



WORK OF OECD EG ON DISPARITIES IN NATIONAL ACCOUNTS

*TOWARDS REGULAR HOUSEHOLD DISTRIBUTIONAL
RESULTS WITHIN A NATIONAL ACCOUNTS FRAMEWORK*

MEETING OF PROVIDERS OF OECD IDD DATA
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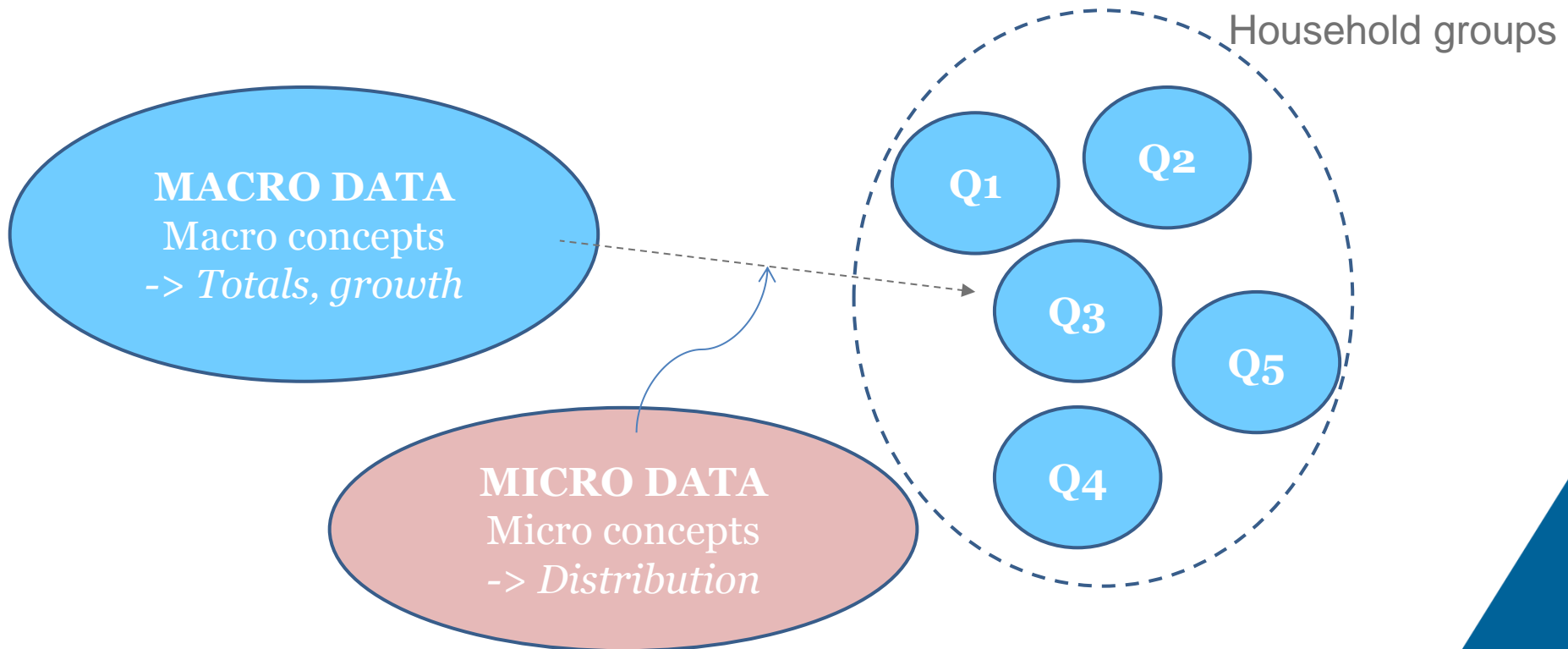
Background

- Stiglitz, Sen, Fitoussi report (2009): More focus on households to better measure people's well-being, a.o. by more focus on distributional aspects
- 2011: Launch of OECD/Eurostat Expert Group to develop methodology to produce distributional results consistent with national accounts concepts using micro data sources
- 2013: Publication of results from a first exercise (working papers on methodology and experimental results)
- 2014: Continuation of the work by an OECD EG DNA to further improve methodology and timeliness
- 2015: Second exercise on basis of improved methodology



Aim of the project (1)

Aim: Develop methodology to produce distributional results for household income, consumption and saving consistent with national accounts concepts using micro data sources





Aim of the project (2)

