

WORKSHOP ON LABOUR COSTS

Rome, 5-6 May 2015

The same or different?

An exploration of wage definitions and measurements in LCS and SBS

C. Baldi, S. Pacini, F. Tartamella

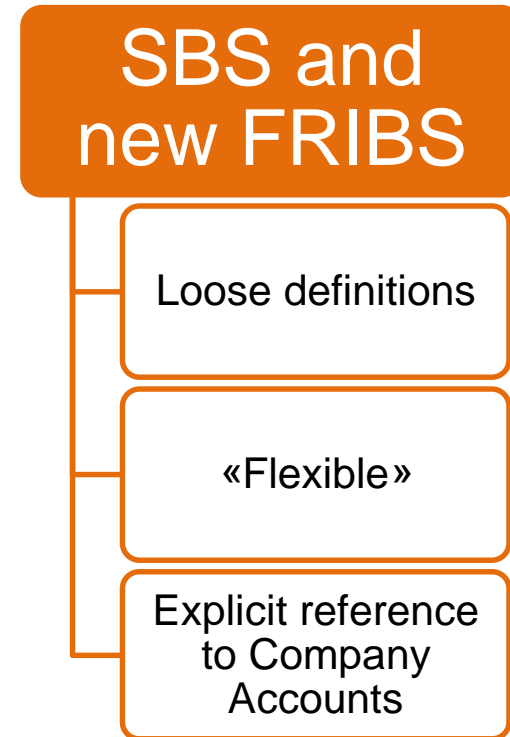
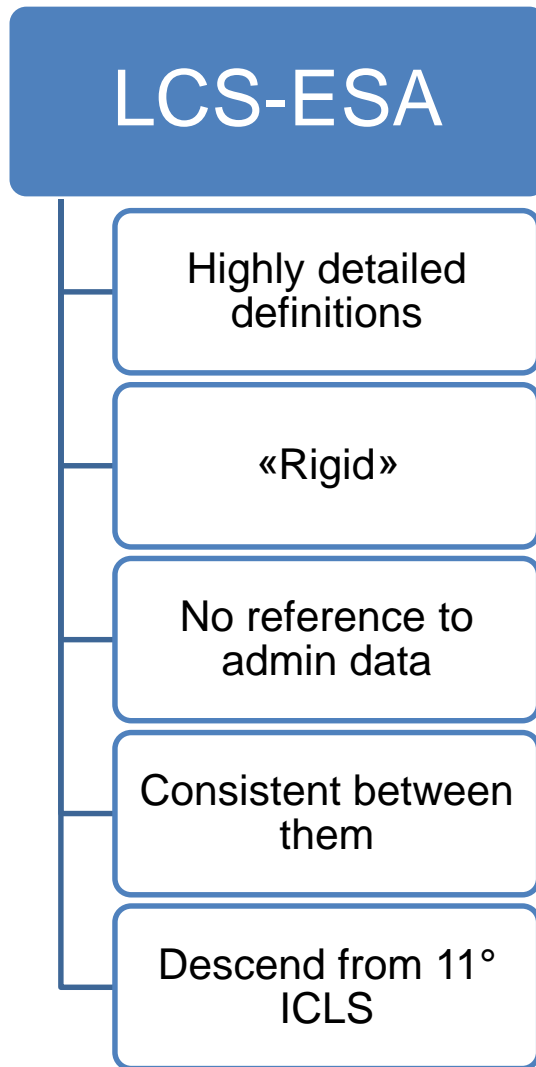
Overview

- ✓ Context and motivations
- ✓ The regulations at a glance
- ✓ Informative systems within the enterprises
- ✓ Differences between theoretical and operational definitions
- ✓ Magnitudes of the differences
- ✓ Conclusions

Context and motivations

- ✓ Frame Regulation Integrating Business Statistics (FRIBS)
- ✓ Promote Vertical and Horizontal consistency
- ✓ In our context consistency between some EU Reg. on wages, labour costs, hours worked.
- ✓ Essnet project has studied the definitions across regulations and proposed unified definitions
- ✓ Task force document proposed new definitions for SBS
 - Are they meant to be applied to other domains as well?

