



ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

OECD SHORT-TERM ECONOMIC STATISTICS EXPERT GROUP (STESSEG)

Item 6: Development of comparable quarterly unit labour costs indexes for OECD member countries

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ITEM 6: DEVELOPMENT OF COMPARABLE QUARTERLY UNIT LABOUR COST INDEXES FOR OECD MEMBER COUNTRIES

SUMMARY OF NATIONAL FEEDBACK

1 Methodology used and industries covered for those organisations currently producing ULC indexes

Australia

The ABS does not currently produce a real unit labour cost index quarterly or annually. However, two key users, the Commonwealth Treasury and the Reserve Bank of Australia, do compile an index. They both use the same method to derive a quarterly real unit labour cost index for all non-farm industries. The formula is

$$\text{ULC} = \frac{\text{(non-farm labour costs / hours worked by non-farm wage and salary earners)}}{\text{(non-farm GDP volumes / hours worked by all non-farm employed persons)}}$$

where non-farm labour costs are estimated as non-farm compensation of employees + fringe benefits tax + payroll tax - employment subsidies

This formula is an alternative way of addressing the exclusion of the returns to the self employed as noted in paragraph 14 of the OECD paper. It also decomposes the unit labour cost quite clearly into a cost per hour worked and a labour productivity equation which may be useful for analysis. At the same time it implicitly assumes that the return to the self employed is the average rate of return to labour which may or may not hold. However, while there may be some difficulty in making such an assumption it is equally challenging to decompose gross mixed income into returns to capital and returns to labour. It seems likely that attempts to split GMI will also be based on assumptions which do not vary from quarter to quarter. An adjustment for ownership of dwellings is not made but seems reasonable particularly in the context of international comparisons. Its inclusion or exclusion is more likely to affect the level of the index rather than its movement from quarter to quarter.

The use of a broader notion of labour costs than compensation of employees is consistent with the OECD suggestion in paragraph 15. Overall, the basic method proposed by in the OECD paper looks reasonable assuming that the methodological issues can be addressed.

ISTAT

Istat currently produces quarterly indicators of ULC in the framework of national accounts. The ULC is calculated as the ratio between compensation of employee and constant price value added (measured at factor price); CoE is corrected to take into account the share of self employment and the correction is made at very detailed industry level. Quarterly ULC data are currently produced and disseminated for Agriculture (A,B), Industry (C-E), Construction (F); Trade, Transport & Communication services (G-J); Finance, Property and business services (K, L), Other services (M-O).

European Central Bank

The ECB breakdown for the ULC index follows the A6 breakdown: NACE sections A-B, C-E, F, G-I, J-K, L-P. Our compilation method is not the division of compensation of employees by value added (constant price) but:

division of compensation of employees (total compensation / number of employees) by labour productivity (value added / total employment). The difference is that the contribution of self-employees to value added is taken into account (in the numerator employees whereas in the denominator employment figures are used) therefore the "labour input" factor does not cancel out from our calculations.

2 Comments on the data availability matrix – is OECD proposing to use the best data available?

Luxembourg

In May 2005, Luxembourg published for the first time quarterly national accounts. At present, all the published series are available from q1/1995 to the last quarter of 2004. Therefore, it will be possible for Luxembourg to develop a quarterly unit labour cost index according to the levels of detail presented in the annexed table ('attachment1'). The unit labour cost index can be calculated by dividing the labour cost (gross wages and salaries + social security contributions paid by the employer) index by an index of constant price value added. The national accounts figures in the OECD annual national accounts database can serve as benchmark for the quarterly national accounts figures produced by Luxembourg.

Australia

Regarding the data availability matrix, data from the quarterly national accounts provide total compensation of employees and gross value added at basic prices for key industry groups. However, COE is not available by industry on a quarterly basis at present. The table suggests that gross wages and salaries are available quarterly by industry but I am not sure of the source of these data. Would the OECD be able to let the ABS know where the data have come from? It would be possible to derive a labour cost index multiplied by hours worked series by industry although there are current concerns around the quality of the hours worked series, particularly by industry. There are no data to compile the additional labour costs by industry although modelled estimates might be able to be generated as quarterly totals for these series could be produced. Value added for ownership of dwellings could be excluded from total value added.

Slovak Republic

Social Statistics and Demography Section of SOSR compiles quarterly unit labour cost indexes (on the basis of quarterly enterprise survey and adjustments of indirect costs – raw data) and send it in required form to EUROSTAT.