- Distributional results for three household groupings:
 - Disposable income quintile (5 groups)
 - Main source of income (4 groups)
 - Household type (8 groups)
- The unit of analysis is the household
- OECD-modified equivalence scale is used to allocate households to quintile groups
- Distributional results for household income, consumption and saving consistent with national accounts aggregates
- Calculations performed by members of the EG DNA: AUS, AUT, CHE, FRA, GBR, ISR, JPN, MEX, NLD, PRT, SVN, SWE, USA



Aim of the project (3)

HOUSEHOLD INCOME

Income resources (received):

+ Self-employment income
Imputed rent from dwellings
Compensation of employees
Property income

= **Primary Incomes (PI)**

+ Social benefits in cash
Other transfers

= **Disposable Income (DI)**

+ Social transfers in kind

= **Adjusted Disposable Income (ADI)**

Income uses (paid):

- Property income
(e.g. interests paid on loans)

- Taxes
Social contributions
Other transfers

HH. CONSUMPTION

Expenditure:

+ Food
Clothing
Housing
Health
Education
Transportation...

= **Consumption expenditure (CE)**

+ Social transfers in kind

= **Actual Consumption (AC)**

$$\text{Saving} = \text{DI} - \text{CE} = \text{ADI} - \text{AC}$$

HH. SAVING



Methodology: Step-by-step procedure

Step 1 – Adjust national accounts totals

(exclude NPISHs, expenditures of non-resident hh's and people living in non-private dwellings)

Step 2 – Identify relevant variables from micro data sources that could be matched to NA variables

(e.g. Compensation of employees is composed of 'cash wages and salaries', 'commission', 'bonuses,' etc.; note: micro data sources may differ from IDD)

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)



