

Eighth European Central Bank Statistics Conference

Central Bank Statistics: moving beyond the aggregates

Session 2: The benefits of micro data for macroprudential policymaking

The second session of the Eighth ECB Statistics Conference started with some introductory words from the chair of the session, **ECB Vice-President Vítor Constâncio**. With his opening remarks, he underlined the fact that micro data are just as relevant for macroprudential policy as for monetary policy, and perhaps even more so. Mr Constâncio provided a few examples of how the ECB is currently trying to assert a macroprudential perspective on stress tests instead of the regular solvency-capital perspective. The first example was the numerous surveys on consumption that are being used to create a module to analyse the reaction of households to policies and to assess the levels of household indebtedness and credit risk. Also, available information on cross exposures between banks has been used to generate a module for network effects to better identify interdependencies and feedback to the macro economy. As a final example of micro data's usefulness for macro perspectives, Mr Constâncio mentioned the existence of granular credit registries in some countries that provide data necessary for calculating probabilities of default across different types of loans and different sectors.

Klaas Knot (De Nederlandsche Bank) presented two main benefits of using micro data. First, he mentioned that micro data allow for the disaggregation of indicators, which in turn leads to a much more precise calibration, often revealing a different picture to that painted by aggregated values. The second advantage he noted is the applicability of micro data to stress testing. Unlike the usual historical regression testing, granular data allow for higher malleability when creating a simulation and defining the exact topic of interest of the test. However, he also stressed the difficulties we face when trying to implement granular data within the traditional statistical approach: (i) changing people's mindsets considering the almost canonical use of aggregated data; (ii) comparability issues across countries and institutions due to lack of harmonisation; (iii) increased costs in processing data, when considering both human and hardware resources; and (iv) the increased responsibility in terms of not breaching confidentiality.

The second presenter, **Mr Pascual O'Dogherty (Banco de México)**, began by introducing the audience to the flaws of the information model used by Banco de México up until the 1994-95 crisis and the steps taken to remedy these flaws. As a product of the reforms, Mr O'Dogherty considered the timely identification of the 2007 credit card sector risk values, when micro data showed a large ratio of defaults by new credit card users and owners of several cards, which implied lowered standards in bank lending – a trend that could not be seen in the aggregated data. In addition, he also presented three specific

examples of how micro data can be used for macroprudential purposes. The first of these was the calibration of sector-specific risk weights. Another study performed by Banco de México investigated the application of the countercyclical capital buffer. The last example referred to the assessment of possible sources of contagion in the case of a crisis, for which Banco de México has created a network based on bilateral connections.

Professor Turalay Kenç briefly explained the specific problems Turkey had to face in the aftermath of the 2008 financial crisis. As an emerging market economy, the country had to deal with sharp increases in short-term investments and currency appreciation. The macroprudential toolkit implemented had its policies split up into two categories. One set of policies focused on controlling the lending channel and curtailing excessive household borrowing. The other group of policies targeted the current account balance and the quality of financing. Macro data then revealed that the policies were effective overall, but additional testing with micro data on a sector-by-sector basis was also needed. Professor Kenç agreed that micro datasets are useful in themselves, but insisted that they should not simply replace macro data, but rather complement them by enriching macro datasets with granular information.

DISCUSSION:

Mr Per Callesen (Danmarks Nationalbank), as discussant for the session, started by mentioning that micro data are instrumental in analysing potential risks to the economy and informing new regulation. In line with previous speakers, he also referred to the responsibilities that arise with the collection of ever-more granular data. In his view, the availability of micro data can be a double-edged sword, as they carry the responsibility for authorities to collect and efficiently use them, and at the same time make sure that there are no legal barriers towards data collection and sharing and that confidentiality is protected.

Mr Callesen addressed some of the questions that the preceding presentations posed. He mentioned that authorities still do not have all the data needed, but good progress is being made in that direction. A theme raised in the presentations was whether newly available data are triggering the creation of new macroprudential policies or are simply helping authorities get better insights into the effect of established policies. Mr Callesen believed both cases to be true. He also stressed that better supervision can be achieved through improved information datasets, and that this can be a benefit to the industry in and of itself.

He also referred to some of the examples from the presentations. He found the results of the Dutch study on interest-only loans very representative of how the use of macro data and micro data can lead to different conclusions, and the adjustment of sector-specific risk weights in Mexico to be extremely productive. Mr Callesen also supported the currency mismatch risk example given by **Mr Kenç** with an example from Denmark, where during the most recent Swiss currency swings domestic pension funds started hedging their exposure in euro leading to suspicions of a “conspiracy” between them. However,

proper analysis revealed a coordination problem rather than foul play. Mr Callesen continued with an overview of available data in Denmark and a brief outlook for the future.