National Accounts and Prices Section prepares required data for the compilation of quarterly unit labour cost indexes, i.e. Constant price VA at basic prices by branches (A6 and A17), Compensation of employees by branches (A6, A17) according to ESA 95 methodology as seasonally non-adjusted (raw data) and transmits it to EUROSTAT and OECD at regular basis. We are working on preparation of seasonal - adjusted data. Descriptions of indicators as well as information on accessibility of data are available.

As regard Attachment 1 (Quarterly indicator variable data availability matrix) we would like to state that total VA for the compilation of quarterly unit labour cost indexes in OECD is taken from is taken from QNA. The other indicators are taken from Labour statistics and Statistics of industry, in spite of a fact that the VA and CoE data are available from QNA and are in accord with ESA 95 methodology. We would like to know the reason of such a progress. Is it because the data are seasonal non-adjusted? (In Questionnaire ESA 95 is stated that the transmission of seasonal-adjusted data is on voluntary basis.)

Italy

About the data availability matrix, the only issue with Italian data concerns a quarterly series of ULC in Manufacturing (D) that is not routinely produced and disseminated . Given that annual ULC data for Manufacturing coherent with those mentioned above are available, a quarterly series could be easily obtained utilising as quarterly reference series an estimate of ULC based on the standard quarterly national account (CoE per employee divided by per capita Value added, calculated using total employment). Hence the proxies mentioned in the matrix for D are not to be utilised.

We maintain that data on CoE and on Value added estimated in the framework of National Accounts are the best available source to be considered as annual benchmark in building a data set that will be mainly utilised for international comparisons of ULC evolution.

Poland

At present, Poland transmits the data to calculation of structural indicator to Eurostat, such as “unit labour cost” (according to the harmonized methodology). Data for years 1991-2003 has been sent.

Furthermore, according to the principle adopted by European Parliament and Council Regulation, we are obliged to elaborate quarterly non-financial accounts by institutional sector. Consequently, we will provide complete quarterly data to the indicator mentioned in the OECD document “*Development of comparable quarterly unit labour cost indexes for OECD countries*”, in the same scope as for structural indicator “unit labour cost”.

The deadline of the first transmission of sectorial quarterly data to the Eurostat was set to 3 January 2006 and should include the period from I quarter 1999 to III quarter 2005. Starting from the data for IV quarter 2005 quarterly accounts for sectorial institutions will be sent according to the transmission schedule.

New Zealand

Statistics New Zealand currently does not produce any quarterly unit labour cost indexes. However, Statistics New Zealand does produce a quarterly labour cost index which measures movements in base salary and ordinary time wage rates, and overtime wage rates. This is quite different to what a unit labour cost index is.

Statistics New Zealand is currently working on a development project aimed at integrating existing employer and employee information. This should provide a comprehensive value for wage and salaries as the information is based on administrative data which is full coverage. This information is currently not available.

Switzerland

For Switzerland there are no appropriate data available (either on annual nor on quarterly base), in so far as the matrix is correct.

Finland

The best source data for compensation of employees in unit labour cost index would ideally be the labour cost index. In Finland the use of labour cost index is not advised until year 2008, when the labour cost index will be renewed to be based on empirical data. Meanwhile gross wages and salaries can be used as source data. Also gross wages and salaries of market services (ISIC G_K) and business sector excluding agriculture (ISIC C_K) can be aggregated from individual industry components in current production.

Constant price value added data are available at the moment in QNA in Statistics Finland for the proposed industries 1-5. However, it does not exist for business sector excluding agriculture (C_K).

Compensation of employees is available for other industries than D and C_K. After the new distribution system for national accounts has been introduced (probably during year 2006), the data for compensation of employees in manufacturing (D) will become available. A few years later, also the data for business sector (C_K) may become available after the quarterly sector accounts have been developed.

Norway

In January 2005 Statistics Norway published a Labour Cost Index (LCI). The index was published for the first time for the third quarter of 2004, with back indices to the first quarter of 1998. The LCI is compiled every quarter, and is published not later than 70 days after the end of the quarter. The published figures may be revised by changes in annual or quarterly wage statistics, labour cost survey and total wages from The Register of End of the Year Certificate. The population covers all the establishments in Statistics Norway's Central Register of Establishments and Enterprises, industrial groups C, D, E, F, G, I and K according to NACE. For more about the CLI see http://www.ssb.no/english/subjects/06/05/aki_en/

Czech Republic

The CZSO now has quarterly and annual surveys on employment and earnings throughout the economy. The CZSO also holds annual surveys on the structure of earnings and labour cost. A Labour Cost Index is available quarterly starting from 1995.

Labour costs are costs spent by the employer to recruit and educate/train employees, remunerate them for work and cover their social needs.