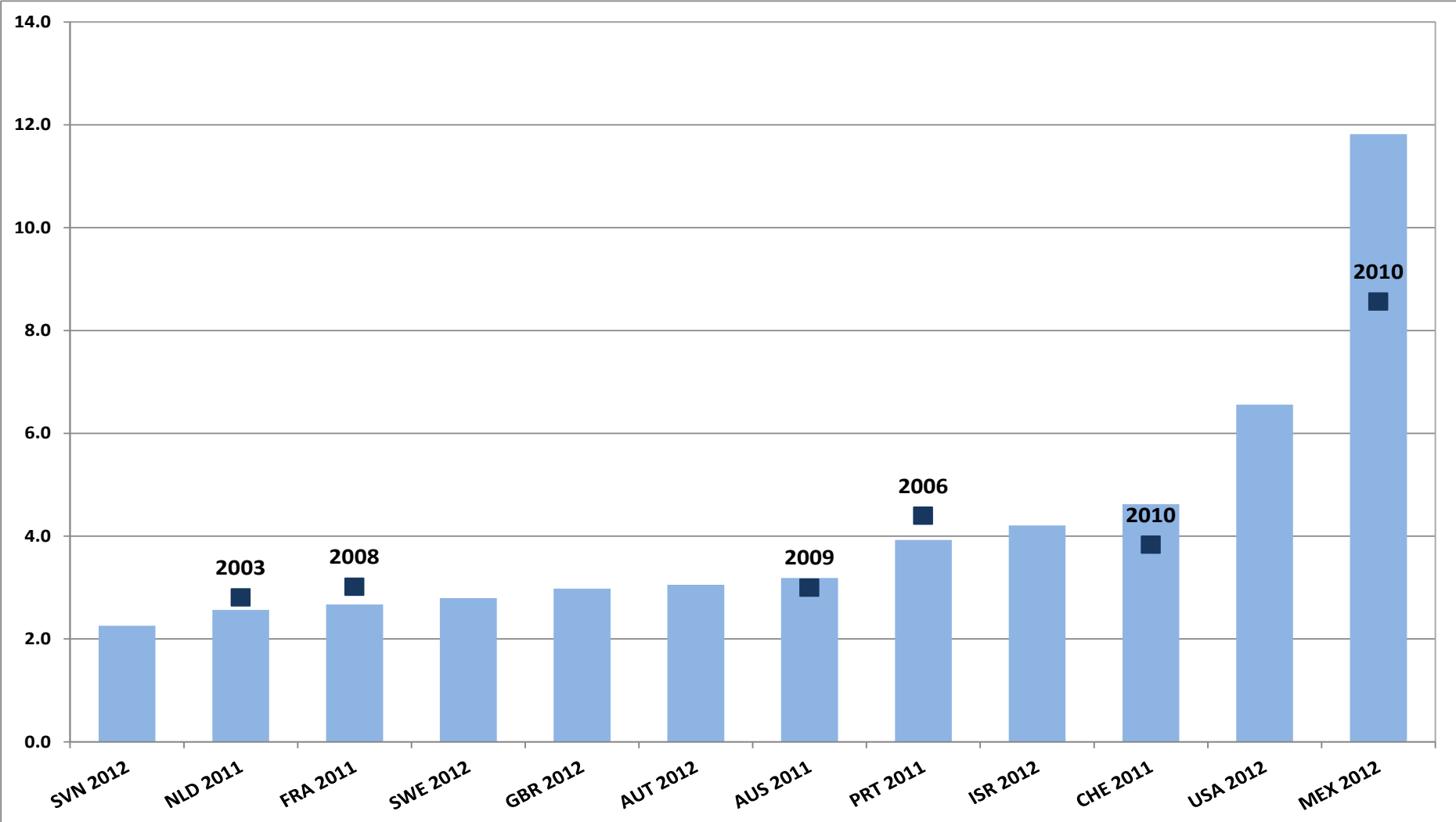
Methodology: Template

Transactions	NA totals		Micro source total	Adjusted hh aggregates by income quintile				
	Original	Adjusted		Q1	Q2	Q3	Q4	Q5
<u>Income resources</u>								
- Compensation of employees								
- Property income								
...								
...								
<u>Consumption expenditure</u>								
- Food								
- Housing								
...								
...								
Number of consumption units								



Results from a recent exercise: Ratio of highest to lowest income

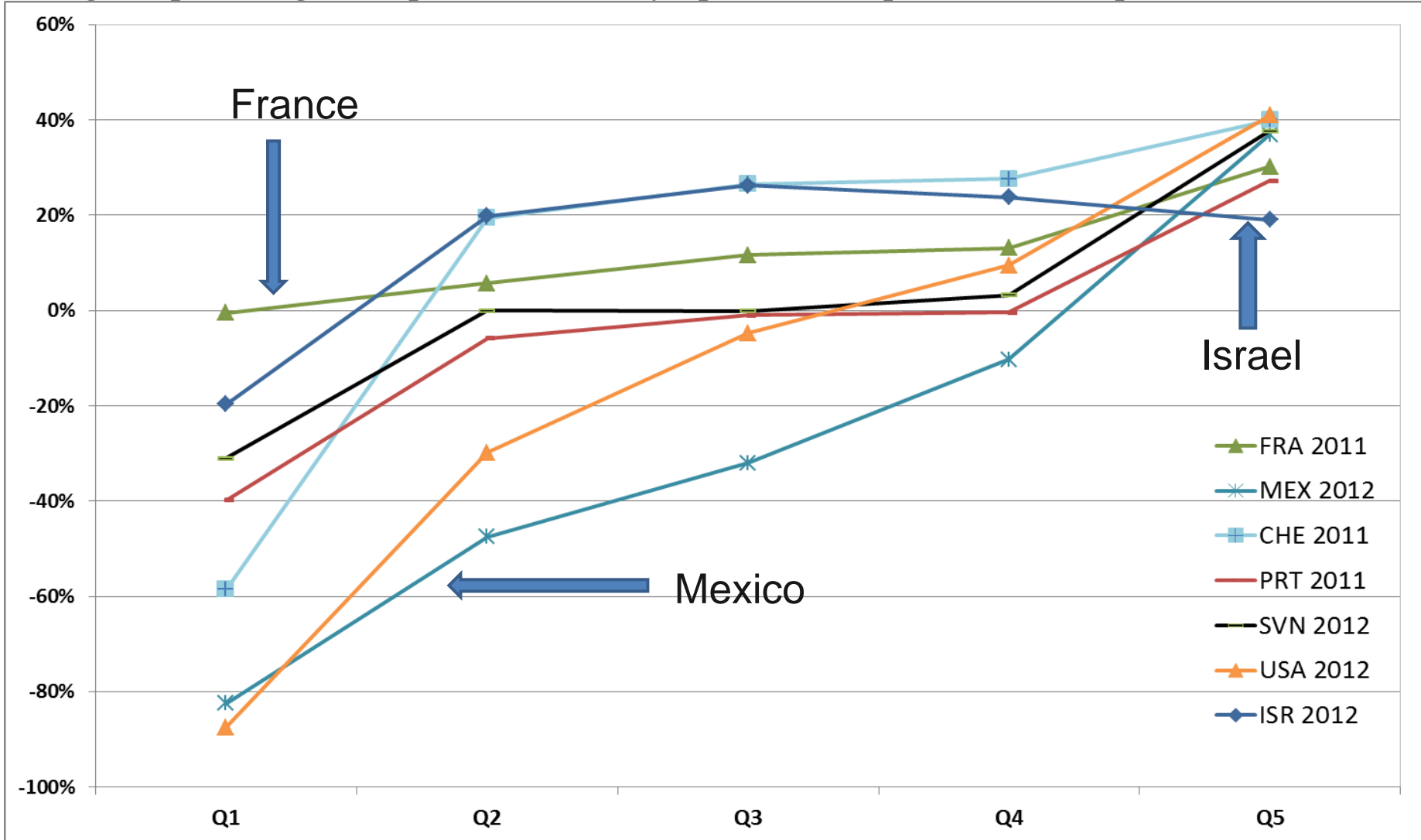
Relative position of the 20% highest to the 20% lowest income households on the basis of adjusted disposable income





