MARTHA TOVAR: THE MICRO-MACRO ANALYSIS WITHIN THE HOUSEHOLD SECTOR IN MEXICO

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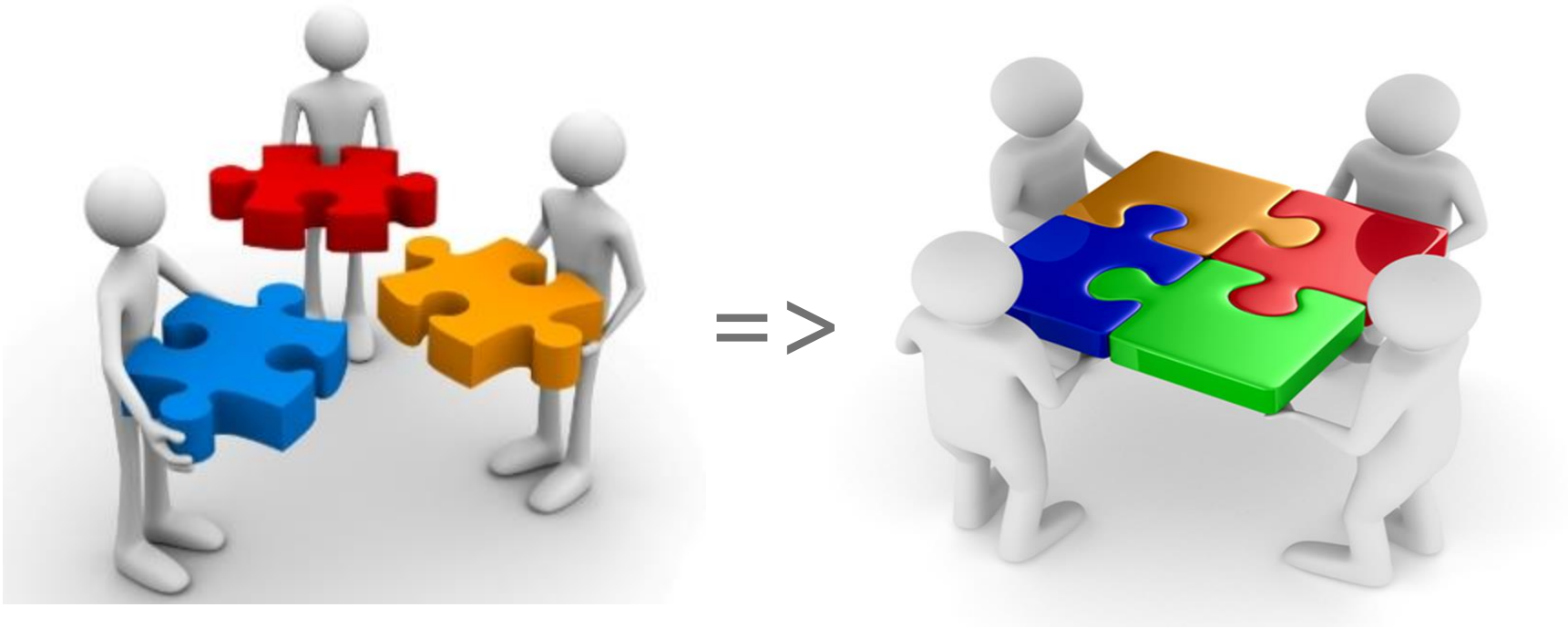
Main topic of the paper: micro-macro linkage of distributional income data



Starting point

- Part of the work of the OECD Expert Group on Disparities in National Accounts (EG DNA)
- Goal: aligned distributional measures for income, consumption and savings
- Quantification of discrepancies between micro-data from surveys and macro-data from national accounts at the most detailed level of transactions possible
- Results show significant underreporting of some income (and consumption) categories in household surveys
- How to adjust for the under-coverage, beyond a simple proportional allocation?

Basic methodology of OECD EG DNA

Step 1 – Adjust national accounts totals
(exclude NPISHs, expenditures of non-resident households and people living in non-private dwellings)

Step 2 – Identify relevant variables from micro data sources that can be matched to NA variables
(different data sources may be used for the various income and consumption items)

Step 3 – Impute missing elements and scale the micro data to the adjusted national accounts totals
(e.g. imputation for STiK, FISIM, income attributable to policy holders)

Step 4 – Cluster households into groups
(on the basis of equivalized disposable income)

Step 5 – Derive relevant indicators for household groups
(e.g. ratio to the average, highest to lowest)