3 Methodological issues for choosing benchmark variables for constructing the ULC

Netherlands

A quarterly unit labour cost index may currently be made from the Dutch quarterly national accounts. Because the Dutch quarterly national accounts are fully integrated with the annual national accounts, there is no need for an annual benchmark variable. The unit labour cost index defined as compensation of

employees divided by constant price value added is considered to be a sufficiently good indicator of inflationary pressure. For this purpose, the value added does not have to be adapted.

Australia

As the links between numerator and denominator are very important in this index the use of a consistent data source is important. The use of the annual national accounts as a benchmark seems logical from the ABS perspective especially since, if the project were to go ahead, quarterly national accounts data is a likely data source and this is benchmarked to the annual data in Australia.

With regard to footnote 4 - while it certainly the case that chain volume estimates should not be simply aggregated to create alternative industry groupings - if a defined industry grouping is required then proper chain volume series for the alternative aggregation can be derived thus overcoming the difficulty posed in the footnote. This is true for both quarterly and annual series.

Slovak Republic

The material presents interesting remarks especially from the methodological point of view. With some of mentioned problems we already met by experimental compilation of Labour accounts.

We would like to express especially to following points:

- 3.13 We agreed with proposal to exclude volume of VA from calculation of ULC. Similar problem might be agricultural production of own consumption, which creates a significant part of our VA at agriculture branch and influenced the ULC for this branch.
- 3.14 We support presented opinion to adjust compensation also for self-employed.
- 4.18 We support the opinion that Business sector should be compiled according to institutional sectors and not according to branches.

New Zealand

Exclusion of the self-employed. To decide whether self-employed should be included in the index it is first necessary to decide what the purpose of the unit labour cost index is. If the purpose is to find out about the actual cost of labour to businesses then they should possibly be excluded.

Taxes on employment. If there was a change in the rate of payroll tax, it is unclear why this would cause a fall in the ULC index. Wouldn't a change in the rate of payroll tax imply a change in price which should not impact on constant price value added?

Possible choices of annual benchmark variable. The best choice for the source of the annual benchmark may be the OECD annual national accounts database.

Switzerland

As Switzerland has different gaps in some statistics, we think that the simplistic approach would be preferable.

U.S Bureau of Labour Statistics

Section 2.Page 2, paragraph 5. Describing work by BLS, the text states that the BLS produces annual unit labor cost (ULC) indexes for the manufacturing sector for the United States, Canada, Japan, and nine European countries. It does not mention Australia, Korea and Taiwan, which are also included in the BLS series of 15 countries.

The text also states that for France and Sweden significant taxes on payrolls and employment are added to the total labor cost measures. It does not mention that such taxes are also added for Canada, nor that historically, for some past years, subsidies were subtracted for the United Kingdom.

The text also states that for the United States, Canada, Japan, France, Germany, Norway, and Sweden the labor cost for all employed persons is estimated by assuming that the self-employed receive the same average compensation as employees. Actually this is true for 12 countries, all except Canada, Belgium, and Taiwan. For Canada, BLS receives compensation data for all employed persons from Statistics Canada. For Belgium and Taiwan, BLS estimates compensation and ULC for employees only.

Section 8.Page 10, paragraph 41. The text again mentions the possibility of using BLS as "a source for the annual benchmark ULC index for some countries." The text implies that in this case the two input components (i.e. labor compensation and output) "are not readily available from the annual benchmark source." This is not correct, since the corresponding labor compensation and output indexes are published together with the ULC index.

4 Comments on the industries proposed to be covered

Bank of Italy

As a user of ULC statistics, I do support the breakdown proposed at page 4, in particular as regards the need to compute ULC for market services, for which I believe there is a great interest on the users' side. I think it is also important to recall the importance of these data for computing the indicators of competitiveness. In this respect, timeliness in the release of these data is a crucial requirement; moreover, data for the various countries must be available for to the same sectors. In this respect a typical problem we face has to do with the difference between "industry", which includes energy, and "manufacturing", which excludes it.

Australia

ABS has no particular concerns. The industry groupings should be largely based on OECD's intended use of the data. We would support the comment in paragraph 18 - institutional sector data are not available for value added estimates in Australia.

Italy

Istat agrees with the proposed industry breakdown.

New Zealand

The industries covered should depend on the purpose of the unit labour cost index. It is unclear why the market services aggregation stopped at ISIC K. This results in the exclusion of activities in the cultural and recreational area which would have some market activity. It is assumed that the business sector aggregation is trying to exclude ISICs dominated by government. Are industries C_K the best representation of this?

