

## Friends of the Chair Group on Economic Statistics, 28-30 May 2019

### Contribution by Statistics Denmark to the session on “Towards an infrastructure to develop and maintain a responsive and relevant system of economic statistics”

- 1) These are impressions from Statistics Denmark and as such not necessarily representative of views in other NSOs or even NSOs in comparable countries. They focus on what are seen as the most pressing concerns for economic statistics in the Danish case. In consequence, they do not necessarily respect the mandate of discussing the infrastructure to develop and maintain a responsive and relevant system of economic statistics.
- 2) Denmark being a small, open economy with many enterprises increasingly operating at a global scale, the main immediate challenges to economic statistics relate to the effects of globalisation rather than integration across the social and environmental field. The challenges relate both to appropriate definitions and to communication on statistics.
- 3) A main challenge associated with globalisation is the divergence between a territorial principle and an economic ownership principle in national accounts and other economic statistics. Users tend to interpret national accounts statistics (and particularly GDP) through a territorial lens (in conformity with most economic textbooks) whereas the statistics are in fact based on the principle of economic ownership. On the latter basis, a substantial and rapidly rising part of Danish economic activity takes place outside Danish territory through processing abroad and merchanting. Similar examples of foreign activity taking place inside Danish territory appear to be relatively small.
- 4) Processing abroad mainly affects manufacturing, with the share of manufacturing value added accounted for by such processing having risen from close to nil in the mid-2000s to more than 15 per cent in 2017. Merchanting activities are a different way of organizing operations abroad. The contribution of merchanting to earnings by the largest Danish manufacturing enterprises has also increased rapidly and corresponded to about  $\frac{3}{4}$  of the earnings generated by processing abroad in 2016. The more traditional way of organizing foreign operations as subsidiaries, which generate income that contributes to GNI but not GDP, contributes an amount to earnings which is equal to that of processing abroad.
- 5) Enterprises reorganize the structure of their foreign operations, alternating between the different models described above, in response to market, regulatory and tax considerations. Such changes will affect economic statistics.
- 6) As an illustrative example of the importance of these international activities, the share of Danish goods exports to the US that do not cross the Danish border has risen to more than 40 per cent.
- 7) It is not straightforward to calculate the effects of merchanting and processing abroad on GDP growth but a highly ad hoc calculation suggests that the impact of these activities on GDP growth could have been on the order of 0.3 %-point on average since the mid-2000s.
- 8) The effects on activity measures of globalisation in manufacturing carry over to productivity and functional income distribution. Labour market organisations have complained that it has become increasingly difficult to base wage bargaining on official productivity numbers. Hourly productivity in manufacturing would have grown by about 1 %-point less since the mid-2000s if processing abroad were excluded. One – contested - interpretation of the official numbers is that staff in headquarters and research departments, that provide an important part of the backdrop to processing abroad, saw

tremendous productivity increases, allowing overall productivity growth to be a percentage point faster. Likewise, excluding processing abroad from measures of functional income distribution for manufacturing suggests broad stability over the past 25 years whereas the profit share has increased noticeably since the mid-2000s when processing abroad is included.

- 9) Denmark having a large merchant shipping fleet, the new and rapidly expanding activities abroad by manufacturing enterprises come on top of a longstanding contribution of about 1½ % to overall value added from this component.
- 10) Taken together, the effects of globalisation are often ill-understood by users. There is a non-negligible risk that, in consequence, national accounts and other economic statistics might lose relevance and credibility. This risk has been augmented by a case where trade in an intellectual asset led to GDP development in 2017 that were considerably more buoyant than ordinary activity developments in Danish territory (though the effects were orders of magnitude lower than in the so-called “Irish case”).
- 11) The challenges set out above call for both clear communication of what the statistics show but also possibly for emphasising other aggregates than GDP or even producing supplementary indicators. Faced with somewhat different challenges, Ireland has chosen to develop a GNI\* indicator. However, it is in principle desirable that internationally agreed approaches are found. This again points to the need for international statistical processes that allow an agile response to such challenges.
- 12) Recognising that the above may not correspond to the mandate, a few remarks follow on the integration of statistics across the economic, social and environmental fields.
- 13) Denmark is fairly well endowed with “hard” social statistics, based to a large extent on administrative registers with a considerable history. The widespread use of national identifiers for both citizens and enterprises allow substantial data integration across types of social indicators and, to some extent, between social and economic indicators. For example, indicators such as poverty can be linked to educational status, parental background, labour market history, place of dwelling, etc. Such integration is a feature of regular statistics production but perhaps more importantly of infrequent publications and analyses, undertaken by Statistics Denmark and by outside analysts and researchers accessing microdata through the research service of Statistics Denmark. These statistics and analyses illustrate the benefits that can flow from a statistical system to a large extent based on administrative registers and the widespread use of unique identifiers.
- 14) For financial reasons, subjective measures of various aspects of wellbeing are not regularly produced but, when they are, data are collected in a way so as to allow data integration.
- 15) There is no constituency for harmonization of micro and macro data on income, consumption and wealth. Indeed, with microdata in these areas generally seen as well understood, comprehensive and accurate, tampering with the data to match macro indicators would seem hard to justify. What could be useful, though, is to undertake reconciliation between the different sources of statistics at regular intervals.
- 16) With the production of Danish environmental accounts resumed following a temporary lapse of funding, there is also considerable scope for integration between economic and environmental indicators though, in practice and perhaps because of its more recent availability, it has been used much less both inside and outside Statistics Denmark than is the case for social and economic statistics.

- 17) The environmental accounts are presently the basis for a research project undertaken with University of Copenhagen to calculate a Green GDP. As well, based on the environmental accounts a main macroeconomic model of the Ministry of Finance is being augmented so as to be able to quantify environmental impacts of economic policies. The assumptions required to undertake such work suggest that these kinds of activities are appropriately allocated outside Statistics Denmark – or at least differentiated from ordinary statistical production. The same would be the case for any production of estimates of natural or environmental capital which currently does not take place.
- 18) An area where the environmental accounts clash with policy use is CO2 emissions. The international climate architecture operates on a territorial principle. Hence, emissions from Danish shipping – at a level close to the emissions from Danish territory – are included in the environmental accounts but not in various international inventories of countries' CO2 emissions which generates confusion in a policy context.