Covid-19 and official statistics: a wake-up call?

C. Biancotti[1] R. Kirchner[2] F. Mouriaux[3] A. Rosolia[1]
G. Veronese[1]

[1]Banca d'Italia

[2]Deutsche Bundesbank

[3]Banque de France

IMF Statistical Forum
17 Nov 2020

BANCA D'ITALIA EUROSISTEMA BANQUE DE FRANCE EUROSYSTÈME DEUTSCHE BUNDESBANK EUROSYSTEM

Key messages

Covid-19 pandemic:

- tested the official statistics production-chain
- boosted demand for broader and more timely statistics
- met also thanks to "alternative" data sources

a challenge to the salience of official statistics for society, in times of radical change...

so to face the next global crisis:

- build a new data access and sharing framework to lever effectively on public and private data
- promote international and interdisciplinary cooperation in statistical production

Covid triggers heightened demand for statistics at large

- in the pandemic micro and macro outcomes intertwined with health ones
- marked increase in uncertainty
- unprecedented demand for information on:
  - *timely* and ...
  - *broad* and *genuine* picture of developments on the ground

$\rightarrow$ pandemic not only outpaces conventional statistics,

but it also reveals large information gaps

Proliferation of alternative, unconventional data

Previously less known statistics come to the fore, tapped from several sources:

- digital platforms
- mobile network or payment operators
- sea/air/land traffic operators
- utility companies
- private data-brokers

Their *salience* for decision makers at large is boosted,

with daily media coverage amplifying their visibility

$\rightarrow$ a cacophony of signals on the state of the economy

Central banks are intensive data users

In the performance of their monetary policy and financial stability tasks

CB routinely analyze information on several fronts:

- wage and price developments
- real sector
- financial sector

$\rightarrow$ Covid-19 added a new front: health related statistics

e.g. forecast scenarios are conditioned on paths for epidemiological outcomes, which hinge on reliable and timely health statistics

Supply disruptions also in the EU

Disruptions in data flow tested the resiliency of statistical value chains,

- beyond NSOs, which faced difficulties to collect info from reporting agents
  - consumer price indices
  - business and household surveys
  - ...
- also Central Banks, had to cope to ensure delivery of
  - balance of payments statistics
  - household and business surveys
  - less so for banking, monetary and financial statistics (reporting obligations helped)

Lessons from the crisis

Facing unprecedented crisis, public and private decision makers realize they need more information:

- not only more timely
- but also new data domains
  (epidemiological, social distancing, mobility)

Odd, considering massive data produced in digital world

- in the public perimeter and
- but more so in the private perimeter

  on firms, humans, machines, ... the natural system

Public perimeter: benefits still to be fully reaped

Why?

1. legal barriers: statutory or privacy requirements
2. limited and rigid exchanges (e.g. between administrations and the NSOs/CBs)
3. data not immediately serviceable for statistical production
4. broader interest of data at hand not well understood: poor management of the data reinforces limited re-usability
5. administrative capacity and IT diffusion

This is not a new problem ...it just became concrete in the crisis (e.g. hospitals ICU capacity, patients age profile, etc.)

Private data: benefits from access can be substantial

Official statistics can gain salience by levering on the many dimensions of information collected in the private perimeter:

- increase scope and breadth of their insights
- increase timeliness and relevance
- lower administrative burden of official surveys
- and greatest societal value can be derived from reusing and combining otherwise separate datasets

but, lack of clarity on data ownership remains a major hurdle

Examples from access to private sector data

implemented before and in response to Covid by statistics producers in the EU:

- Eurostat agreement with Airbnb, Booking, Expedia and Tripadvisor: to access data on short-term accommodations
- Bundesbank analyses packaged tours prices using IT private provider
- Banque de France gauges household consumption and business output using electricity consumption and credit card data
- Banca d'Italia tapped mobile operators data for BoP items on travel expenditures

But access is still minimal compared to the actual troves

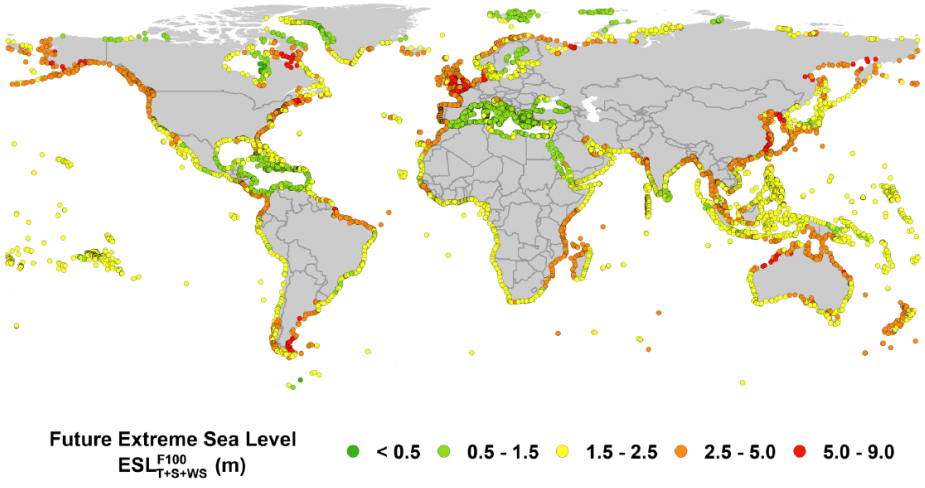
Legal initiatives fostering more data sharing can help, international, regional and national ones:

- Can bring in the public interest of statistical offices and central bank statistics to bear
- Improve B2G and G2G *data relations*
- Sustainable partnerships for coordinated flows of high quality data to inform the policy-making
- The EU strategy on data provides a first-mover example
  - to enhance trust in the pooling and lower transaction costs linked to the data sharing
  - EU statistical producers: can contribute to the organization new data ecosystems, where pooled data are used for *public interest*
  - to enhance users access to these ecosystems

just like with the global financial crisis, we will hopefully be ready with statistical production to face next pandemic ...

but the next serious testing ground may not be a pandemic

Take one: climate change and extreme sea-level events



Source: Kirezci et al. (Nature Scientific Reports, 2020)

To assess implications and design policy response,
many data domains needed: oceanographic, demographic and economic info on areas affected, linkages to areas indirectly impacted...
How to tap sources and combine all these datasets?
Who holds them? What about a second wave?

International and Interdisciplinary frameworks

The pandemic has already stimulated notable examples of international cooperation in data sharing

- Our World in Data by University of Oxford: essential for Covid-19 international statistics, from deaths, to cases, testing,...
- Oxford Covid-19 Government Response Tracker: global indicators on government response across 180 countries responses
- Development Data Partnership: consortium founded by the World Bank, IMF and IADB

New gaps, new initiatives?

Data Gaps Initiatives have been successful to fill data gaps after the GFC, showing that international cooperation frameworks can be useful:

- to address emerging data needs
- enrich set of timely information
- strengthen the adoption of statistical data standard
- overcome hurdles to data sharing
- while safeguarding data privacy

A *global perspective* is often more effective than national/regional approaches

Rising to the challenges of the digital age

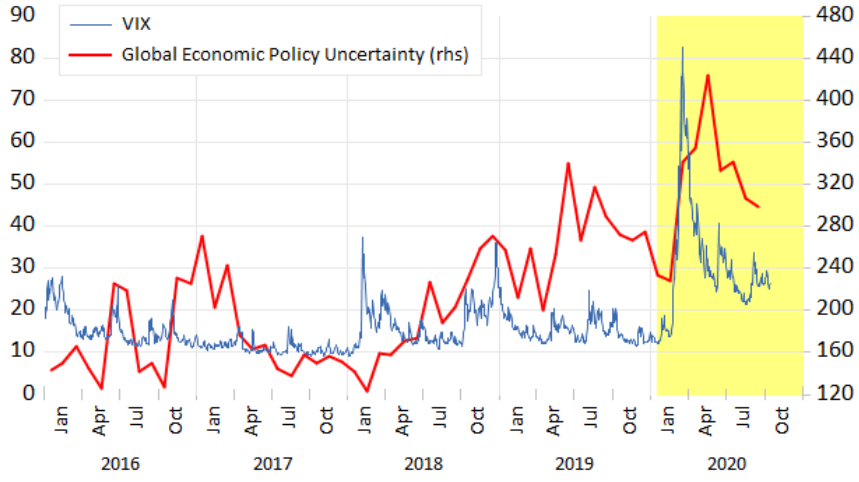
Official statistics need to evolve along the whole value chain:

- benefiting of new data in the collection phase
- strengthening cooperation with private and government sector
- improving standardized data publication and international data sharing in distribution phase
- at the final stage of the chain, upgrading dissemination techniques to broaden outreach of official statistics, to make them more accessible and more easily understood by the public

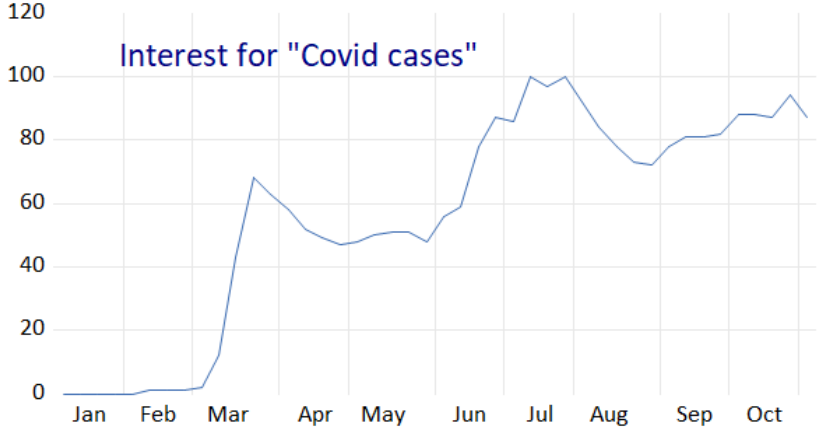
Good official statistics can act as first line of defense against misinformation in the digital age

THE END: THANKS!