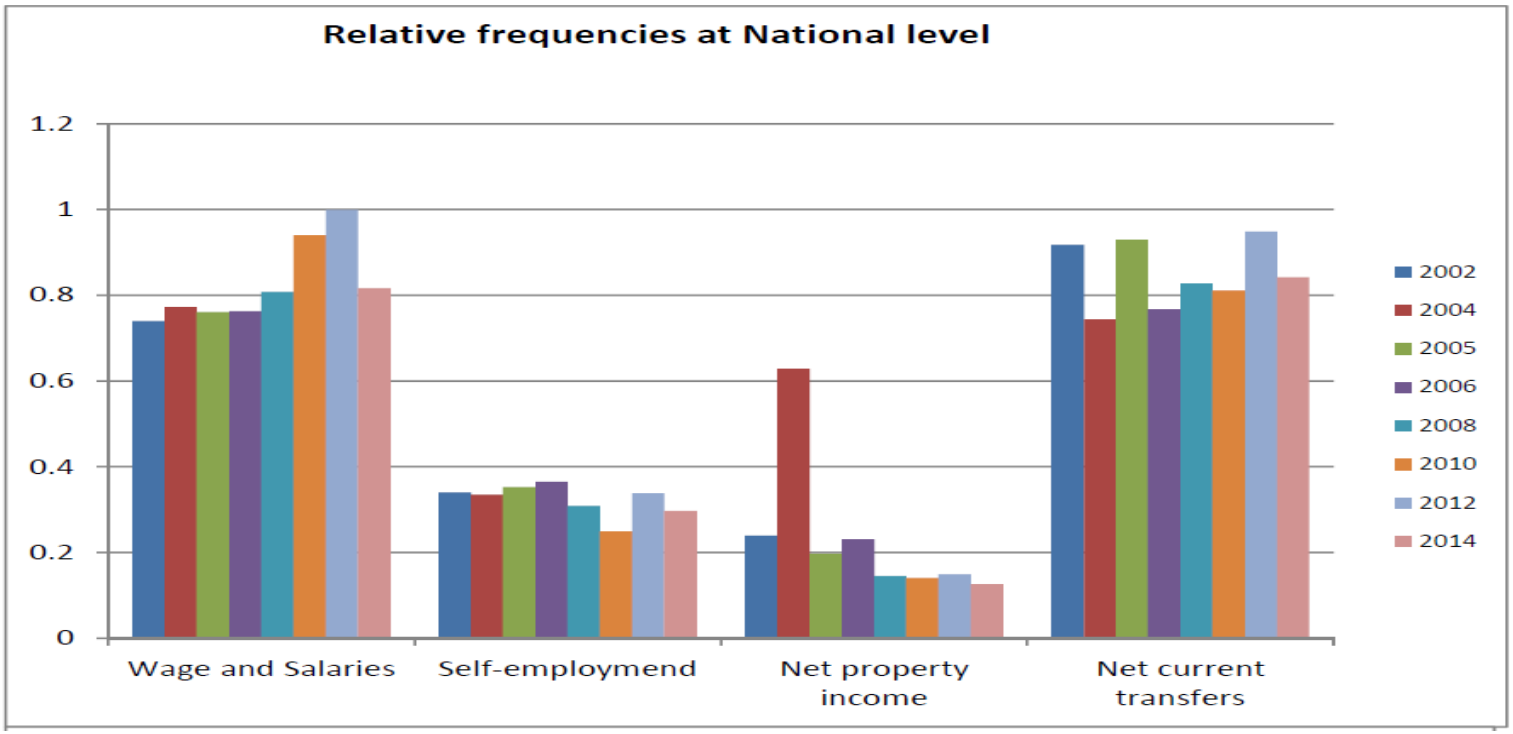
Basic methodology of OECD EG DNA

- Main gaps for income categories: income from self-employment and property income
- Critical part of the exercise: how to scale the micro-data upwards, to align them to national accounts
- In the absence of further information, most countries apply a simple proportional allocation
- However, more refined methodologies are discussed and further elaborated
- Martha's paper excellent example of this work

More refined methods in Mexico

- Time series analysis of coverage rates => three categories:
  - Good coverage, stable development (e.g. wages and salaries)
  - Poor coverage, stable development (e.g. mixed income and current transfers)
  - Poor coverage, erratic developments (e.g. interest and dividends received
- Possible explanations for 2nd and 3rd categories:
  - National accounts are wrong => for the time being discarded
  - Very sensitive and erratic responses
  - Sample not representative, or experiencing declining representativeness
- More detailed analysis of micro-surveys