Results from a recent exercise: Savings ratios

Saving as a percentage of disposable income by equivalized disposable income quintile





IDD versus DNA versus DINA: Differences and similarities

Items	IDD and WDD	DNA	DINA
Output	Micro data set	Macro aggregates	Synthetic micro data set
Coverage	Income and wealth	Income, consumption and savings	Income, savings and wealth
Income concept	Regular and on-going receipts	SNA disposable income	Personal factor, pre-tax, fiscal and disposable income
Population	All resident private households	All resident private households, incl. underground economy	Adult 20+
Unit of analysis	Individuals (IDD) and households (WDD) (square root eq. scale)	Households (OECD-modified eq. scale)	Individuals
Time of recording	Specific point in time	Accrued over a year	Accrued over a year
Data sources used	Income survey data, admin. data	Income and consumption surveys, admin. data, NA totals	Income and wealth surveys, tax data, NA and balance sheet totals



IDD versus DNA: Differences

- Excluded from IDD (affecting disposable income):
 - Imputed rent of owner-occupied dwellings
 - Investment income attributable to life insurance policy holders and to collective investment fund share holders
 - Reinvested earnings on foreign direct investment
 - Large and irregular transfers
 - Non-life insurance premiums and benefits
 - Winnings from lotteries and gambling
 - Taxes on capital gains
 - Social transfers in Kind



IDD versus DNA: Differences

- Excluded from IDD (not affecting disposable income):
 - Employers' imputed social contributions
 - Investment income payable on pension entitlements
 - Investment income attributable to non-life insurance policy holders

