from the more challenging social, humanitarian and environmental fields, where availability of relevant indicators is more limited, were also explored and discussed.

Over the course of two intensive days, 18 case studies were discussed.<sup>3</sup> Those discussions highlighted a number of issues and challenges, including the inconsistent

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<sup>1</sup>A World That Counts: mobilizing the data revolution for sustainable development (p.22). <https://www.undatarevolution.org/wp-content/uploads/2014/11/A-World-That-Counts.pdf>.

<sup>2</sup>System-wide Road Map for Innovating United Nations Data and Statistics. CEB/2020/1/Add.1 CEB/2020/1/Add.1. <https://unstats.un.org/unsd/unsystem/documents/Roadmap-Innovating%20UN%20Data%20and%20Statistic.pdf>.

<sup>3</sup>You can find all of the presentations, speaker biographies and

use or terminology and how best to communicate or present nowcasted indicators so that users can clearly understand which data are ‘nowcasts’ and which are not. In the context of the SDGs there were also very interesting but inconclusive discussions regarding ownership and status of nowcasted estimates. There was consensus that these issues should be discussed further with member states at the UN Statistical Commission. It was also agreed to establish an informal ‘nowcasting network’ to discuss, in particular, how best to nowcast/forecast indicators for the purposes of SDG reporting but to discuss methodological issues more generally. This group, chaired by Mr. Fernando Cantu, Chief Statistician at UNIDO, began meeting in late 2020. Anyone interested in joining the group should contact Mr. Cantu at: [f.cantu@unido.org](mailto:f.cantu@unido.org).

One issue that was not discussed in any detail, unfortunately, was how to deal with shocks. But less than 6 weeks after the workshop, as the gravity of the COVID-19 situation became clear, this became a very pressing issue. The pandemic highlighted the importance of nowcasting as the need for timely statistical information became paramount while simultaneously interrupting the supply of data and the normal seasonal and other patterns that make nowcasting possible. Certainly, in the case of UNCTAD, the wheels quickly came off our nowcasting models; they required extensive redesign to make them pandemic proof.

The ‘Nowcasting’ section of this edition, presents some of the papers presented at the CCS-UN workshop. The Cantu-Bazaldúa paper (*Nowcasting global trade in goods and services*) employs dynamic factor modelling to harvest an array of official and unofficial data to nowcast both merchandise and services trade statistics. While this methodological approach proved quite robust during the chaos of 2020, the actual specificities of the model had to be adapted quite a bit. An

important feature of this approach is that it is purely statistical and does not rely on economic assumptions. The Esteban et al. paper (*On Model-based Nowcasting for Highly Disaggregated Levels*) is a very innovative approach in that it repurposes traditional or existing small area estimation prediction techniques, to which most NSOs have some familiarity, to temporal prediction without surrendering disaggregation – which immediately makes this approach of interest from a SDG perspective. The Hughes et al. paper (*Estimating current values of sustainable development goal indicators using an integrated assessment modeling platform: “Nowcasting” with International Futures*) takes a very different approach, combining statistical and accounting techniques to develop a long-term multi-issue model, based on a dynamic social accounting matrix. The attraction of this approach is the possibility of coherent results across a wide range of areas, including social domains. The RuggeriCannata paper (*The Eurostat Business Cycle Clock: a complete overview of the tool*) grapples with how to provide clear and timely macroeconomic signals from the vast, and often confusing, array of data available so that the ‘state of the economy’ can be assessed. By computing coincident indicators for business, growth and acceleration, reliable probabilistic signals are generated to help understand the current economic situation. This selection of papers gives some flavour of the richness of the possibilities open to those who wish to explore nowcasting.

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