Trends in representativeness for certain income types

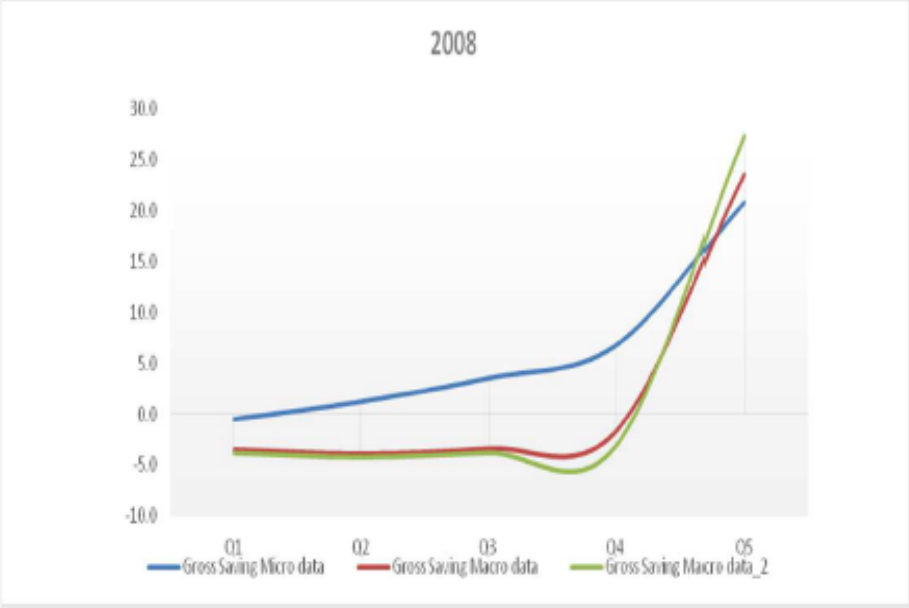


- Break in 2008, especially for wages and property income
- Erratic behaviour in some of the years observed
- Declining representativeness in property income (not adjusted by weighting), consistent with coverage ratio
- Note: developments in income of observed households consistent with national accounts

Further work on some categories

- After discussing some of the literature on aligning micro and macro, the following concrete proposals are made:
  - Property income analysed at the most detailed transaction level:
    - Incidence almost completely in the top quintile => full discrepancy allocated to top quintile
    - Incidence more spread (including interest paid) => proportional allocation
    - Investment income on life and non-life assurance => allocation based on participation
  - Mixed income: detailed analysis of formal and informal production by activity
  - Social contributions: based on distribution of wages and salaries
  - Remittances: based on geographical distribution that can be derived from Balance of Payments and incidence of remittances in the survey

Results (1)