Regulations with different philosophies



Labour cost in the Regulations

ESA		LCS		SBS		New FRIBS	
Coding	Definition	Coding	Definition	Coding	Definition	Coding	Definition
D.1	Compensation of employees	D.1	Compensation of employees	13 31 0	Personnel costs	Employee benefits expenses
D.11	Wages and salaries	D.11	Wages and salaries	13 32 0	Wages and salaries	Wages and salaries
D.12	Employers' social contributions	D.12	Employers' social contributions	13 33 0	Employers' social security costs	Social Security costs

FRIBS Document

Link to financial statements
SBS=CA

- Wages and salaries **are recorded** in the financial statements on the profit and loss account based on the nature of expense method, under the subheading “Wages and salaries” (European Accounting Directive – 2013/34/EU, Annex V).

Links to other regulations
SBS=LCS/ESA

- The variable “Wages and salaries” **corresponds** to the transaction having the same name in National Accounts (ESA 2010 paragraphs 4.03-4.07, code D.11). Its components, for purposes of labour statistics, are defined in Commission Regulation No 1726/1999, as amended, where the variable also bears the same name.

If «corresponds» means
«is equal»
CA=LCS/ESA

- Is this true?
- Are the SBS and LCS wages the same or different?

The same or different?



High Res Image 300dpi



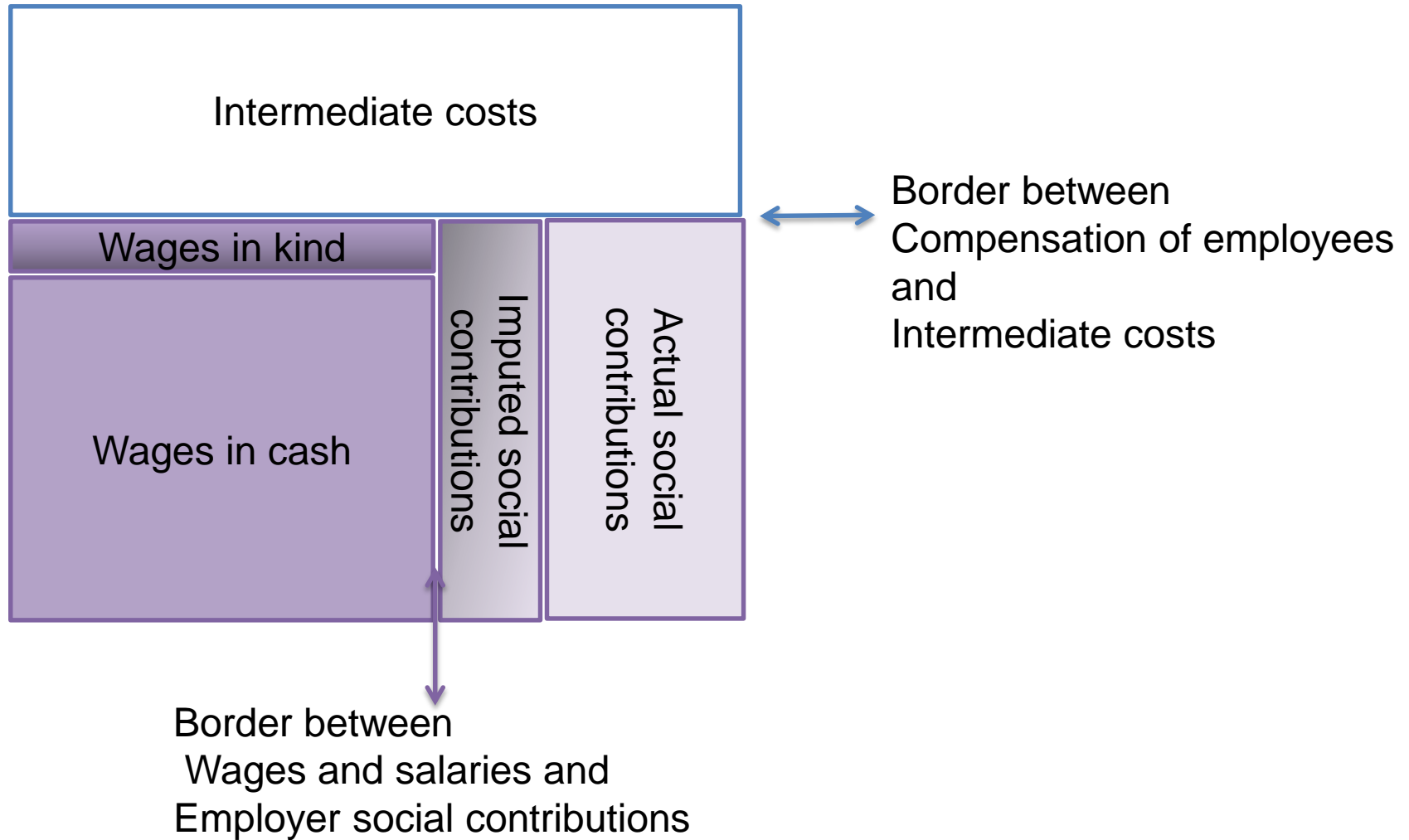
Low Res Image 72dpi

The LCS and SBS sources

	SOURCE	
	LCS	SBS
Theoretical definitions	Commission Regulation (EC), N. 1737/2005	Commission Regulation (EC), N. 250/2009
Operational definitions	Questionnaire	Questionnaire / Company account
Information systems within the firms	<p><i>Personnel accounting</i></p> <p>Payroll; Social security declarations; Employee tax declarations</p>	<p><i>General accounting</i></p> <p>Financial statement (profit and loss; balance sheet; tax declarations)</p>

Adjustments (matching principles; reclassification)

Borders of definition



Operational definition

Items	LCS/ESA Regulations	SBS – CA operational definitions
Non regular components (arrears, golden handshakes)	Wages and salaries “when due to be paid”	Wages and salaries “at the time the work is done” or, for the golden handshakes, social security costs
Travel allowance (reimbursement of expenses part)	Out of scope	Wages and salaries
Meal vouchers and other Fringe benefits	Wages and salaries	Intermediate costs
Wages and salaries employer continues to pay in the event of illness...	Employers’ social contributions	Wages and salaries
Other components (occasional cash subsidies, compensation in lieu of notice)	Employers’ social contributions	Wages and salaries

