

# **W**ORKSHOP ON LABOUR COST STATISTICS

Document for Item 3.1 of the agenda

# Topic 3 Plausibility and consistency checks

5-6 May 2015 ISTAT, Roma **Summary:** the main objective of this document is to provide the members of the Labour Costs Workshop (LCW) an overview of the plausibility and consistency checks conducted by Eurostat in comparing data of the last two vintages of LCS (2012 and 2008) as well as with other sources, mainly: National Accounts (NA), the Labour Cost Index (LCI) and the Labour Force Survey (LFS). This should pave the way for further quality improvements in view of LCS 2016.

#### I. BACKGROUND

The Labour Cost Survey is an important source of information on costs and volumes of the labour input. The main variables in this regard are the **hourly labour cost** and **number of hours worked**.

Both variables have been analysed in the context of the LCS 2012 publications: a News Release<sup>1</sup> has been issued together with 2 Statistics Explained articles<sup>2</sup> that focused on the 2012 levels and 2012/2008 changes, respectively.

Whereas 2012 levels provided useful information on the structure of labour costs across countries, the analysis of 2012/2008 changes shed light on developments during the 4 first years of the recession.

Moreover, these analyses were also an opportunity to assess the plausibility of the data through comparisons across countries and with other sources. In particular, information on the 2012/2008 changes in the total number of hours worked was unfortunately found not reliable enough to be commented in the news release.

This document report on these findings with the aim to improve further the quality of labour cost data in view of LCS 2016. The analysis of 2012/2008 developments across sources proved particularly useful as, unlike levels, changes are not much impacted by conceptual differences.

To assess the plausibility of LCS data, they were compared with National Accounts (NA), Labour Cost Index (LCI) and Labour Force Survey (LFS) sources, as relevant.

In the first part of this document, the **number of hours worked** is analysed first in terms of *2012 levels* then as regards the *2012/2008 developments*. When other sources do not provide information on the number of hours worked, the variable 'number of employees' is used as a proxy of 2012/2008 changes.

In the second part of the document, the plausibility of **hourly labour costs** is assessed against NA data in terms of *2012/2008 changes*.

<sup>2</sup> Labour cost structural statistics – changes and <u>Labour cost structural statistics – levels</u>

<sup>&</sup>lt;sup>1</sup> Labour costs highest in the financial and insurance sector

#### II. NUMBER OF HOURS WORKED AND NUMBER OF EMPLOYEES

#### 2.1 Levels

The plausibility of the number of hours worked and the number of employees was analysed first in terms of structure, comparing the share of hours worked in LCS and NA by economic sector as a proportion of the national total (annex 1) for both years 2008 and 2012.

In 2008, 4 countries (**DE, EL, FR** and **SK**) had discrepancies of more than 5 p.p. between LCS and NA for the Manufacturing sector (considered to be one of the biggest sectors in most of the countries), in 2012 these were reduced to 2 (**DE** and **SK**).

Sizeable gaps were also recorded for the Wholesale and retail sector (NACE G) in **PT** and **SK** in 2008 and 2012 whereas other important discrepancies were spotted in 2008 for Construction (NACE F) in **EL**, Administration and support service activities (NACE N) in **FI** and Education (NACE P) in the **UK**.

As regards the public sector (NACE O, being optional in LCS) for those countries in which data was available in 2008 and 2012, no discrepancies were observed in 2008 whereas 3 countries (IT, CY and PT) had wider gaps compared to NA data in 2012. A relatively wide gap was also observed for BE in 2012 within the Human health and social work activities (NACE Q).

The above-mentioned countries are invited to comment on the large differences found between the LCS and NA structure of their economies, for the manufacturing and public sectors, as relevant.

#### 2.2 2012/2008 changes

Being aware that the Labour Cost survey (LCS) may not be exactly comparable with other sources such as National Accounts (NA) due to differences in scope (LCS capturing data for enterprises with 10 employees or more and all economic sectors except public administration and defence; compulsory social security, agriculture, forestry and fishing whereas NA refers to the whole economy, including black-economy), it is more meaningful to compare the differences in the growth rates (2012/2008) of the total number of hours worked by all employees in both LCS and NA than the differences in levels between the two sources.

As shown in table 1, despite differences between the two sources, the growth rates in the total hours worked in LCS and NA seem to follow similar trends over the 2008 to 2012 period. As a maximum threshold, differences up to 2 percentage points (p.p.) in the annual growth rates between the two were considered to be acceptable.

Nonetheless, whereas the majority of EU countries recorded differences below the threshold, wider discrepancies were observed for **BE, DE, CY, LU** and **SK**.

