



GDP: an appropriate measure of prosperity?

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Introduction: what we plan to do [Muriel]

Is GDP an appropriate measure of prosperity?

Rule of the game:

- *Not a "philosophical" discussion about well-being.*
- *We will confine ourselves to the world of "national accounts" (and some "satellite" accounts).*

Introduction [Eurostat]: the basic concepts

Conceptual basis – European System of Accounts (ESA) based on worldwide "SNA"

Very detailed and balanced system, but summary measures:

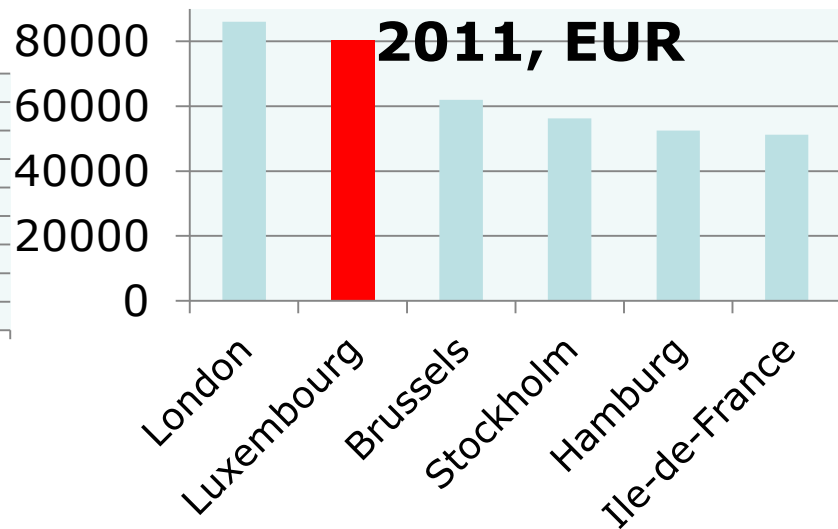
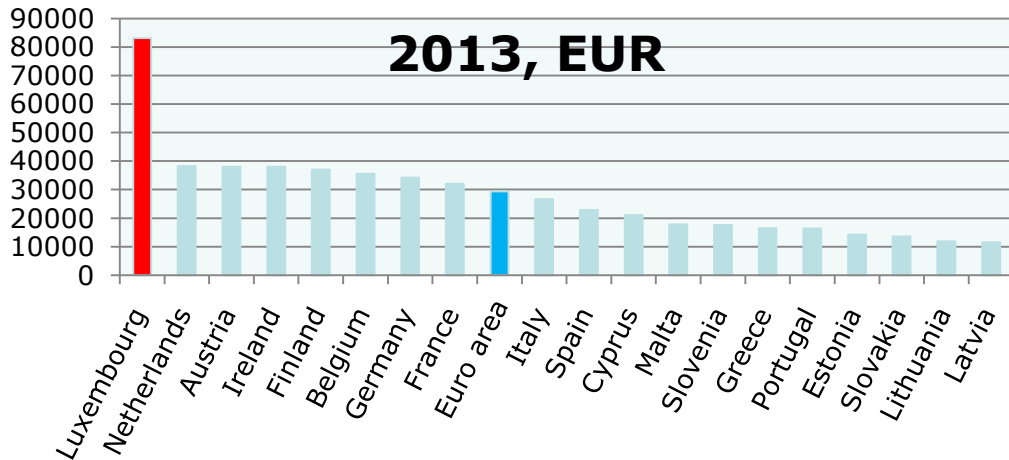
GDP: *sum of domestic production value added/incomes/expenditure*

GNI: *GDP +/- certain cross-border income flows (wages, interest...)*

NNI: *GNI – depreciation (=using up of fixed assets)*

GDP per capita [Muriel]

GDP per head is (very) high in Luxembourg
(EUR 83 050):