To be included

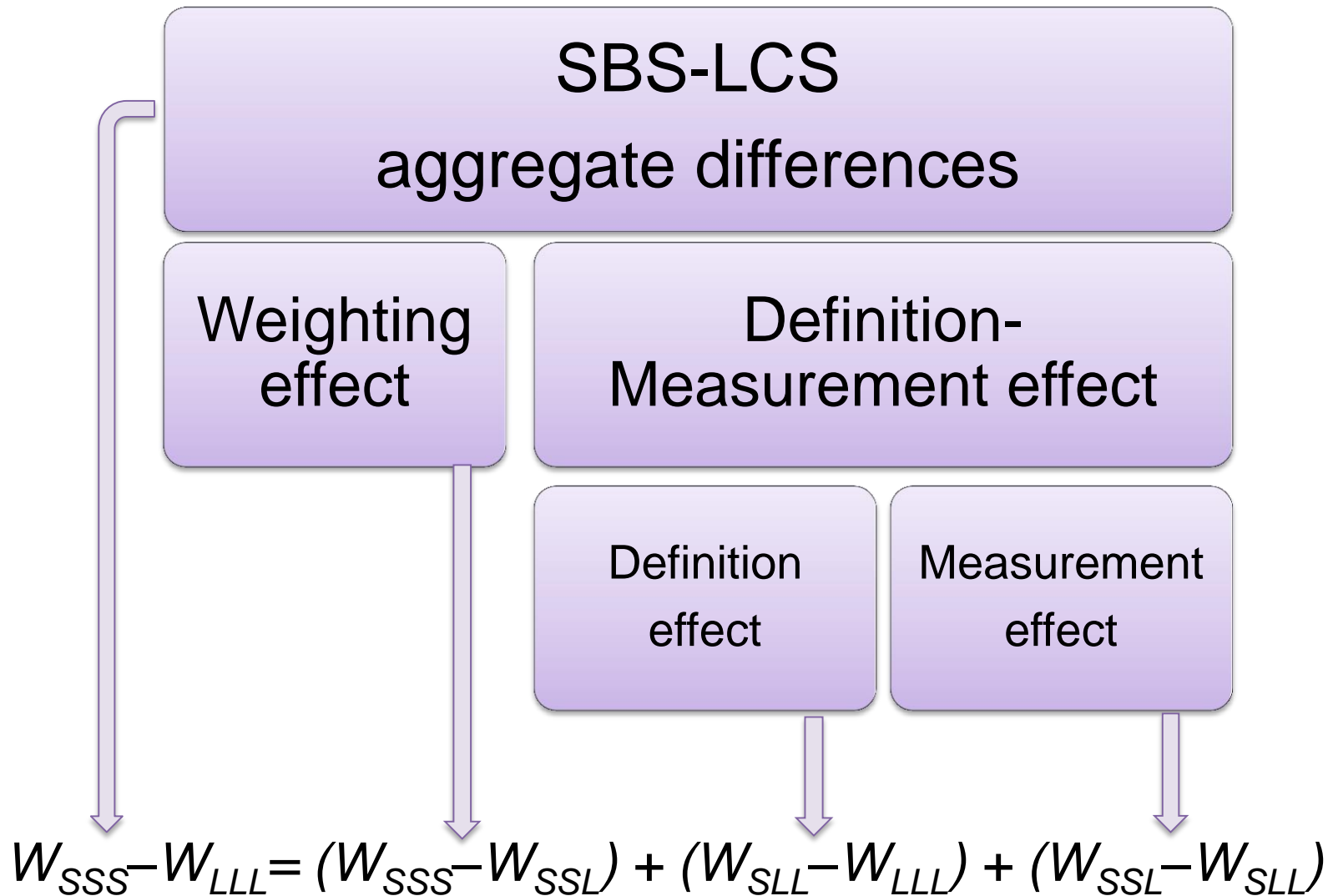
To be excluded

How to measure the differences due to definitions?

- ✓ The differences between estimates are usually a mix of:
 - Differences in definitions (micro level)
 - Differences in measurement instruments (and their errors) (micro level)
 - Difference in the weighting system (estimation level)

- ✓ In Italy some conditions allow to try the decomposition:
 - The survey unit is the enterprise in both SBS and LCS
 - SBS estimates are Register based (census)
 - ➔ each respondent of LCS can be matched to SBS
 - The LCS questionnaire is detailed enough to try to simulate the SBS definition

Decomposing the differences between wage estimates



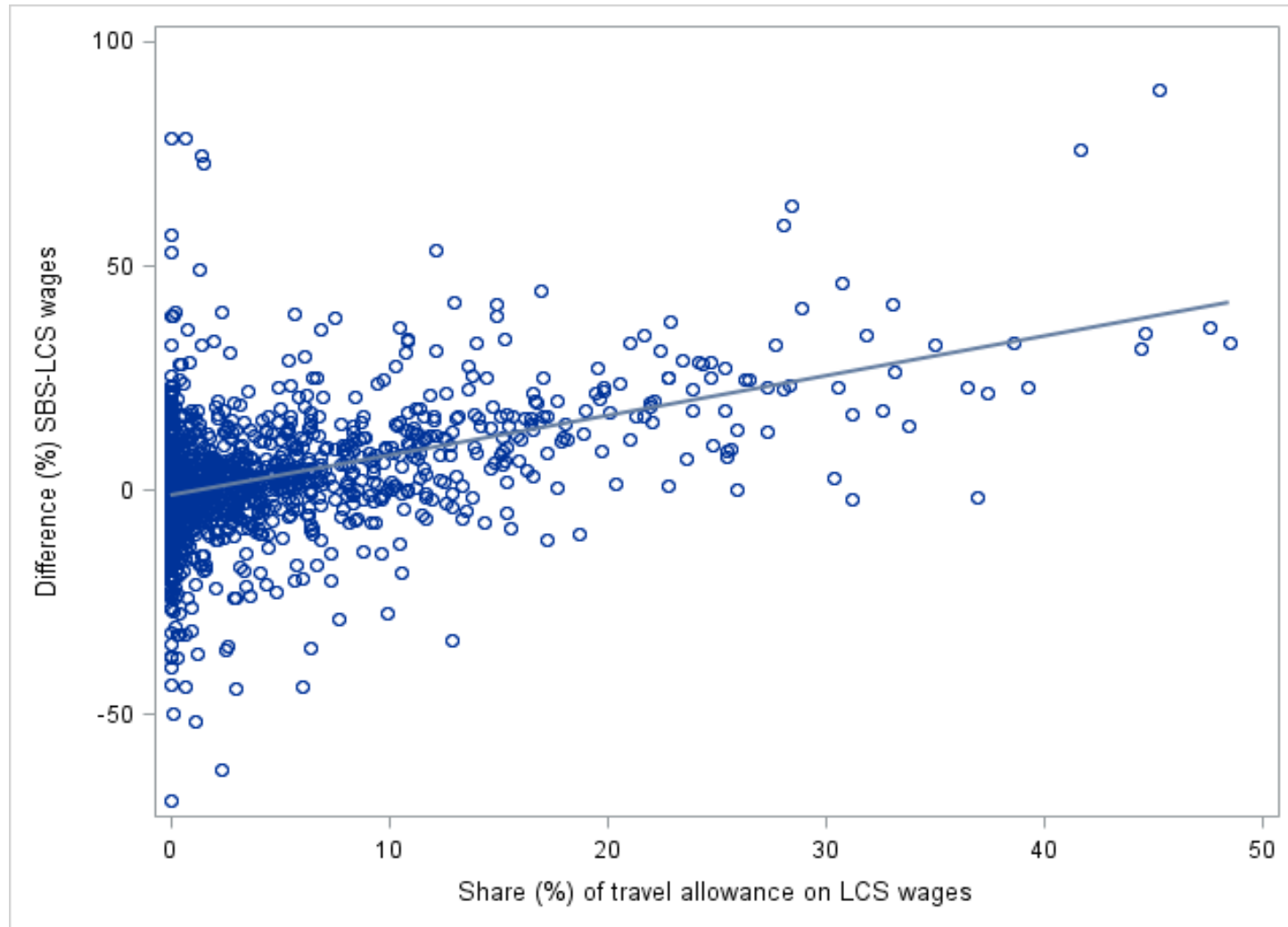
Decomposition of differences between SBS and LCS

