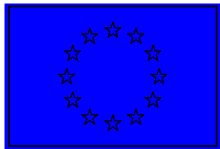




**Improving the volume comparison of GDP:
consistent treatment of tips, income in kind,
discounts and VAT in NA and PPP**

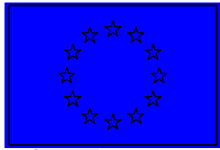
Consultation on the ECP

W.P. 10



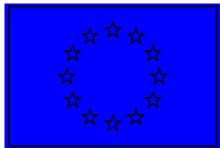
Outline of presentation

- & Introduction and outline of the issues
- & Treatment of tips, income in kind (IiK), discounts and VAT in National Accounts (NA) and PPP price surveys
- & Improving the volume comparability of GDP - issues on tips, IiK, discounts and VAT
- & Conclusions



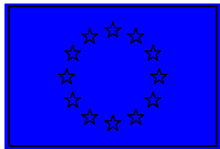
Intro and outline of the issues

- ↑ **The discussion about the reliability of PPP**
- ↑ **Discrepancies between the development of NA aggregates (esp. GDP) deflated by PPP and constant price aggregates of NA**
- ↑ **Many objective reasons for inconsist.:**
 - ↑ **PPP prices collected follow basket of international price comparison**
 - ↑ **CPI basket used in NA constant price calculations different from the PPP basket**



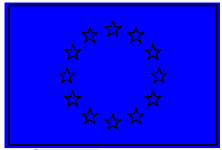
Intro and *cont'd*

- ↑ Aim here: improved consistency between PPP and GDP values deflated with PPP
- ↑ Mainly about adjusting the prices,
- but the improvements should also be made on the NA front to ensure the proper weights for PPP aggregation




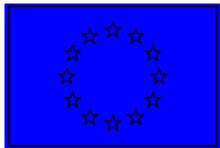
Intro and *cont'd*

- ↑ **The consistency between the GDP values and the PPP does not automatically ensure price comparability**
 - ↑ (for price comparability the separate PPP is needed)
- ↑ **For volume comparability the consistency is what mainly matters**
 - ↑ but “formal” consistency leads to volume comparability at basic heading level. Volume comp. at GDP level can only be achieved if the NA weights are perfect




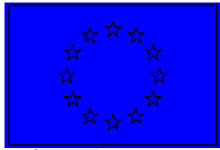
Treatment of the TIPS in NA and PPP price surveys

- ↑ **Tips: cash payments voluntarily given to service providers**
- ↑ **ESA95/SNA93: tips part of output and Household Final Consumption Expenditure (HFCE)**
- ↑ **In NA practice: often recorded** 
- ↑ **Price surveys: do not include tips**



Treatment of the **INCOME IN KIND (IiK)** in **NA** and **PPP** price surveys

- ↑ **Income in kind is non-cash income and also the expenditure of individuals at the same time and thus part of HFCE**
- ↑ **Types of income in kind:**
 - ↑ cheap dwellings arranged by employers
 - ↑ cheap meals arranged by employers
 - ↑ use of working equipment for private needs
 - ↑ free energy/heating supply
 - ↑ cheap agricultural products
- ↑ **Estimates often made in NA** 



INCOME IN KIND: canteens' case

- ↑ The focus here is on the canteens (important item in EU)**
- ↑ Two ways of making meals cheap:**
 - ↑ subsidies to the canteen: prices collected are below the normal market prices**
 - ↑ “coupons’ system”: price reductions got with coupons issued by employers: prices collected are the market prices**

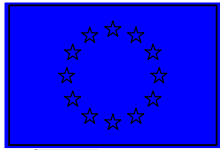


Treatment of the **PRICE DISCOUNTS** for cars in NA and PPP price surveys

↑ In National Accounts:

- ↑ use side, i.e. data derived from Household Budget Survey
- ↑ supply side (commodity flow), output information from dealers
- ↑ number of cars registered \times list price

↑ Price surveys: list prices collected and used for PPP



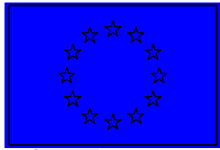
Treatment of the VAT on capital goods in NA and PPP price surveys