Table 1: Annual growth (2012/2008) in total hours worked in LCS and National Accounts

Belgium 3,4 Bulgaria 2,7 Czech Republic 5,7 Denmark 2,7 Germany 34,7 Estonia 1,7 Greece 2,7 Spain 13,7 France* 16,7 Croatia 1,7 Italy 14,7 Cyprus 2 Latvia 1,7 Luxembourg 4	830,791,960 769,051,294 150,480,653 324,689,815 183,222,524 628,172,016 737,529,382 495,033,402	NA2012 4,688,100 3,666,780 6,571,071 3,299,681 44,206,000	3,179,647,654 3,236,766,693 5,473,051,595 2,659,866,583	NA2008 4,638,300 4,242,839 6,673,299	4.77% -3.83%	NA 0.27% -3.58%	Difference in p.p. 4.50
Bulgaria 2, Czech Republic 5, Denmark 2, Germany 34, Estonia Ireland 1, Greece 2, Spain 13, France* 16,6 Croatia 1, Italy 14, Cyprus Latvia Lithuania 1, Luxembourg	769,051,294 150,480,653 324,689,815 183,222,524 628,172,016 737,529,382	3,666,780 6,571,071 3,299,681 44,206,000	3,236,766,693 5,473,051,595	4,242,839	-3.83%		
Czech Republic 5,  Denmark 2,  Germany 34,  Estonia 1,  Greece 2,  Spain 13,  France* 16,  Croatia 1,  Italy 14,  Cyprus 2  Latvia 5,  Lithuania 1,  Luxembourg 4,	150,480,653 324,689,815 183,222,524 628,172,016 737,529,382	6,571,071 3,299,681 44,206,000	5,473,051,595			-3.58%	
Denmark 2,3 Germany 34, Estonia 1,3 Ireland 1,7 Greece 2,4 Spain 13,4 France* 16,4 Croatia 1,4 Italy 14,7 Cyprus Latvia 9 Lithuania 1,4 Luxembourg 4	324,689,815 183,222,524 628,172,016 737,529,382	3,299,681 44,206,000		6,673,299			-0.24
Germany 34, Estonia Ireland 1, Greece 2, Spain 13, France* 16, Croatia 1, Italy 14, Cyprus Latvia Lithuania 1, Luxembourg	183,222,524 628,172,016 737,529,382	44,206,000	2,659,866,583		-1.51%	-0.39%	-1.12
Estonia Ireland Ireland 1, Greece 2,4 Spain 13,4 France* 16,4 Croatia 1,4 Italy 14,7 Cyprus Latvia Lithuania 1,4 Luxembourg	628,172,016 737,529,382		1	3,531,841	-3.31%	-1.69%	-1.63
Ireland 1, Greece 2, Spain 13, France* 16, Croatia 1, Italy 14, Cyprus Latvia 9 Lithuania 1, Luxembourg 4	737,529,382		30,578,493,139	43,160,000	2.83%	0.60%	2.22
Greece         2,           Spain         13,           France*         16,           Croatia         1,           Italy         14,           Cyprus         2           Latvia         9           Lithuania         1,           Luxembourg         4		904,833	723,237,827	1,047,508	-3.46%	-3.59%	0.13
Spain 13, France* 16,6 Croatia 1,4 Italy 14, Cyprus 2 Latvia 9 Lithuania 1,4 Luxembourg 4	405 033 402	2,490,275	2,092,383,145	2,905,330	-4.54%	-3.78%	-0.76
France* 16,0 Croatia 1,4 Italy 14,7 Cyprus 2 Latvia 1,4 Lithuania 1,4 Luxembourg 4	TJU,UUU,4UZ	:	2,284,548,795	5,197,636	2.23%	:	:
Croatia 1, Italy 14, Cyprus 2 Latvia 9 Lithuania 1, Luxembourg 4	476,428,783	:	16,573,522,778	25,127,260	-5.04%	:	:
Italy 14, Cyprus 2 Latvia 4 Lithuania 1, Luxembourg 4	657,975,140	30,253,249	17,610,776,345	30,791,418	-1.38%	-0.44%	-0.94
Cyprus 2 Latvia 5 Lithuania 1,4 Luxembourg 4	488,387,514		1,688,207,342		-3.10%	:	:
Latvia 5. Lithuania 1,4 Luxembourg	742,427,730	24,547,351	16,131,730,941	26,010,068	-2.23%	-1.44%	-0.79
Lithuania 1,4	293,731,584	404,333	282,373,245	432,651	0.99%	-1.68%	2.67
Luxembourg	945,102,649	1,309,521	1,236,038,565	1,673,721	-6.49%	-5.95%	-0.54
	424,657,460	1,861,349	1,704,455,304	2,285,695	-4.38%	-5.00%	0.62
Hungary 24	492,918,672	494,884	437,371,167	481,346	3.03%	0.70%	2.34
Hungary 3,0	633,259,767	:	3,815,779,953	:	-1.22%	:	••
Malta	233,999,094	:	235,965,685	••	-0.21%	:	
Netherlands 7,9	926,153,944	9,055,628	8,101,143,825	9,326,207	-0.54%	-0.73%	0.19
Austria 3,6	670,032,019	5,187,624	3,882,630,190	5,200,148	-1.40%	-0.06%	-1.34
Poland 12,3	339,407,100	21,723,956	13,485,318,300	22,359,416	-2.20%	-0.72%	-1.48
Portugal 3,3	375,092,795	:	4,114,920,467	7,208,254	-4.83%	:	:
Romania 6,0	661,796,481	:	7,434,016,992	11,482,594	-2.70%	:	:
Slovenia	881,096,392	1,049,070	989,455,169	1,239,108	-2.86%	-4.08%	1.22
Slovakia 1,	743,000,949	2,813,941	2,030,939,335	2,852,872	-3.75%	-0.34%	-3.41
Finland 2,3	383,392,226	3,164,300	2,494,678,631	3,231,400	-1.13%	-0.52%	-0.61
Sweden 4,9	956,632,798	:	4,703,774,452	:	1.32%	:	:
United Kingdom 39,3	339,552,998	38,834,536	38,188,564,741	38,649,884	0.75%	0.12%	0.63
Iceland	158,421,983	:	190,951,197	:	-4.56%	:	:
Norway 2,0	062,143,813	:	:	3,406,000	:	:	:
Switzerland 5,0	009,584,094	:	:	:	:	:	:
FYROM	529,558,590	:	:	:	:	:	:
	871,286,733	:	:	:	:	:	:
	698,303,440	:					
Bosnia and Herzegovina *France: scope restricted to	555,555,770	<u>.                                      </u>	<u>.                                    </u>	· .	<u> </u>		