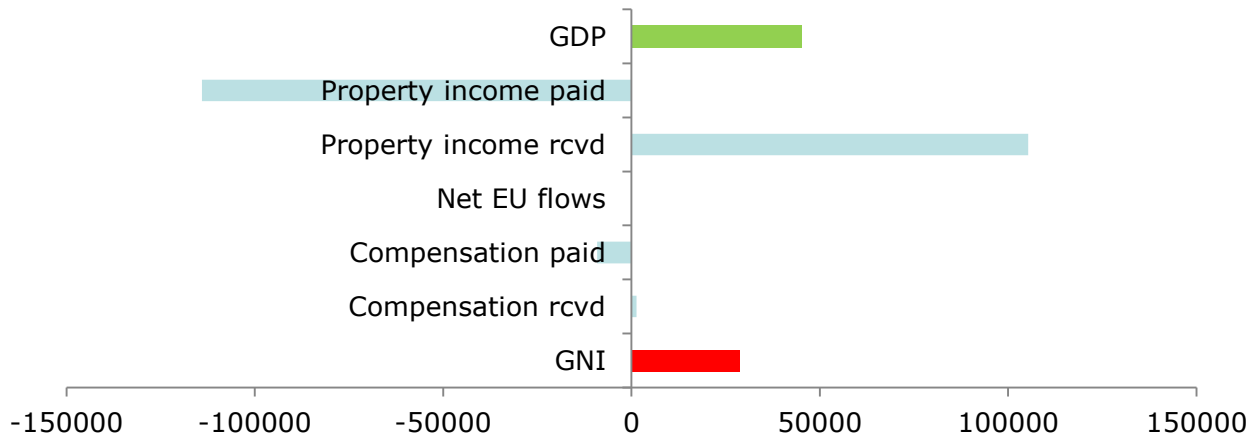


Is the difference real? A first answer: regional data (small chart on the right). Luxembourg not such an outlier in this respect.

GDP and GNI [John]

GNI takes account of some cross-border income flows (note enormous gross property income flows)

From GDP to GNI, Luxembourg, 2013 (EUR, m)



Impact of property income flows [Muriel]

Fine, but the estimate of cross-border property income is extremely challenging:

- *Very large flows*

Inflows 2013: **2.3 times** GDP! (3.7 times GNI)

Outflows: **2.5 times** GDP (4 times GNI)

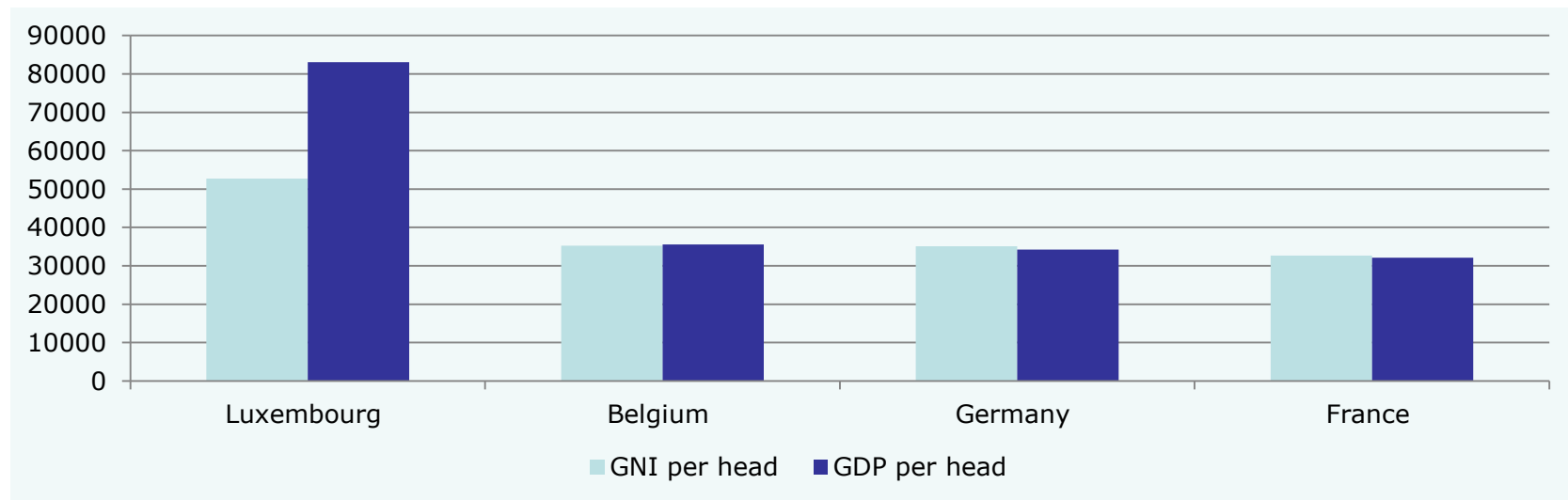
- *Risk of double or no counting*

*A small mistake on **gross** property income flows would have a large impact on the estimated GNI.*

