Using high-frequency data for nowcasting the labour market impact of Covid-19

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March 2020: global labour market in major disruption

ILO Monitor on the world of work

Tracking disruption at the global, regional level
105 days 5 editions published (Mar – Jun 2020)

Labour statistics are scarce

40% of countries in a given year have no data (no LFS)
Global indicators are never observed
What to do?

Data environment

Target variable

Hours worked.

Explanatory variables: “One-off” high frequency data

Google Mobility Reports, Oxford Stringency Index

Widely available

130 without quarterly data

60 with some lag

Explanatory variables: “Long” HF data

High frequency economic indicators: retail sales, consumer confidence, (approx. 4’000 series – raw database).

Narrowly available
What did we do...

... for the “60 countries”?

Classic nowcast, but scale, speed, uneven HF coverage

Lessons learned:

Model search: include country specific models and common (panel) models

Go beyond error-based selection: stability, likelihood of responding well to COVID-19 shock

... for the “130 countries”?

Indirect nowcast:

How?

Cross-sectional extrapolation based on mobility and stringency

Simple set-up (very limited data)
Over-simplified, back in March 2020:

Classic nowcast vs. Indirect nowcast
Pseudo out of sample performance (RMSE/Prediction):

Approximate range of 1.3% - 3.5% depending on the quarter, for global* aggregate.
Timeliness increases relevance

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23 May 2022

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