Considering the differences in the annual growth rates of the number of employees in LCS, LFS and NA data, we highlighted countries where the difference in the growth rate of LCS exceeded by 2p.p. or more that of either NA or LFS whereas the gap between NA and LFS was less than 2p.p (table 2). This is supposed to indicate possible quality issues in LCS while alternative sources are consistent.

Table 2: Differences in annual growth rates (2012/2008) of the number of employees in LCS, LFS, NA

	Annı	ual growth r	ates	Differenc	es between s	sources						
	LCS	NA	LFS	LCS_NA	LCS_LFS	NA_LFS	LCS >2p.p. with LFS <u>OR</u> NA	NA < 2p.p. with LFS	Both cases TRUE			
Belgium	6.05%	0.44%	0.79%	-5.61	-5.26	-0.35	TRUE	TRUE	TRUE			
Bulgaria	-3.15%	-2.46%	-1.22%	0.68	1.93	-1.25	FALSE	TRUE	FALSE			
Czech Republic	-1.65%	-0.63%	0.06%	1.02	1.70	-0.68	FALSE	TRUE	FALSE			
Denmark	-3.34%	-1.47%	0.70%	1.87	4.05	-2.18	TRUE	FALSE	FALSE			
Germany	3.66%	0.81%	-0.59%	-2.85	-4.25	1.40	TRUE	TRUE	TRUE			
Estonia	-3.67%	-1.41%	-0.46%	2.27	3.21	-0.94	TRUE	TRUE	TRUE			
Ireland	-3.46%	-3.31%	0.59%	0.14	4.05	-3.91	TRUE	FALSE	FALSE			
Greece	2.21%	-4.66%	-0.24%	-6.87	-2.45	-4.42	TRUE	FALSE	FALSE			
Spain	-4.22%	-3.90%	0.25%	0.32	4.47	-4.15	TRUE	FALSE	FALSE			
France*	1.12%	-0.22%	0.45%	-1.35	-0.67	-0.68	FALSE	TRUE	FALSE			
Croatia	-2.23%	-2.57%	0.77%	-0.34	3.00	-3.34	TRUE	FALSE	FALSE			
Italy	-1.12%	-0.39%	0.51%	0.73	1.63	-0.90	FALSE	TRUE	FALSE			
Cyprus	0.15%	-0.74%	2.70%	-0.88	2.55	-3.44	TRUE	FALSE	FALSE			
Latvia	-5.33%	-4.82%	-1.83%	0.51	3.50	-2.99	TRUE	FALSE	FALSE			
Lithuania	-4.05%	-4.19%	-1.55%	-0.14	2.50	-2.64	TRUE	FALSE	FALSE			
Luxembourg	3.73%	2.02%	2.83%	-1.70	-0.90	-0.81	FALSE	TRUE	FALSE			
Hungary	-0.95%	0.30%	-0.08%	1.25	0.87	0.38	FALSE	TRUE	FALSE			
Malta	-1.62%	1.54%	0.90%	3.16	2.51	0.64	TRUE	TRUE	TRUE			
Netherlands	-0.14%	-0.41%	0.66%	-0.27	0.81	-1.07	FALSE	TRUE	FALSE			
Austria	-0.74%	:	0.57%	•	1.31	:	:	:	:			
Poland	-1.47%	-0.16%	-0.27%	1.30	1.20	0.10	FALSE	TRUE	FALSE			
Portugal	-4.09%	-2.55%	0.07%	1.54	4.16	-2.62	TRUE	FALSE	FALSE			
Romania	-2.50%	-0.99%	-0.15%	1.51	2.35	-0.84	TRUE	TRUE	TRUE			
Slovenia	-2.53%	-1.76%	0.14%	0.76	2.67	-1.91	TRUE	TRUE	TRUE			
Slovakia	-3.55%	-1.53%	0.20%	2.02	3.75	-1.73	TRUE	TRUE	TRUE			
Finland	-1.41%	-0.55%	0.60%	0.86	2.02	-1.16	TRUE	TRUE	TRUE			
Sweden	0.94%	0.39%	-1.83%	-0.55	-2.78	2.22	TRUE	FALSE	FALSE			
United Kingdom	0.76%	-0.33%	0.71%	-1.10	-0.05	-1.04	FALSE	TRUE	FALSE			
Iceland	-2.17%	:	0.10%	:	2.27	:	:	:	:			
Norway	2.00%	0.83%	1.68%	-1.17	-0.32	-0.85	FALSE	TRUE	FALSE			
Switzerland	:	1.24%	1.26%	:	:	-0.02	:	TRUE	:			
FYROM	:		0.61%	:	:	:	:	:	:			
Turkey	:	:	1.87%	:	:	:	:	:	:			
*France: scope restricted	d to NACE I	Rev. 2 B to		nited coverac	ge in LCS (20	08 excludir	ng P)					

Countries like **BE, DE, EE, MT** and **SK** have discrepancies greater than 2p.p. in the growth rate of LCS compared to both LFS and NA, when the difference in the growth rate of LFS compared to NA is of less than 2p.p.