*Ex: 1% "mistake" on gross inflows and opposite one on gross outflows would make **8% on GNI...***

GNI per capita [Muriel]

This changes the pattern (EUR 52 750 per head instead of EUR 83 050 in 2013), but Luxembourg still looks like an outlier with GNI...



This does not take into account high living costs in Luxembourg

Impact of prices – Purchasing power [John]

Luxembourg is relatively expensive compared to other countries (lower purchasing power of a EUR; 7% against BE/FR, 15% DE, 21% against EU28)

- **Further narrows the gap on GNI per capita**

Main areas of difference:

Housing (50% higher than EU average)

Food and non-alcoholic beverages (19% higher than EU average)

Distributional issues [Muriel]

So we have GNI per head: EUR 43 500 per head in purchasing power standards (PPS). But this is an *average*... , not really representative of the "median Luxembourger".

Look at work from INSEE (impact of various items in 2012):

4. Montants moyens des prélèvements et prestations par unité de consommation en 2012

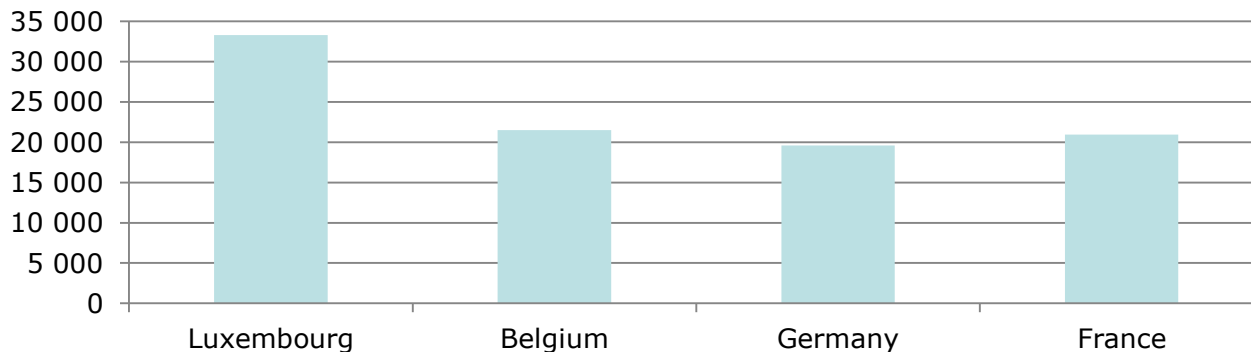
en euros par U

	Fractiles de niveau de vie avant redistribution ¹							Ensemble
	D1	Q1	Q2	Q3	Q4	Q5	D10	
Revenu avant redistribution (A)	4 128	7 266	15 591	21 474	28 623	55 292	72 195	25 649
Prélèvements	- 165	- 333	- 1 010	- 2 066	- 3 501	- 10 707	- 15 886	- 3 523
Financement de la protection sociale	- 209	- 369	- 857	- 1 420	- 2 073	- 4 304	- 5 716	- 1 804
Cotisations sociales ²	- 101	- 196	- 457	- 763	- 1 146	- 2 195	- 2 819	- 951
Contributions sociales	- 108	- 173	- 400	- 657	- 927	- 2 109	- 2 898	- 853
Impôt directs	45	36	- 154	- 646	- 1 427	- 6 404	- 10 170	- 1 719
Impôt sur le revenu (y c. PPE et crédits d'impôt)	76	103	71	- 295	- 971	- 5 735	- 9 409	- 1 365
Taxe d'habitation	- 32	- 67	- 225	- 351	- 456	- 669	- 761	- 354
Prestations	5 985	4 332	1 266	736	480	335	345	1 430
Prestations familiales	1 925	1 575	775	560	396	285	298	718
Allocations familiales	881	737	387	292	236	244	264	379
Autres prestations familiales ³	1 044	839	388	268	160	42	34	339
Aides au logement	1 831	1 350	273	77	38	18	18	351
Minima sociaux⁴	2 229	1 406	218	100	46	31	29	360
Revenu disponible (B)	9 948	11 266	15 847	20 145	25 602	44 919	56 654	23 556
Taux de redistribution (B-A)/A	141,0	55,0	1,6	- 6,2	- 10,6	- 18,8	- 21,5	- 8,2