2008
30.0
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15.0
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-5.0
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Q1
Q2
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Q4
Q5
Gross Saving Micro data
Gross Saving Macro data
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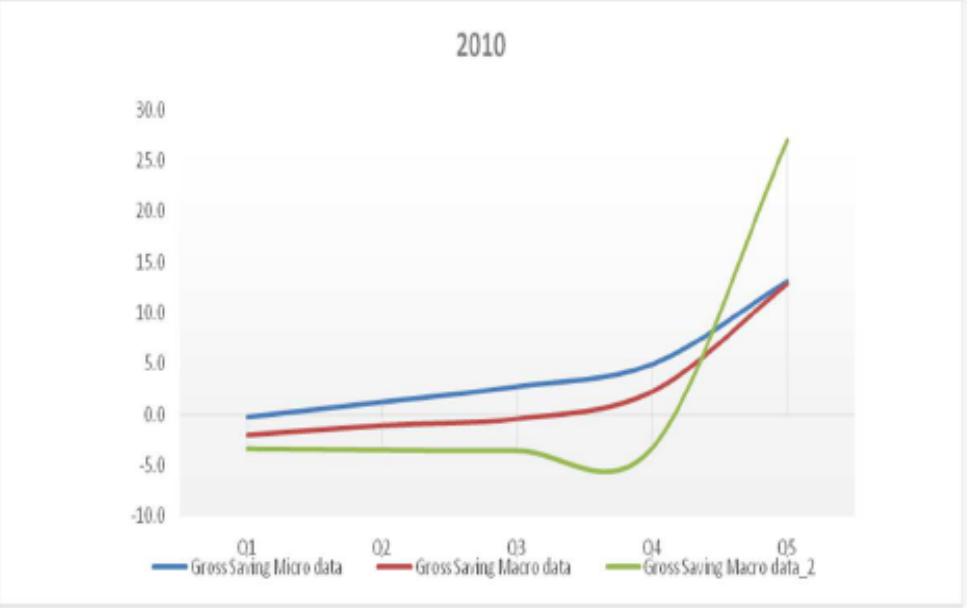
2010
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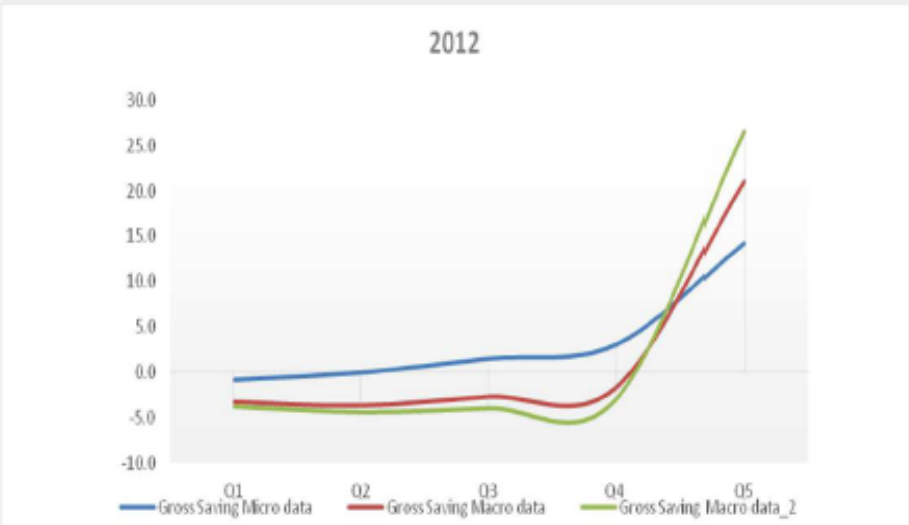
2012
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Q1
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Gross Saving Micro data
Gross Saving Macro data
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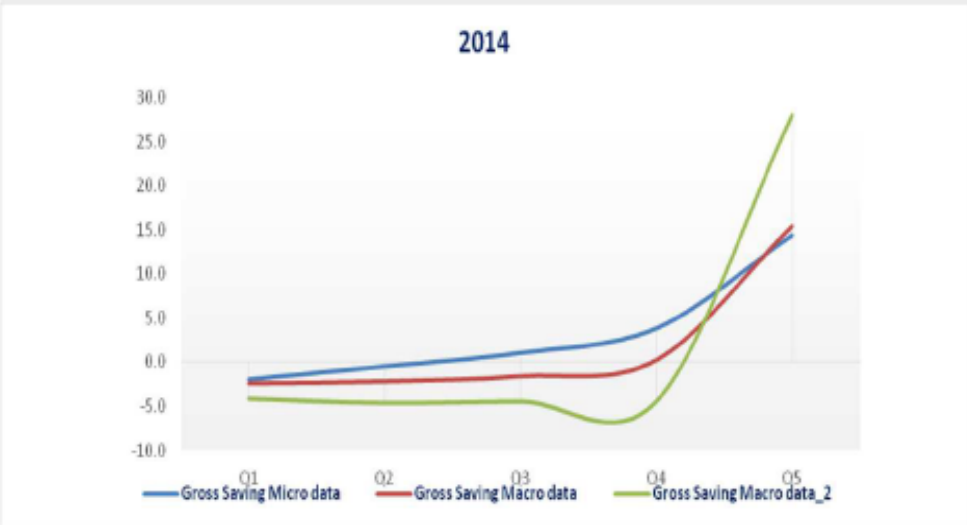
2014
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Q1
Q2
Q3
Q4
Q5
Gross Saving Micro data
Gross Saving Macro data
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Results (2)

- Micro-data generally show positive saving rates across quintiles
- When adjusted to national accounts, the first 3-4 quintiles have negative saving rates, even more so when applying the more refined method
- But … lines mixed up?
- Surprisingly, often fourth quintile has the most negative savings rate

Future work

- Address the issue of negative saving rates
  - Methodology for imputing taxes on income
  - Having a closer look at the allocation of discrepancies for consumption items
  - Having a closer look at income items, for which data in the income survey show higher results than the one according to national accounts => adjustment national accounts?
  - More detailed analysis of households with negative saving rates

Discussion

- Very rich paper, it was not possible to address all the issues discussed in the paper
- Saving rates?
  - It strikes me that the adjustment to national accounts has such a negative impact on saving rates in the first 3-4 income quintiles; provide further explanation
  - Any reason for the fact that the fourth quintile shows the most negative saving rates?
  - Consider further analysis of types of households included in the various quintiles?

Discussion

- Mixed income: lot of hidden activities may be a source of income for lower income quintiles, has this been taken into account?
- Use of administrative data, either to evaluate the micro data, or even better, to have a further integration of survey results and administrative data, to arrive at an improved set of micro data (foot-note 8)
- Need to discuss bilaterally the OECD-method for allocating discrepancies: it seems to be misrepresented or I have misinterpreted the relevant text in the paper

Thank you for your attention!