Similarly, the growth rates in the number of employees in LCS for **RO**, **SI** and **FI** are close to the ones in NA, but yet greater by more than 2p.p than those in LFS when the discrepancy between NA and LFS is of less than 2p.p. This indicates possible quality issues in either LCS or LFS.

There was no case were LCS data were close to LFS but sizeably different from NA data.

Other cases worth further investigation (at least within LCS) are those for EL (compared to NA) and DK, ES, HR, LV and PT (compared to LFS) in which despite passing the criteria when compared to NA and LFS (and gap between NA and LFS is less than 2p.p.) differences with either NA or LFS still exceed 3p.p.

Countries concerned are asked to investigate further the possible causes of such discrepancies at national level and where feasible and relevant try to improve, with the aim of reducing such discrepancies in the next data collection of LCS (2016).

#### **III. HOURLY LABOUR COSTS**

In this part, we compare the annual growth rates (2012/2008) of the **hourly labour cost** in National Currency (NAC), split by wage / non-wage components between the LCS, LCI and NA (tables 3 and 4).

Whereas table 3 shows the actual annual growth rates in the hourly labour cost of the three sources, table 4 shows the differences in percentage points (p.p.) between the growth rates of LCS compared to those in LCI and NA.

The wage costs in LCS and LCI contain the same cost categories (variable D12) in both sources, whereas the non-wage costs in LCS include vocational training costs (variable D2) and other expenditure (variable D3), which are missing in the annual LCI and NA data. Nonetheless, one should expect that the evolution between the two follow similar trends.

# 3.1 Total hourly labour costs

For the total hourly labours costs, large (> 2 p.p.) discrepancies are observed for **HR, MT** and **PT**. In **MT**, LCS growth is lower than for the LCI whereas it is the reverse for the other 2 countries. However, in all these cases, LCS data are consistent with NA developments indicating a possible quality issue in the LCI.

LCS/NA sizeable divergences are recorded in 4 countries, namely: **CY, LT, RO** and **SK** with LCS growth higher in 2 of them (**RO** and **SK**) and lower in the other two (**CY** and **LT**).

Finally, LCI/NA important discrepancies are recorded in the following 7 countries: CZ, HR, LT, HU, MT, RO and SI. In the case of HR and MT, the LCI departs from the other 2 statistics. As for LT and RO, it is the NA data that are not in line with labour costs statistics. Finally, in the case of CZ, HU and SI, LCI/NA data are not consistent with each other, meaning that LCI data are not considered as reliable sources for NA purposes, whereas LCS data stays in the middle of the LCI/NA interval.

## 3.2 Wage / non-wage split

As shown in table 4, the further we split the components of labour cost, the bigger the discrepancies we observe when comparing growth rates between sources.

As wages represent the biggest share of total labour costs, LCS/NA/LCI discrepancies in hourly wages broadly reflect what was already observed for the total hourly labour costs. The exceptions are: **SK** (LCS/LCI); **HU** (LCS/NA) and both **HU** and **SI** for LCI/NA comparisons.

As regards non-wage hourly costs, it must be noted that **EL, PL, RO** and **SI** exhibit sizeable differences among the 3 sources (LCS/LCI/NA) compared.

In the case of **MT**, LCS data depart from the other two. In the case of **SE**, LCI data are not consistent either with NA or LCS. Finally, NA data are not consistent with either LCS or LCI for: **CY, LV, LU, HU** and **SK**.

Table 3: annual hourly growth rates in LCS, LCI and NA split by wage / non-wage costs