Distributional issues [John]

Data from income and living surveys shows median incomes – Luxembourg remains significantly higher

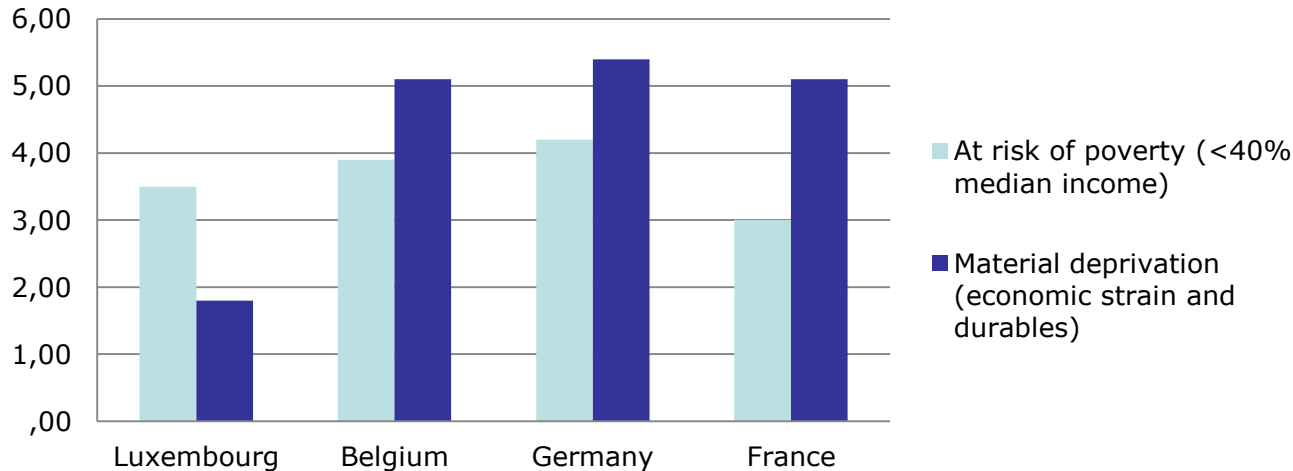
Median net income, 2013, EUR/head



Poverty [John]

A different picture between relative and absolute poverty measures

Poverty and material deprivation, % of population



Depreciation [Muriel]

*GNI or median income are not the end of the story: these are **gross** concepts, including depreciation (the "consumption of fixed capital"), which is not a real source of prosperity.*

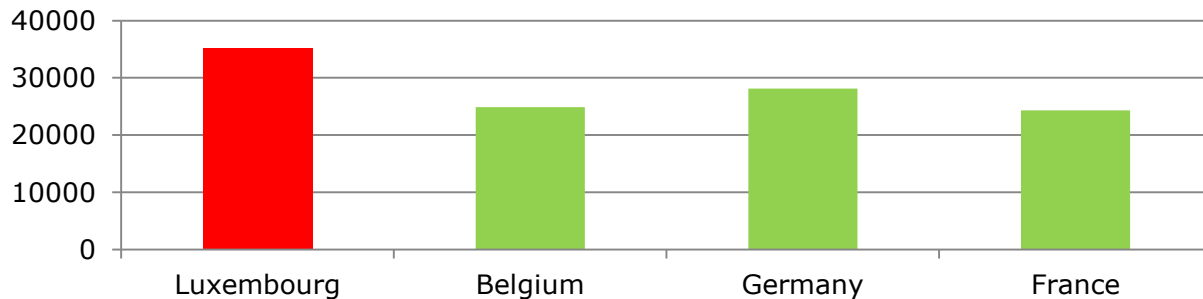
According to STATEC, in 2013 the consumption of fixed capital accounted for 5.5 EUR billion in Luxembourg, namely 10 100 EUR per head.

