A synthesis of Distributional National Accounts methods in rich and emerging countries: France, USA, China, India, Russia, Middle East

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This presentation: a quick synthesis of DINA (Distributional National Accounts) methods based upon the following papers (all are available as WID.world WPs)

- "Distributional National Accounts: Methods and Estimates for the **United States**" (joint with E. Saez, G. Zucman) (QJE 2018)

- "Income Inequality in **France**, 1900-2014: Evidence from Distributional National Accounts (DINA)" (joint with B. Garbinti, J. Goupille-Lebret) (JPubEc 2018)

(US-FR = sophisticated DINAs, based upon quasi-exhaustive fiscal micro files, household survey data and national accounts)

- "Capital Accumulation, Private Property and Rising Inequality in **China**, 1978-2015" (joint with L. Yang, G. Zucman)

- "**Indian** Income inequality dynamics 1922-2015: From British Raj to Billionaire Raj" (joint with L. Chancel)

- "From Soviets to Oligarchs: Inequality and Property in **Russia** 1905-2016" (joint with F. Novokmet, G. Zucman)

- "Measuring Inequality in the **Middle East** 1990-2016: The World's Most Unequal Region?" (with F. Alvaredo, L. Assouad)
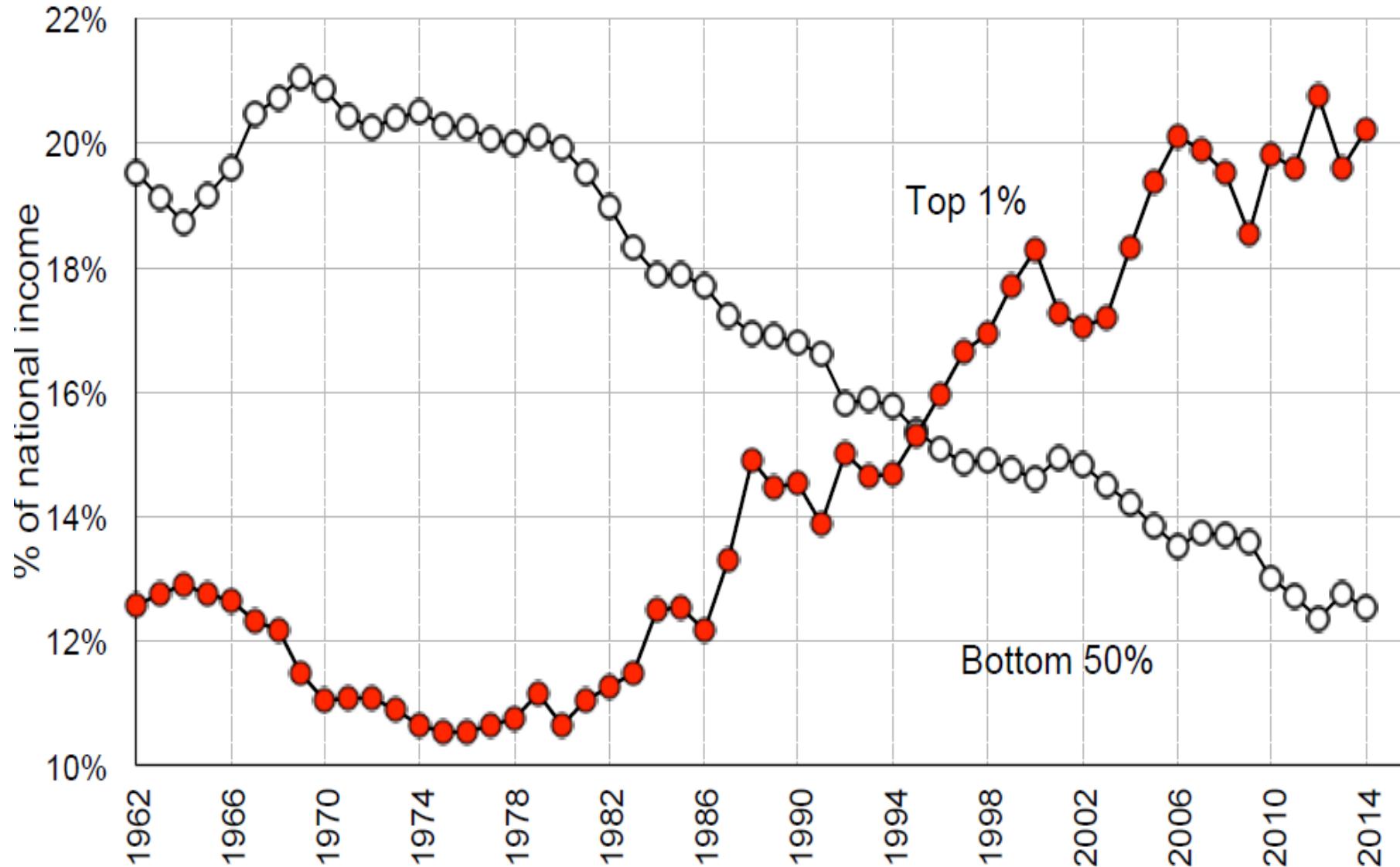
(CH-IN-RU-ME = highly simplified DINAs, based on basic survey and tax tabulations)