	LCS labour cost	LCS wage costs	LCS non- wage costs	LCI labour cost	LCI wages	LCI non- wage costs	<b>NA</b> labour cost	<b>NA</b> wages	NA non- wage costs
Belgium	3.70%	3.49%	4.21%	3.14%	3.09%	3.27%	2.49%	2.29%	3.04%
Bulgaria	7.54%	8.41%	3.36%	7.33%	8.10%	3.74%	7.59%	8.37%	3.51%
Czech Republic	2.39%	2.41%	2.37%	3.80%	3.82%	3.75%	1.36%	1.44%	1.14%
Denmark	3.26%	3.01%	5.01%	2.53%	2.46%	3.02%	2.55%	2.44%	3.79%
Germany	2.23%	2.16%	2.52%	2.50%	2.41%	2.86%	2.27%	2.34%	1.92%
Estonia	2.22%	2.18%	2.43%	1.71%	1.55%	2.21%	3.38%	3.23%	3.86%
Ireland	0.96%	1.10%	0.11%	0.13%	0.22%	-0.51%	-0.46%	-0.60%	1.52%
Greece	-1.65%	-2.42%	1.32%	-2.70%	-2.50%	-3.29%	-1.80%	-1.95%	-1.29%
Spain	2.18%	2.26%	1.97%	2.01%	1.94%	2.19%	1.29%	1.03%	2.22%
France*	2.26%	2.00%	2.77%	2.38%	2.17%	2.84%	2.39%	2.17%	2.99%
Croatia	1.89%	2.04%	1.07%	-0.18%	-0.18%	-0.16%	2.32%	2.23%	2.97%
Italy	2.34%	2.32%	2.37%	2.38%	2.34%	2.49%	1.99%	2.03%	1.87%
Cyprus	0.10%	-0.18%	1.55%	1.12%	0.91%	2.36%	2.61%	2.00%	6.65%
Latvia	0.12%	0.23%	-0.14%	0.33%	0.49%	-0.28%	0.15%	-0.28%	2.91%
Lithuania	0.00%	-0.03%	0.07%	-0.35%	-0.47%	-0.02%	2.36%	2.58%	1.55%
Luxembourg	2.21%	2.31%	1.67%	2.88%	3.09%	1.74%	3.85%	3.62%	5.23%
Hungary	2.01%	3.67%	-2.34%	2.26%	3.38%	-1.10%	0.24%	1.51%	-4.49%
Malta	0.82%	1.15%	-3.26%	4.13%	4.22%	3.14%	1.88%	1.88%	1.83%
Netherlands	2.49%	2.23%	3.32%	2.01%	1.86%	2.62%	1.92%	1.63%	2.93%
Austria	3.00%	2.89%	3.37%	3.67%	3.48%	4.34%	2.70%	2.62%	3.06%
Poland	5.20%	4.99%	6.13%	3.80%	4.18%	2.30%	5.38%	4.96%	8.35%
Portugal	2.16%	1.99%	2.90%	-1.23%	-1.27%	-1.09%	0.65%	:	:
Romania	4.52%	4.65%	4.10%	6.10%	6.08%	6.19%	-1.10%	-1.07%	-1.27%
Slovenia	2.91%	3.25%	1.12%	1.69%	2.29%	-1.75%	4.15%	3.98%	5.35%
Slovakia	4.98%	4.92%	5.13%	3.18%	2.88%	4.12%	2.41%	2.57%	1.84%
Finland	3.75%	3.94%	3.09%	3.30%	3.45%	2.73%	2.65%	2.93%	1.49%
Sweden	1.62%	2.05%	0.71%	2.90%	2.68%	3.43%	2.20%	2.73%	0.51%
United Kingdom	1.33%	0.99%	3.24%	1.25%	1.24%	1.30%	1.87%	1.38%	4.45%
*France: scope restr	icted to NA	CE B-N due	to limited	coverage	in LCI and	missing N	ACE P in LCS	S 2008	

Table 4: differences in hourly labour cost growth rates (2012/2008) between LCS, LCI and NA

		labour cos	st	v	age costs		no	n-wage co	sts												
	LCS/LCI	LCS/NA	LCI/NA	LCS/LCI	LCS/NA	LCI/NA	LCS/LCI	LCS/NA	LCI/NA												
Belgium	0.56%	1.21%	0.65%	0.40%	1.20%	0.79%	0.94%	1.18%	0.24%												
