# **The Household Finances and Consumption Project: Discussion** Manuel Arellano ECB-CFS Conference, Frankfurt, September 2008

# **Introduction:** putting the project in perspective

- This is a very important proposal and I am fully supportive of it.
- A remarkable coordinated effort of different central banks of the Euro area. The result of the HFCN is more than an intellectual accomplishment because of an implicit commitment from potential data developers in multiple countries.
- Household survey data on wealth, income and consumption are an essential input for evidence-based policy. But it has not always been like this. Information technologies created new opportunities for the development and analysis of large micro datasets.
  - Empirical papers have become more central to economics than they used to, and standards of empirical credibility have gone up.
  - The gulf between the practice of survey statisticians and econometricians (to which Deaton referred 10 years ago) has considerably narrowed.
  - Applied economists are closer to (and sometimes involved with) data production, increasing their awareness about the implications of sample design and methods.
  - Microdata at central banks: Long are the days when a central bank researcher or policy analyst would be exclusively concerned with time series analysis of aggregates.

# Why is HFC micro information important?

- Micro-level structural statistical information:
  - This expression has been used in this context and I like it.
  - It refers to slowly changing aspects of an economy that are not easy to measure, so it makes sense to update every 2 or 3 years.
  - A major goal is to have comparable statistics for the Euro area.
- Research:
  - Macro: Wealth and income inequality. Understanding the process of wealth accumulation is a central purpose of some macro models. The model is intended to match the empirical wealth distribution.
  - Macro/Micro: Wealth effects on consumption. Entrepreneurship...
  - Household finance: Portfolio allocation. Indebtedness...
  - Micro inequality measurement.
- Macro-motivated micro empirical research has a long tradition. Research that combines micro and aggregate information will be increasingly important.
- Some of this research may be curiosity-driven, but these are basically policy motivated questions. Both statistical and research outputs are relevant policy inputs.

### Management/development of the survey

- Household finance surveys are naturally placed in the orbit of central banks. Not only because of the specialized nature of the questionnaire, but also because of their dual policy/research purpose.
- A successful household finance survey relies on a sophisticated capital of knowledge concerning managing resources, design of questionnaire, interviewer training, CAPI programming, monitoring, etc.
- Fears such as "This may be OK in your country but not in mine; here no one will answer such questions and if they do they will lie" are based on ignorance of what it takes to conduct this type of survey, and must be dispelled.
- The formula adopted is sound: agreement on a set of core variables, probability sample, and coordinated country-specific conduct. A probability sample is essential.

### Policy on data availability

- Availability of individual data to researchers is paramount.
- Not just to facilitate research uses of the data, but also as a way of subjecting data to scrutiny and ensuring quality.
- There is a global research community. Research conducted at central banks feeds back and forth to related research produced in universities and other research groups.
- The quality of the data is eventually affected by its availability.
- Refereed journals have a policy of replicability and availability of data used.
- Technological developments help with the anonimization of individual registers. The experience in Scandinavian countries with administrative data is a case in point.

### Looking ahead: European survey organizations

- An unfortunate limitation in many European countries is the lack of tradition of independent survey research organizations, such as ISR and NORC (which collects the data for the SCR) in the US, or NatCen in the UK (which collects the data for ELSA).
- There is a segment of the survey data-collection industry in Europe, focused on commercially motivated opinion polling data, that is not always a good match for the (programming and field work) needs of a project such as an HFS.
- It would be a welcome development if one or several independent organizations with an European orientation and local networks further develop in the future.
- This is well beyond the scope of this proposal but worth to keep in mind.

# **Specific issues**

- I have no comments on the questionnaire, except perhaps that it is much shorter than the SCF and other surveys, and there is scope for including more information.
- Next I provide comments on three aspects: oversampling, panel data, and imputation.

### **Oversampling the wealthy**

- Wealth distributions are very skewed and long-tailed. So good information about the tail is important for constructing aggregates: micro information matters for macro magnitudes.
- Since not many units populate the tails, in principle a large sample would be needed. An alternative is to use stratified sampling if we know of strata that are popular in the tails and their population weights are known.
- Thus, oversampling can be a cheaper way of achieving a given degree of statistical precision in measuring key quantities.
- A nice example on the precision of some wealth distribution statistics routinely reported:
  - Take the SCF and obtain the bootstrap standard errors that would result from randomly sampling the US population instead of using oversampling.
  - It turns out that the 95% confidence interval for the percentage of wealth held by the top 1% of the population in the absence of oversampling is almost as large as the (20 percentage point) international variation in this figure (O. Bover 2008).
  - So oversampling can be a way of lowering costs and important for international comparisons.

### **Panel component**

- Populations change over time. So if we seek a representative sample of the population in 2008, the easiest is to draw it anew. If in 2010 we re-interview the same units, we'll get magnitudes of the 2010 variables of a sample representative of 2008, not of 2010.
- But if we have a panel we can look at joint probabilities of the 2008 and 2010 variables (distributions of differences, transition probabilities, etc.).
- So there seems to be a tension between panels and repeated cross-sections.
- In fact, these two designs serve different purposes and we may wish to go for an intermediate design that strikes a compromise if we think that both purposes are worth attending to.
  - From a descriptive point of view clearly both aspects are of interest: e.g.: static and dynamic inequality.
  - From a policy or research point of view both pure panels and pure repeated crosssections may have serious limitations. A fundamental reason for having a panel component is handling unobserved household heterogeneity in a credible way.

#### An Example from the recent consumption literature

- Blundell, Pistaferri and Preston (2008) emphasize changing volatility of individual shocks over time for understanding the relation between income and consumption inequality.
- A period-specific variance of a shock can itself be regarded as an aggregate shock. These are estimated from period-specific cross-sectional averages, so having crosssectional representative samples is potentially important to assess the extent of time variation in volatilities.
- On the other hand, panel data is essential to identify the persistence/transmission of shocks.
- We lack common practices in applied econometrics that internalize these concerns.
- Under the assumption that the sampled units of one year can be made into a representative sample of another year by re-weighting, progress could be made, but this requires a goal in the design of the data to combine both objectives.

#### **Panel component (continued)**

- So there are both important descriptive and structural/policy benefits from having a panel element. Overall I would favor a combined scheme of a panel design with refreshment samples.
- It would be interesting to compare the research uses of comparable datasets that are panels with those that are not in terms of volume of papers generated, impact of the research and so on.
- My impression is that if we wish this new European survey to have not only an impact in the production of statistical information but also on research (and therefore on policy) sooner or later a panel component will become a necessary ingredient.

# Imputation

- Imputation is essential if we wish that the data are widely used.
- The basic philosophy of imputation (as advocated by Rubin for example) stands on solid ground, but feasible imputation practice still rises many questions.
- Basically because there is much that we still do not know in terms of implications of alternative procedures, robustness in the context of relevant applications and the like.
- My view is that this project has to follow best existing practice and produce imputed data. Item non-response is so important in wealth surveys that in this context the need for imputation is clear cut.
- However, this should be done in the understanding that it will be part of an emerging research area bringing together economists and statisticians.