Mr Callesen then provided some additional comments on the presentations of the three speakers. While he agreed that, when making the decision of whether or not to activate a countercyclical capital buffer, identifying the active channel of inflows is paramount, he was not convinced that finding a demand-driven effect should not call for action. Additional sophisticated analysis is needed to define whether what is being experienced is a demand-driven bubble or a fundamental demand increase. In addition, he was not convinced that micro data are necessary in the implementation of limits on consumer loans in Turkey, as macro data are sufficient. The Dutch study on loan-to-value (LTV) ratios was compared to a study performed in Denmark. In the study, households with higher LTV ratios before the crisis were found to have decreased their consumption during the crisis, unlike households with lower LTV ratios, for which consumption remained flat. The conclusion supports the idea that, although stricter pre-crisis LTV ratios could have helped control the situation, the sole fact that they were lacking did not cause the crisis.

In his reply, **Mr Kenç** admitted that micro data are in fact not a necessity when limiting consumer growth. However, he stated that they are crucial when assessing the effectiveness of the above-mentioned policy and could also help banks differentiate between consumers when cutting lending, favouring some instead of just employing a uniform decrease.

QUESTIONS FROM THE AUDIENCE:

The discussion continued with questions from the audience. **Ms Grazia Marchese (Banca d'Italia)** asked about the availability and timeliness of micro data on non-financial corporations (NFCs), with them being on an EU level rather than a country level and being used for macroprudential supervision rather than short-term analysis. **Mr Bruno Tissot (BIS)** considered the fact that more micro data were required after the crisis due to the increased interest in financial regulation, and asked the speakers if they thought the current high demand for micro data was a temporary effect of the crisis or rather a phenomenon that is "here to stay". **Mr Antonio Colangelo (ECB)** asked about the importance of standardisation and harmonisation. Finally, **Mr Aurel Schubert (ECB)** asked whether a full-blown crisis was required in order to overcome the barriers to full data sharing, as was the case in Mexico.

Mr Knot replied that data on NFCs are available for large enterprises and the actual problem is data for small and medium-sized enterprises (SMEs). In his opinion, it is too often claimed that collecting data for SMEs is impractical as it is too costly and data are not comparable. More standardisation on SME data will lead to more automation and lower costs for their collection. However, it is arguable whether it is useful to do this across borders as most SMEs have a limited local sphere of activity. Mr Knot stressed that harmonisation is key as differences in definitions, not only between but also within countries, still

exist. The harmonisation process will also be beneficial for banks, which could make better use of the information for their business decisions.

Mr O'Dogherty agreed with **Mr Knot** that standardisation is vital and he also underlined some of the initiatives undertaken to that end, more specifically the Banks' Integrated Reporting Dictionary. Concerning the existing differences in definitions across countries and institutions, he mentioned that they can, at times, make data non-comparable. He finished by adding that we do in fact need crises to push authorities towards achieving full sharing of data between countries and institutions. In this respect, crises are a valuable learning experience not only within each country but also globally, as proved by the vast increase in data sharing after the last crisis.

Professor Kenç stressed the importance of the availability of individual and detailed balance sheet data on NFCs to better assess the distribution of risk within the economy. This is becoming increasingly crucial with the amount of new sources of credit that have been developed in recent years. However, there are numerous difficulties in accessing and collecting such data.

While the presenters all agreed that the implementation of micro data will be a permanent phenomenon, **Mr Callesen** also said this has to be the case or we will revert to creating datasets following ad-hoc requests. On NFCs, he was of the opinion that we still lack a lot of data, which is a problem as we need to better assess the risks that can originate from them. Micro data are also essential to understanding the business models of NFCs, not only of those that have debt problems, but also those with excessive cash problems.

A final question from the audience asked for suggestions on the usage of micro data, as they offer almost unlimited opportunities. **Mr Knot** agreed that we have only begun to explore the possibilities and a lot of the available information has not yet been used. He also insisted that national central banks and supervisory institutions are responsible for coming up with ideas on how to use the data and living up to people's expectations.

Vice-President Constâncio closed the session by stating that we need new tools and techniques to work with micro data so that we can benefit from it as much as possible, especially when considering macroprudential policy.