↑ In National Accounts:

↑ VAT effectively paid is recorded by the
investing unit, also called
non-deductible VAT

↑ Price surveys:

↑ capital goods experts try to allow for different
rules for deducting VAT, however, this is not
done consistently over all countries



Treatment of the VAT on capital goods in NA and PPP price surveys cont'd

↑ **Deductibility rules**

- ↑ **companies can deduct almost fully**
- ↑ **government pays normally almost all amount
(no deductibility)**
- ↑ **certain deductibility rules for particular
products (e.g. passenger cars)**

↑ **Different VAT rates in place**



Improving the volume comparability of GDP - TIPS



Case	Household final consumption expenditure	Price collected in PPP work	Volume comparability	What should be done in PPP work?
1	Tips not added	Tips not added	yes	Nothing
2	Tips added	Tips not added	no	Tips should be added to the price

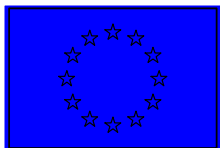
In case 1 the volume comparability is ensured*, in case 2 *not* and the price should be adjusted

***Total GDP volume comparability ensured only when PPP weights perfect**



Improving the volume comparability of GDP - TIPS cont'd

- ↑ If the country has tips included in NA:
the volume of GDP of that country is
overestimated in relation to other
countries that do not have the tips in NA
- ↑ The degree of overestimation depends on
the rate of tips and coverage of tips in NA



Improving the volume comparability of GDP - INCOME IN KIND in canteens

↑ **Way of making meals cheap: direct
subsidy or the ownership of canteen**

Case	Household final consumption expenditure	Price collected in PPP work	Volume compara- bility	What should be done in PPP work?
1	Income in kind is added	The price is below the normal market	no	The price should be increased
2	Income in kind is not added	The price is below the normal market price	yes	Nothing

**In case 1 the volume comparability is not
ensured and the price should be adjusted
up, in case 2 comparability is ensured***

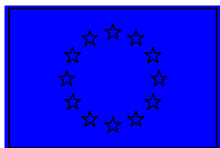
***Total GDP volume comparability ensured only when PPP weights perfect**



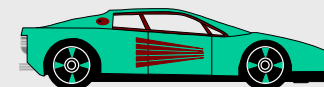
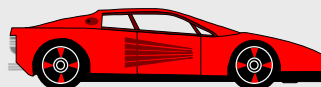
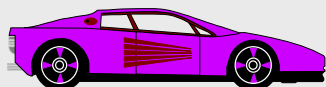
Improving the volume comparability of GDP - INCOME IN KIND in canteens

↑ Is the an over- or underestimation of the
volume of GDP in that case???:

↑ subsidies to canteens: if income in kind is
included in NA - this leads to *overestimation*
of GDP volume compared to the other
countries that do not have it included



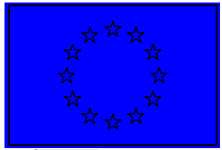
Improving the volume comparability of GDP - DISCOUNTS for cars' prices



Case	Household final consumption expenditure	Price collected in PPP work	Volume comparability	What should be done in PPP work?
1	Discounts taken into account (expenditure is at market prices)	Discounts not taken into account (list price)	no	The price should be adjusted (downwards) for discounts to arrive at market price
2	Discounts not taken into account: expenditure estimated based on list prices	Discounts not taken into account (list price)	yes	Nothing

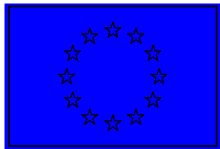
In case 1 prices to be adjusted down*

***Total GDP volume comparability ensured only when PPP weights perfect**



Improving the volume comparability of GDP - VAT on capital goods

- ↑ **Use of the average rates of effectively paid VAT from national accounts**
- ↑ **for example, supply and use tables could be used**



Conclusions

- ↑ **Message: consistency between GDP values and PPP**
 - ↑ **but not just formal consistency** (this leads only to comparable volume indices at BH level)
- ↑ **The intention is to adjust the prices**
- ↑ **Eurostat will ask for information** (draft questionnaires designed)