Switzerland

For Switzerland the proposed selection is ok although Switzerland will not be able to cover all the aggregates.

Finland

The industries proposed to be covered seem reasonable. Especially in the case of using quarterly labour cost index as source data, more detailed grouping of industries could lead to reduction in quality.

5 Comments on the proposed priorities for quarterly indicator variables

Australia

The proposed quarterly indicators and their relative rankings seem sensible.

Italy

Istat agrees by and large with the proposed order of preference for proxies of quarterly CoE estimates; however, it could be worth exploring the possibility of correcting earnings measures to take into account movements in the rate of social security contribution.

New Zealand

Proposed priorities for quarterly indicator variables. It was unclear why some quarterly indicator variables were more preferable than others.

Switzerland

Using proxy variables seems a possible way to overcome statistical gaps. As for Switzerland we will not be able (at the present moment) to provide even proxy variables for the Compensation of Employees. There

are no quarterly data available for the Gross wages and salaries by industries, for the labour cost index, the hourly earnings index and for the weekly or monthly earnings

6 Comments on the proposed quality evaluation and benchmarking methodologies

U.S Bureau of Labour Statistics

The authors intend to use gross output to interpolate and extrapolate value-added output by industry. (In its Productivity and Costs measures, BLS extrapolates sectoral output in manufacturing by the Federal Reserve's index of industrial production. In this case, both are close to gross output concepts, however.) The authors' process is reasonable between annual benchmarks, but as the authors note a goal is to develop current data which requires extrapolation. For example, sectoral output increased 2.2% per year between 1979 and the third quarter of 2003 (on an SIC basis) while value-added output increased 3.0 percent per year between 1979 and 2003 on a value-added basis. In this case the growth rate of gross output may systematically differ from value-added for some industries. The authors note that they will conduct a series of experiments to make 1 year ahead forecasts. Presumably the authors will determine that the forecasted growth rate of value-added output can be modeled using gross output, but the important question is how stable this model is even over short periods of time. I have no real intuition about the answer to this question, but the authors must be prepared to admit that for some industries in some countries, they have no reliable indicator series to extrapolate with.

Australia

The basic evaluation and benchmarking suggested seems fine but only seems to really be an issue where the quarterly and annual input series are inconsistent. If all data were to be sourced from the national accounts then, in cases where the quarterly data are benchmarked to the annual data, the types of methods proposed seem unnecessary. In particular, the idea of overwriting actual quarterly data with preliminary benchmarking or nowcasting would not be supported by the ABS. However, in cases where the connection between the annual benchmarks and quarterly indicators is quite loose some modeling might be appropriate.

Italy

About the approach proposed for quality evaluation more stress can be put on the issue of consistency between the evolutions of ULC for different degree of aggregation of industries; for instance the changes in ULC of manufacturing must be coherent with the one of Industry and the evolution of the C-K sector must be consistent with the aggregation of Industry, Construction and Market Services. Even if annual benchmarks are coherent, using quarterly proxies differentiated by sector could result in inconsistent short-term movements. About benchmarking, we consider that benchmarking the component series would be the approach to be preferred, unless a very reliable quarterly proxy of ULC is already available. Finally, it seems that the description of the testing procedure in paragraph 49 of "preliminary benchmarking/nowcasting" needs further clarification.

New Zealand

Proposed approach for quality evaluation and benchmarking. Disagree with the recommendation to sum the relevant industry estimates for constant price value added. Statistics New Zealand produces chain-

linked value added series which are not additive. It is recommended the OECD should go back to member countries and ask for series to be chain-linked at the desired industry aggregations.

7 Other General Comments

U.S Bureau of Labour Statistics

Section 5. Page 5, paragraph 20. The text refers to BLS as a potential source of annual benchmark ULC indexes. The text states that the "BLS is one of the primary benchmark sources for the OECD's *Economic Outlook*; however it only contains data for 13 countries and only for manufacturing. The BLS does make adjustments for employment taxes and the self-employed but only for a selection of countries as outlined in paragraph 5." The number of countries is incorrect, as indicated in the comments to Section 2 above. It is not clear in what way the BLS is "one of the primary benchmark sources for the *Economic Outlook*."

New Zealand

It was unclear from the paper what the purpose of the OECD producing quarterly unit labour cost indexes for OECD countries was. Before any discussion commences on the issues faced with producing quarterly unit labour cost indexes, it would be useful to firstly outline what the purpose of these indexes are. If this statistic is important enough to produce in its own right, the OECD should consider going back to its member countries and asking for specific data requirements, not just using existing data sources. This would ensure optimal quality of the series the OECD is producing.

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