*This leaves EUR 35 150 per head at PPS for the **NNI** in Luxembourg (minus 19% compared to the **GNI** at PPS).*

Comparative depreciation impact [John]

Correct, but does not change the relative position of Luxembourg much...

NNI, EUR/head at PPS



“Well-being” and sustainability

[Muriel]

*What about the **environment**: there is also “capital” depletion in this respect (e.g. pollution, carbon dioxide, etc.).*



Environmental accounts [John]

A “satellite” account that extends national accounts concepts

Takes data on depletion of natural resources / pollution **in addition to** traditional depreciation

Available now: material flows, air emissions, energy, waste

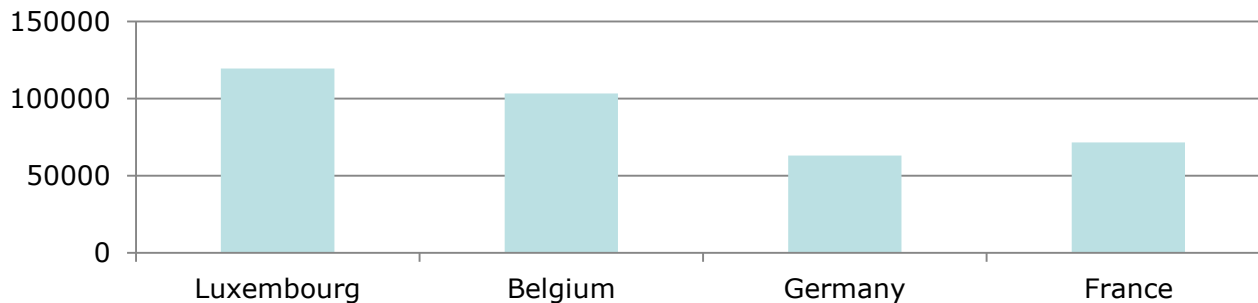
- For example, Luxembourg looks higher on CO2 emissions per head than BE, FR, DE but question on data interpretation (cross-border)

To come: Resource balance sheets; environmental assets

Balance sheets [John]

Consider household stocks of (financial) wealth

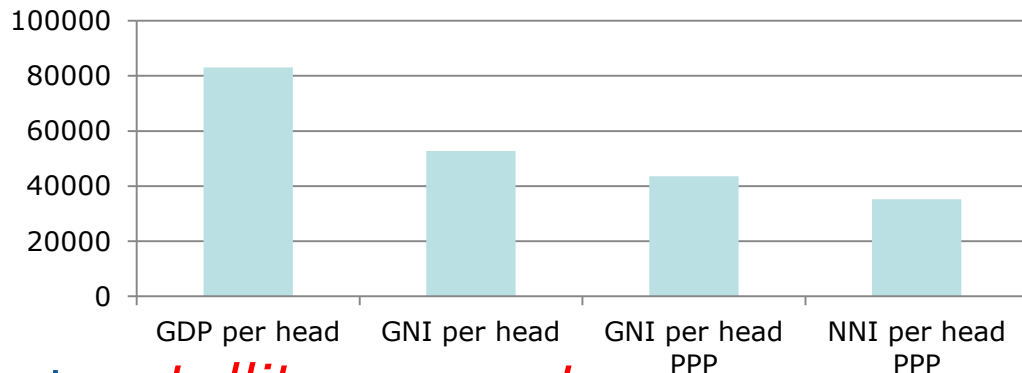
Household financial assets, Q3/2014, EUR/Person



Does not include housing wealth – indications that Luxembourg significantly higher dwellings per head, but mixed data

Concluding remarks [Muriel]

With existing data one can go quite far to address some criticisms. Ex. of Luxembourg, 2013:



+ *satellite accounts.*

But room to improve further in the future.

Importance of communication to users.

Concluding remarks [Muriel & John]

National accounting evolves slowly in order to ensure comparability and robustness.

On the other hand, "the world is moving faster and faster" (financial flows, etc.) and more interest in broad well-being/sustainability measures.

Is it a risk for national accounts? How could we solve this trade-off?

idea



Thank you for your attention