See also Alvaredo-Atkinson-Chancel-Piketty-Saez-Zucman, « **DINA Guidelines: Concepts and Methods used in WID.world** », WID.world WP 2016/2
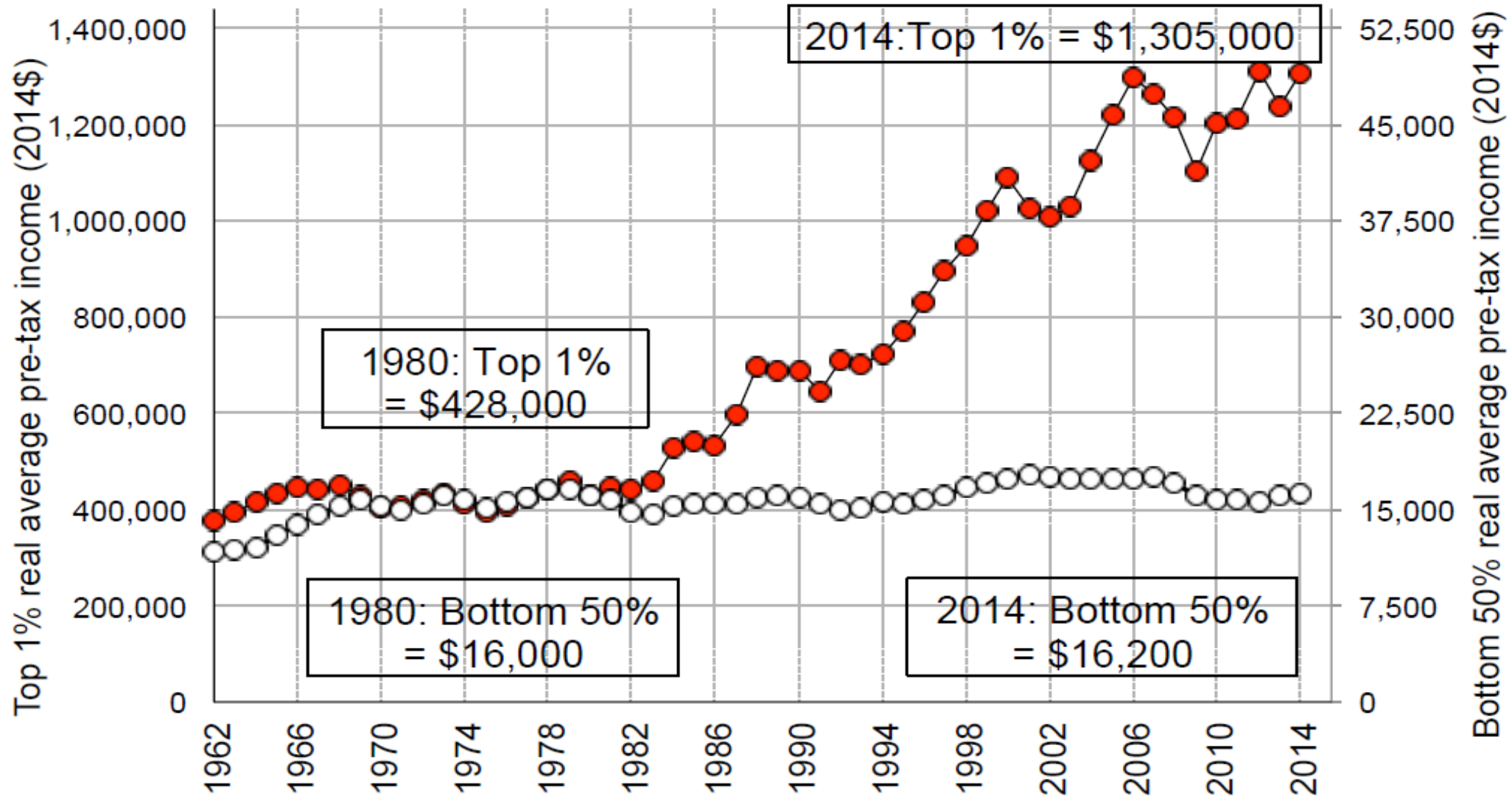
« Sophisticated DINAs »: US and France