Bulgaria	0.21%	-0.05%	-0.26%	0.31%	0.04%	-0.27%	-0.38%	-0.15%	0.23%												
Czech Republic	-1.41%	1.03%	2.44%	-1.41%	0.97%	2.39%	-1.38%	1.22%	2.61%												
Denmark	0.73%	0.71%	-0.02%	0.55%	0.58%	0.03%	1.99%	1.22%	-0.77%												
Germany	-0.27%	-0.03%	0.24%	-0.25%	-0.19%	0.06%	-0.35%	0.60%	0.94%												
Estonia	0.51%	-1.16%	-1.67%	0.63%	-1.05%	-1.68%	0.23%	-1.42%	-1.65%												
Ireland	0.83%	1.42%	0.58%	0.88%	1.70%	0.82%	0.63%	-1.40%	-2.03%												
Greece	1.05%	0.15%	-0.90%	0.09%	-0.47%	-0.55%	4.61%	2.60%	-2.00%												
Spain	0.18%	0.89%	0.72%	0.32%	1.23%	0.91%	-0.22%	-0.23% -1.90%	-0.02%												
France*	-0.12%	-0.13%	-0.01%	-0.16%	-0.17%	-0.01%	-0.07% 1.23% -0.12%		-0.15% -3.13% 0.62%												
Croatia	2.07%	-0.43%	-2.50%	2.22%	-0.19%	-2.41%															
Italy	-0.05%	0.35%	0.40%	-0.03%	0.29%	0.32%															
Cyprus	-1.02%	-2.51%	-1.49%	-1.09%	-2.18%	-1.09%	-0.81%	-5.09%	-4.28%												
Latvia	-0.21%	-0.03%	0.18%	-0.26%	0.51%	0.77%	0.14%	-3.05%	-3.19%												
Lithuania	0.35%			-2.36%	-2.70%	0.44%	-2.61%	-3.05%	0.09%	-1.48%	-1.57%										
Luxembourg				-0.67%	-0.67%	-0.67%	-0.67%	-0.67%	-0.67%	-0.67%	-0.67%	-0.67%	-0.67%	-0.67%	-0.67%	-0.67%	-1.64%	-0.97%	-0.78%	-1.31%	-0.52%
Hungary	-0.25%	1.77%	2.02%	0.30%	2.16%	1.87%	-1.24%	2.15%	3.39%												
Malta	-3.30%	-1.06%	2.24%	-3.07%	-0.73%	2.34%	-6.40%	-5.09%	1.31%												
Netherlands	0.48%	0.57%	0.09%	0.37%	0.60%	0.24%	0.70%	0.39%	-0.32%												
Austria	-0.66%	0.30%	0.96%	-0.59%	0.27%	0.86%	-0.97%	0.30%	1.28%												
Poland	1.39%	-0.19%	-1.58%	0.82%	0.04%	-0.78%	3.83%	-2.21%	-6.04%												
Portugal	3.39%	1.51%	-1.88%	3.25%	:	:	3.98%	:	:												
Romania	-1.58%	5.62%	7.20%	-1.43%	5.72%	7.15%	-2.09%	5.37%	7.47%												
Slovenia	1.22%	-1.24%	-2.46%	0.96%	-0.73%	-1.69%	2.87%	-4.23%	-7.10%												
Slovakia	1.80%	2.56%	0.77%	2.03%	2.34%	0.31%	1.02%	3.29%	2.27%												
Finland	0.45%	1.10%	0.65%	0.50%	1.01%	0.52%	0.36%	1.61%	1.24%												
Sweden	-1.28%	-0.58%	0.70%	-0.63%	-0.68%	-0.04%	-2.71%	0.21%	2.92%												
United Kingdom	0.08%	-0.54%	-0.62%	-0.25%	-0.39%	-0.14%	1.94%	-1.20%	-3.15%												
*France: scope rest	ricted to N	IACE B-N d	ue to limited	d coverage i	n LCI and n	nissing NA	CE P in LCS	2008													