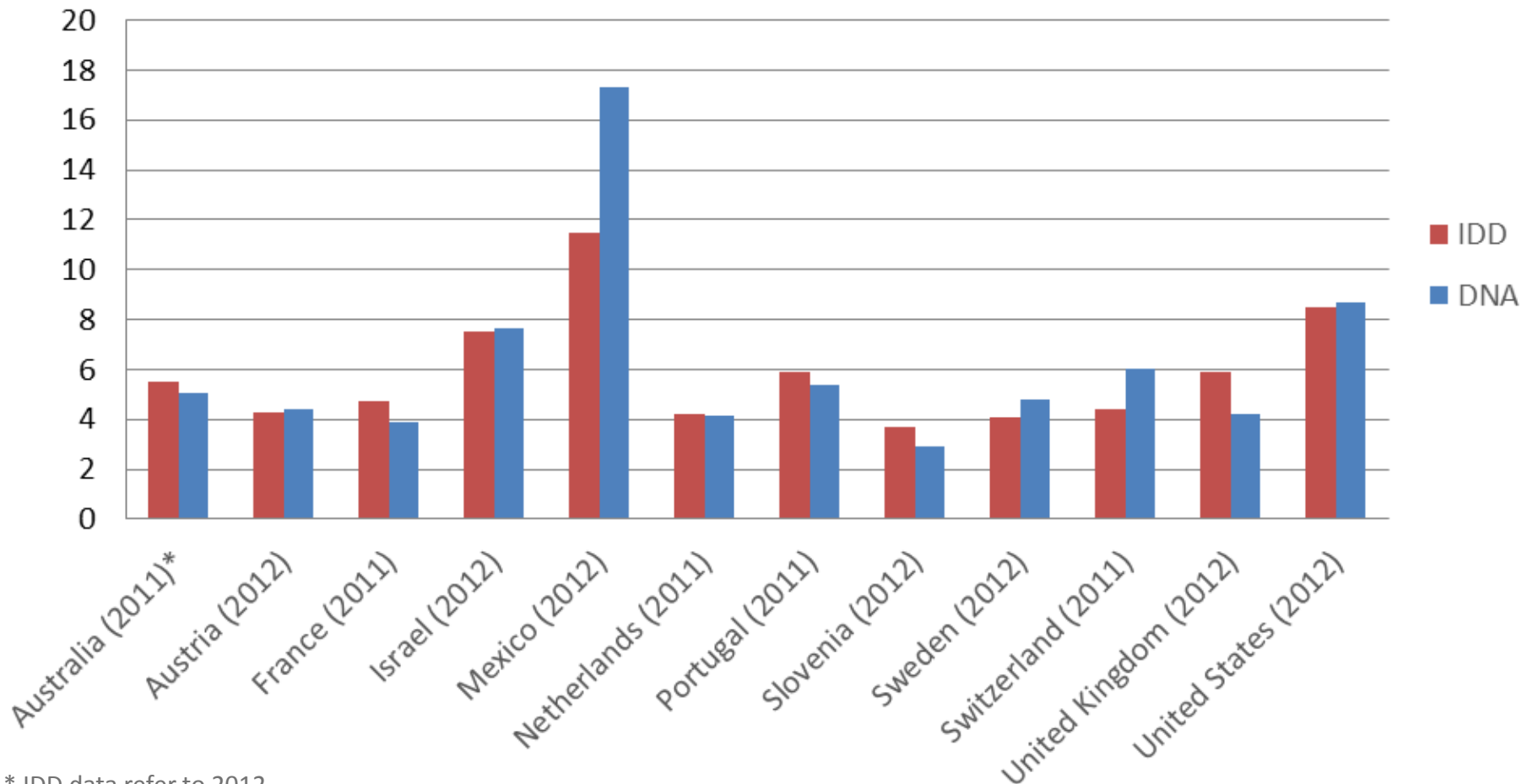
All recorded as income and current transfer in SNA; cancelling out at the level of disposable income.

- Different recording in IDD and SNA:
 - Wages and salaries on sick leave
 - Interest receipts and payments



IDD versus DNA: Differences and similarities

Q5/Q1 ratio for disposable income



* IDD data refer to 2012



Way forward for EG DNA

- Further improve methodology
- Compile longer time-series
- Set up a regular data collection
- Study micro-macro gaps
- Draft a handbook
- Further explore nowcast methodologies
- Explore possibilities of including wealth

For all of this, a strong cooperation is needed between the micro and national accounts experts!



Thank you for your attention

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Challenge of micro-macro gaps

Adjustment coefficient (macro / micro aggregate) for the main income components

Code	Instrument	Average		Minimum		Maximum	
		most recent year	second most recent year	most recent year	second most recent year	most recent year	second most recent year
B2	Operating surplus	1.79	1.27	0.94	1.12	2.43	1.42
B3	Mixed income	2.20	1.79	1.30	1.67	3.50	1.91
D1R	Compensation of employees	1.19	...	1.16	...	1.20	...
D41R	Interest (not adjusted for FISIM), received	2.08	1.90	0.66	0.72	6.40	4.77
D42R	Distributed income of corporations	5.06	10.67	0.70	3.00	17.76	23.50
D41P	Interest (not adjusted for FISIM), paid	3.58	2.47	1.02	1.01	11.31	4.65
D5P	Current taxes on income and wealth	1.18	1.19	0.78	0.74	1.54	1.78
D61P	Net social contributions	1.23	2.01	1.19	1.28	1.27	2.73
D62R	Social benefits other than STIK	1.22	1.30	0.97	0.98	1.55	1.65
D63R1	Education	0.94	0.88	0.72	0.78	1.13	0.98
D63R2	Health	1.36	1.37	1.16	0.99	1.73	1.75



Possible reasons for micro-macro gaps in EG DNA exercise

Step 1: Adjustment of NA totals

- A. Quality of NA totals
- B. Quality of the adjustments

Step 2: Linking micro data source to NA variables

- C. Conceptual and classification differences
- D. Underground economy and illegal activities
- E. Quality of micro data
 - Estimation errors
 - Measurement errors

Please note that sources used may differ from IDD!