- **We start from large micro-files of income tax declarations** (available annually since 1962 in US and since 1970 in France) (several 100,000 or million observations, quasi-exhaustive at the top, and fully exhaustive in recent years)

- **We use household wealth surveys to impute missing assets** and asset income flows (or other income flows) that do not appear in income tax declarations: e.g. owner-occupied housing, life insurance assets or pension funds, etc.; assets that do generate taxable income flows are estimated using capitalization methods (compare with other sources for robustness purposes: inheritance tax data/estate multiplier method, wealth rankings, etc.)

- **We use national accounts to impute other missing income flows** (e.g. corporate retained earnings; very importance, because large variations over time and across countries); in the absence of other information, simple proportional imputation (e.g. taxable dividends are grossed up to match NA totals for dividends and retained earnings); probably understates inequality (to the extent that fiscal optimization ismore prevalent at the top)

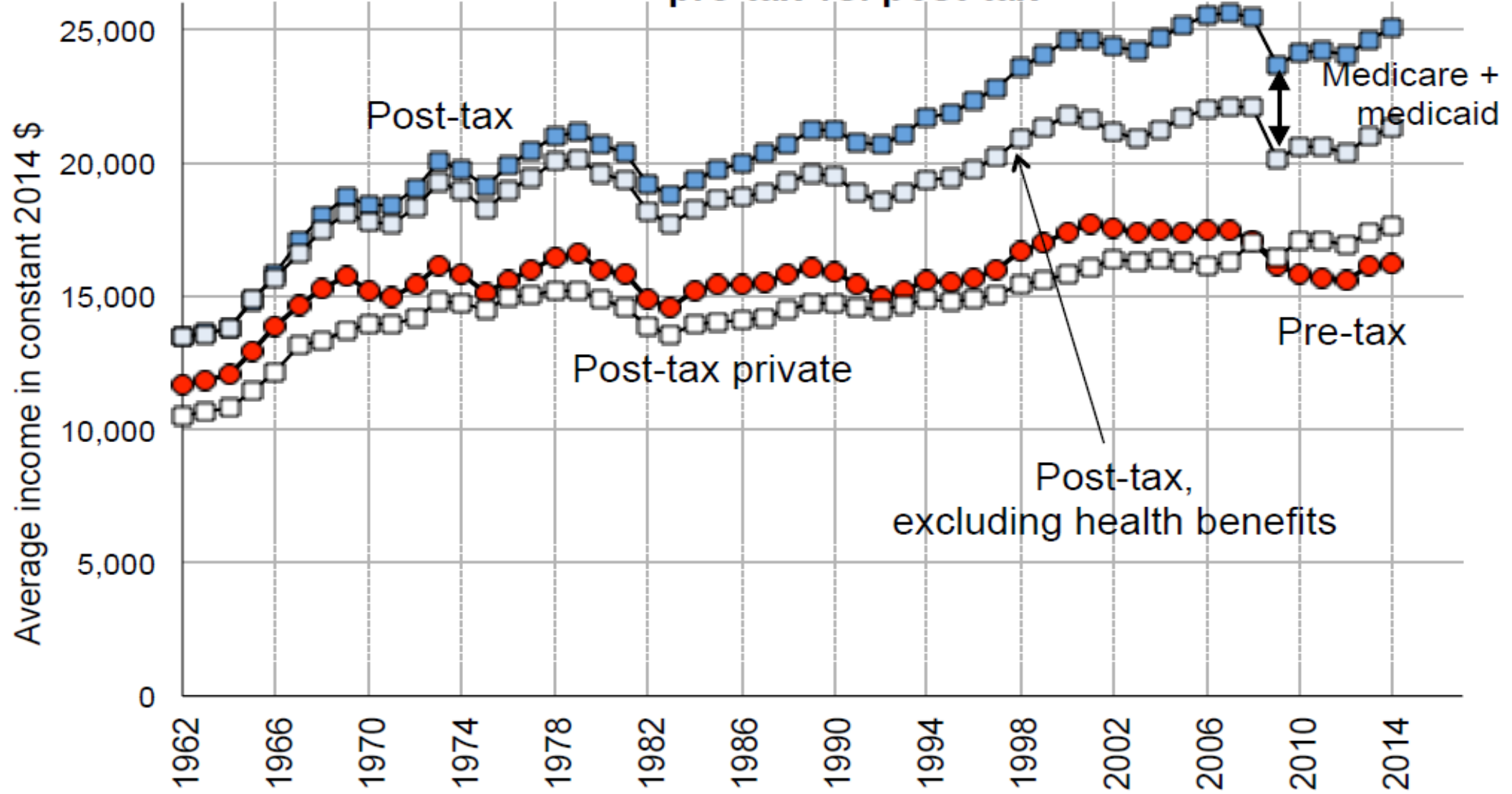# USA: The collapse of the bottom 50% income share