#### **IV. CONCLUSIONS**

In this document, we have analysed a selection of LCS variables that were deemed most important for users, namely the volume of hours (total number of hours worked) and hourly labour costs.

These variables were analysed in terms of 2012 levels and 2012/2008 changes and compared with alternative sources namely: LCI, LFS and NA.

While one should not deviate from respecting the EU legal basis in any of the sources in subject, it would be advisable that countries conduct such cross-domain checks internally before transmitting their LCS 2016 data to Eurostat.

Eurostat will also run these checks independently and report cases of implausible data to the countries concerned before publishing LCS 2016 results.

### The participants to the workshop are invited to:

- Comment on the representativeness issues found in their LCS 2012 data as regards the number of hours worked by NACE section;
- Comment on the discrepancies highlighted with regard to LCS 2012 / 2008 changes compared to other sources and inform of any methodological improvements that are planned in view of LCS 2016 or in the field of LCI/NA when relevant.

Annex 1: Differences between LCS and NA share of hours worked by economic sector as a proportion of the national total, 2008 and 2012

2008	В	С	D	E	F	G	Н	ı	J	K	L	М	N	O**	Р	Q	R	S
BE	:	0.1%	:	0.2%	-1.3%	-2.2%	-0.8%	:	:	0.2%		:	-1.9%	:	4.8%	4.1%	0.0%	-0.7%
BG	0.2%	0.4%	0.4%	0.3%	-0.6%	-3.2%	0.5%	-0.9%	0.6%	0.6%	-0.1%	-0.9%	1.0%	-3.9%	1.4%	0.8%	0.1%	-0.7%
CZ	0.2%	4.2%	0.1%	0.2%	-1.5%	-2.9%	0.5%	-1.4%	-0.1%	0.3%	-0.5%	-1.1%	1.2%	1.1%	0.9%	0.1%	0.1%	-0.2%
DK	0.0%	3.6%	0.0%	0.6%	-1.6%	-2.0%	0.0%	-1.0%	0.1%	0.0%	-0.5%	-0.2%	0.1%	-0.2%	1.1%	0.6%	-0.1%	-0.6%
DE	0.1%	6.0%	0.1%	0.1%	-2.2%	-1.2%	0.2%	-1.3%	0.3%	0.7%	-0.4%	-1.1%	0.8%	2.0%	-0.2%	0.4%	-0.7%	-1.5%
EE	0.1%	1.1%	-0.1%	0.3%	-3.6%	-0.7%	-0.1%	-1.1%	0.2%	0.5%	-0.6%	-0.4%	2.1%	0.9%	1.9%	1.4%	-0.1%	-1.1%
IE	-0.1%	1.0%	:	-0.4%	-2.9%	2.1%	0.4%	1.6%	0.2%	-0.1%	0.0%	-1.6%	1.1%	2.0%	0.1%	-0.2%	-0.4%	-0.8%
EL	0.0%	5.1%	1.3%	-0.2%	-5.1%	-4.4%	-0.3%	-1.3%	1.9%	0.1%	0.0%	-0.9%	-0.3%	:	3.9%	4.2%	-0.5%	-3.4%
ES	0.1%	2.6%	0.1%	0.4%	-2.5%	-0.5%	0.1%	-1.8%	0.6%	1.3%	-0.6%	-0.3%	2.4%	0.6%	-1.6%	1.2%	-1.1%	-0.3%
FR	0.1%	6.5%	0.0%	0.8%	-1.3%	-0.3%	2.3%	-1.2%	0.5%	1.6%	0.2%	1.0%	-3.0%	:	:	0.2%	-0.9%	-0.8%
HR	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
IT	0.1%	4.2%	0.2%	0.4%	-2.5%	-1.8%	1.0%	-3.6%	0.5%	0.9%	-0.2%	-1.1%	0.7%	:	2.6%	1.0%	-0.5%	-1.9%
CY	0.1%	3.5%	0.8%	-0.4%	-2.1%	-2.3%	1.0%	0.1%	1.1%	1.0%	-0.2%	-1.4%	-0.3%	-0.6%	1.8%	-0.2%	-0.8%	-1.8%
LV	0.0%	0.3%	0.2%	0.1%	-2.2%	-2.6%	-0.5%	-0.1%	0.0%	0.5%	0.3%	-0.9%	0.3%	2.3%	3.7%	1.0%	0.7%	-0.6%
LT	0.0%	-1.0%	0.0%	0.0%	-1.2%	-2.7%	1.0%	0.1%	-0.1%	0.2%	-0.2%	-0.2%	1.0%	1.3%	2.3%	1.0%	0.4%	-0.8%
LU	:	2.4%	:	-0.3%	0.3%	-1.2%	2.2%	-0.8%	0.7%	0.7%	:	-0.3%	:	:	-4.0%	0.7%	-0.4%	-0.8%
HU	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
MT	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
NL	0.0%	0.8%	0.0%	0.0%	-0.2%	-1.7%	0.1%	-0.2%	-0.1%	-0.1%	-0.2%	-0.9%	1.4%	1.1%	0.7%	0.7%	-0.1%	-0.3%
AT	0.1%	3.8%	0.2%	-0.1%	0.1%	0.6%	1.0%	-1.1%	-0.2%	0.7%	-0.1%	-0.9%	1.3%	:	-2.7%	-1.4%	-0.2%	-1.1%
PL	-0.1%	1.1%	0.4%	0.0%	-3.5%	0.3%	-0.2%	-0.8%	-0.1%	0.6%	0.6%	0.9%	0.9%	-2.8%	0.5%	0.6%	-0.3%	-1.0%
PT	0.0%	3.4%	0.1%	0.1%	-3.0%	-5.2%	0.4%	-2.8%	0.1%	1.1%	:	-1.5%	4.4%	4.1%	2.9%	1.8%	-0.2%	-1.1%
RO	0.2%	0.2%	-0.2%	1.0%	-0.2%	-3.9%	-1.2%	-0.3%	0.5%	0.9%	-0.6%	-1.0%	3.1%	3.0%	3.2%	0.5%	-0.5%	-1.8%
SI	0.1%	4.3%	0.3%	0.3%	-1.1%	-1.1%	-0.4%	-0.3%	0.1%	0.5%	-0.1%	-2.5%	-2.1%	1.0%	2.0%	0.5%	0.0%	-0.6%
SK	0.3%	5.4%	0.2%	0.2%	-1.1%	-5.9%	1.2%	-1.6%	-0.3%	0.4%	-0.1%	-0.5%	-0.8%	-2.0%	1.7%	0.3%	0.4%	0.3%
FI	-0.1%	2.5%	0.1%	0.0%	-2.4%	-4.3%	-1.2%	-1.2%	-0.1%	0.5%	0.0%	-0.4%	5.1%	-2.7%	1.1%	2.1%	-0.2%	-1.6%
SE	:	:	:	:	:	:	:	:		:	:	:	:	:	:	:	:	:
UK	0.1%	0.4%	0.1%	0.1%	-1.6%	-1.8%	0.2%	-0.3%	-0.5%	0.2%	-0.4%	-1.8%	-0.2%	-1.8%	6.7%	0.0%	-0.3%	-0.7%