The uncertainty spikes following Covid-19



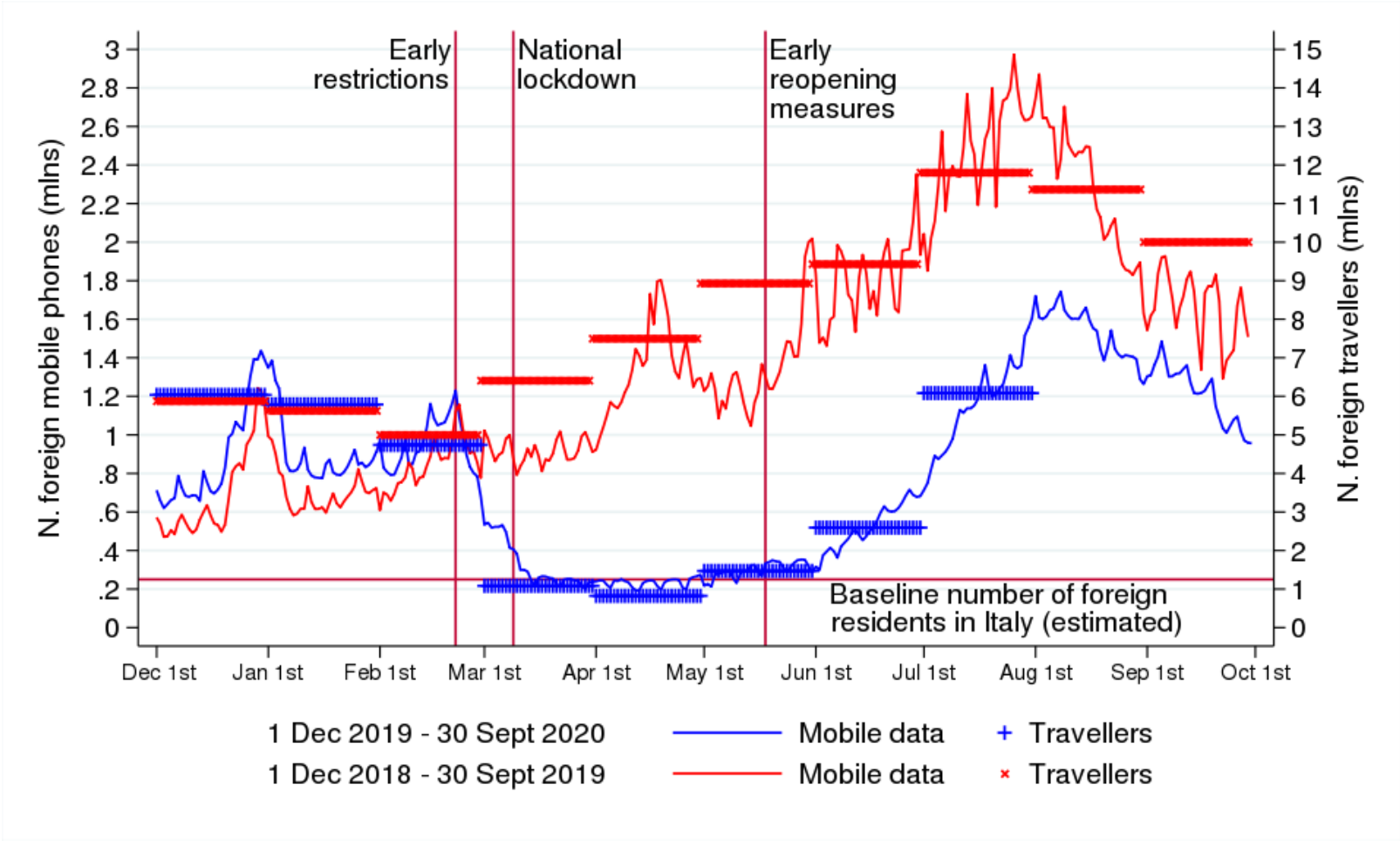
as global searches for "Covid-19 cases" surge



Data source: Google Trends (https://www.google.com/trends)

Bridging with private data: tourism flows in the Italian BoP

Foreign travellers in Italy from mobile network operators



return