Source: Piketty-Saez-Zucman, « Distributional National Accounts: Methods and Estimates for the US », QJE 2018

1980: Top 1% = 27 x bottom 50% income
2014: Top 1% = 81 x bottom 50% income

Real average pre-tax income of bottom 50% and top 1% adults

2014:Top 1% = $1,305,000

1980: Top 1%
= $428,000

1980: Bottom 50%
= $16,000

2014: Bottom 50%
= $16,200

Real income of bottom 50%: pre-tax vs. post-tax

Average income in constant 2014 $

Post-tax

Post-tax private

Medicare + medicaid

Pre-tax

Post-tax, excluding health benefits

« Simplified DINA »: China, India, Russia, Middle East

- **We start from household income surveys**: micro-files if available, tabulations for some countries (e.g. China)

- **We use GPINTER** (Generalized Pareto Interpolation, http://WID.world/gpinter) to generate income series by percentile and g-percentile (top .1%, .01%, .001%)

- **We use available income tax tabulations in order to upgrade top g-percentiles** and match taxable income levels (this is probably a lower bound correction); tax data available for approximately top 1% income levels in China/Russia and top 5% India; in some rare cases fiscal micro-files are available (Lebanon)

- **We use national accounts to anchor series to national income** (incl. corporate retained earnings etc.): not fully satisfactory, but at least SNAs provide the only existing attempt to provide common definitions of income across countries; in some cases raw series need to be improved (e.g. rental income in China, etc.)

Next steps: improve and clarify « simplified DINA methodology »

- Our DINA estimates are more comparable and more transparent (all computer codes are on-line, etc.) than what we had before

- **But they are still highly unsatisfactory and need to be improved**

- **We need better access to income tax data** (tabulations and micro-files) in India, China, Russia, Middle East, Brasil, Africa, etc.

- The way of the future for inequality measurement: exhaustive fiscal micro-files linked to survey data (e.g. ERFS in France; needs to be extented to wealth: surveys are bad for top incomes and very bad for top wealth...)

- **When survey micro-files are available, we need to develop better reweighting and matching techniques** delivering the same results as simple rescaling techniques used in the absence of micro-files (e.g. China) and allowing to preserve other variables: **see next presentations**