2012	В	С	D	Е	F	G	Н	ı	J	K	L	M	N	O**	Р	Q	R	S
BE	0.0%	0.8%	0.2%	0.3%	-1.5%	-0.1%	-1.6%	-0.2%	-0.2%	-0.1%	-0.1%	-0.3%	-0.6%	:	-2.3%	5.6%	0.5%	-0.4%
BG	0.3%	1.8%	0.5%	0.4%	-1.1%	-4.2%	0.4%	-0.8%	0.6%	0.5%	-0.3%	-1.0%	1.2%	-4.1%	1.9%	0.9%	0.0%	-0.9%
CZ	0.2%	3.5%	0.1%	0.2%	-1.8%	-3.1%	0.5%	-1.5%	0.1%	0.3%	-0.6%	-1.2%	1.4%	1.4%	1.4%	0.7%	0.1%	-0.3%
DK	0.1%	1.8%	0.0%	0.0%	-2.2%	-2.5%	0.0%	-1.2%	0.2%	0.8%	-0.3%	-0.1%	1.0%	0.5%	1.5%	1.8%	-0.1%	-0.8%
DE	0.1%	5.7%	0.1%	0.2%	-2.2%	0.1%	-0.1%	-1.4%	0.1%	0.4%	-0.3%	-0.9%	0.8%	1.5%	-0.7%	0.2%	-0.6%	-1.4%
EE	:	1.4%	-0.6%	0.1%	-3.0%	-0.2%	-1.6%	-0.2%	0.4%	0.3%	-0.8%	-0.7%	2.7%	0.1%	1.9%	1.0%	-0.3%	-0.6%
IE	0.4%	1.1%	0.4%	-0.1%	-1.6%	2.4%	0.4%	0.4%	-0.6%	0.1%	-0.1%	-1.7%	1.8%	2.4%	-0.6%	-0.5%	-0.6%	-1.2%
EL	-0.1%	0.8%	0.2%	-0.3%	-1.3%	-3.0%	0.3%	1.0%	1.7%	0.8%	0.1%	-0.7%	-0.3%	:	3.8%	2.2%	-0.4%	-4.9%
ES	0.1%	2.2%	0.1%	0.3%	-3.9%	-0.1%	0.0%	-2.0%	0.9%	1.4%	-0.8%	0.1%	2.4%	-0.6%	-1.6%	3.0%	-1.3%	-0.5%
FR	0.0%	3.8%	0.3%	0.5%	-1.8%	-1.4%	1.7%	-1.4%	0.9%	1.0%	0.0%	-0.4%	-3.0%	3.8%	1.9%	0.5%	-1.2%	-1.6%
HR	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
IT	0.1%	4.9%	0.3%	0.6%	-2.7%	-1.5%	1.1%	-3.9%	0.5%	1.0%	-0.2%	-1.7%	0.9%	7.1%	0.9%	2.0%	-0.5%	-1.8%
CY	0.0%	2.3%	0.7%	-0.2%	-0.5%	-2.2%	1.4%	2.8%	1.3%	2.2%	-0.2%	0.8%	0.9%	-11.5%	-3.9%	-3.6%	-0.5%	-1.4%
LV	0.1%	-0.2%	0.4%	0.2%	-0.6%	-2.5%	0.2%	-0.3%	-0.3%	0.5%	0.1%	-1.6%	-1.3%	2.1%	3.8%	2.1%	0.4%	-0.9%
LT	0.0%	-0.2%	0.1%	0.2%	-0.5%	-1.9%	-0.1%	-0.1%	-0.5%	0.1%	-0.4%	-1.2%	0.5%	2.0%	2.5%	2.3%	0.3%	-1.2%
LU	0.0%	0.7%	0.0%	-0.4%	0.2%	-1.1%	1.6%	-0.8%	0.7%	0.6%	-0.4%	-0.3%	3.7%	:	-4.3%	1.2%	-0.5%	-0.8%
HU	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
MT	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
NL	0.0%	0.5%	0.1%	0.0%	-0.1%	-1.6%	0.5%	-0.1%	-0.2%	-0.1%	-0.1%	-0.9%	1.2%	1.1%	0.6%	0.8%	-0.1%	-0.4%
AT	0.1%	4.5%	0.3%	-0.2%	0.3%	0.6%	1.3%	-1.3%	0.2%	1.0%	-0.4%	-0.5%	1.0%	:	-3.2%	-3.0%	0.0%	-0.6%
PL	0.1%	0.8%	0.2%	0.4%	-3.6%	-0.2%	-0.8%	-1.1%	-0.1%	0.5%	0.6%	0.1%	-0.1%	-2.0%	1.4%	2.8%	0.0%	-1.0%
PT	-0.1%	4.2%	-0.1%	-0.1%	-4.5%	-5.5%	-0.6%	-3.0%	0.4%	1.2%	-0.5%	-1.4%	3.0%	5.5%	3.9%	4.3%	-0.2%	-1.0%
RO	0.2%	-0.2%	-0.4%	0.5%	-1.2%	-4.3%	-1.2%	-1.2%	0.8%	0.8%	-0.2%	0.5%	3.0%	0.5%	3.5%	0.7%	0.0%	-1.3%
SI	0.1%	4.5%	0.3%	0.3%	-2.1%	-1.4%	-0.2%	-0.7%	-0.2%	0.7%	-0.3%	-2.9%	-2.0%	2.2%	2.9%	1.3%	0.0%	-0.6%
SK	0.2%	6.9%	0.6%	0.4%	-0.7%	-6.2%	1.8%	-3.0%	-0.2%	0.8%	-0.7%	-2.1%	-1.4%	-1.2%	1.7%	1.5%	0.2%	0.2%
FI	-0.1%	1.9%	0.0%	-0.1%	-2.3%	-2.6%	-1.3%	-1.1%	-0.3%	0.5%	0.1%	-0.8%	3.6%	-2.0%	0.5%	3.5%	-0.1%	-1.2%
SE	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:
UK	0.0%	0.2%	-0.1%	0.1%	-1.0%	-1.4%	0.7%	-0.4%	-0.9%	0.1%	-0.1%	-0.6%	0.5%	-0.2%	1.9%	1.4%	0.0%	-0.5%

<sup>\* 2011</sup> most recent available data in National Accounts

\*\* Optional to deliver in LCS, only available for 22 MS in 2012