Nace rev. 2 sections	Total	Weighting	Definitions and measurement	OF WHICH definitions
B - Mining and quarrying	-9.3	-7.2	-2.2	-5.6
C – Manufacturing	-0.6	0.2	-0.8	0.3
D - Electricity, gas, steam and conditioning supply	-1.6	1.0	-2.6	-3.4
E - Water supply, sewerage, waste management and remediation activities	-1.2	-0.9	-0.3	0.4
F – Construction	5.1	0.2	5.0	3.1
G - Wholesale and retail trade; repair of motor vehicles and motorcycles	-1.3	-0.1	-1.2	0.1
H - Transportation and storage	1.1	-0.4	1.5	1.6
I - Accommodation and food service activities	-2.4	0.3	-2.7	0.6
J - Information and communication	-1.7	-0.5	-1.2	-1.5
L - Real estate activities	1.4	1.5	-0.2	-0.3
M - Professional, scientific and technical activities	-1.1	-1.5	0.4	-1.3
N - Administrative and support service activities	-0.6	0.9	-1.5	0.7
P – Education	-2.0	-2.2	0.2	0.8
Q - Human health and social work activities	0.9	0.0	0.9	1.6
R - Arts, entertainment and recreation	3.4	1.0	2.4	-0.5
S - Other service activities	0.9	1.2	-0.3	1.4
Industry excluding construction (B-E)	-0.8	0.0	-0.8	0.1
Industry (B-F)	-0.1	0.0	-0.2	0.4
Services (G-S)	-0.5	-0.1	-0.4	0.3
Total (B-S)	-0.3	0.0	-0.3	0.4

Components of definitional differences

Nace rev. 2 sections	Definitions	Detailed items on definition differences			
		Travel allowances	Non regular components	Wages in kind	Imputed social contributions
B - Mining and quarrying	-5.6	0.5	-7.4	-1.8	3.2
C – Manufacturing	0.3	0.7	-1.1	-0.7	1.5
D - Electricity, gas, steam and conditioning supply	-3.4	1.2	-3.5	-2.7	1.6
E - Water supply, sewerage, waste management and remediation act.	0.4	0.7	-0.6	-1.2	1.5
F – Construction	3.1	3.6	-0.8	-0.9	1.2
G - Wholesale and retail trade; repair motor vehicles and motorcycles	0.1	0.7	-0.8	-0.8	1.0
H - Transportation and storage	1.6	3.0	-1.4	-1.6	1.6
I - Accommodation and food service activities	0.6	0.3	-0.4	-0.2	0.9
J - Information and communication	-1.5	0.8	-1.6	-1.8	1.1
L - Real estate activities	-0.3	0.6	-1.3	-1.2	1.6
M - Professional, scientific and technical activities	-1.3	1.0	-2.3	-1.4	1.4
N - Administrative and support service activities	0.7	0.8	-0.5	-1.0	1.4
P – Education	0.8	0.5	-0.3	-0.4	1.2
Q - Human health and social work activities	1.6	0.2	-0.3	-0.2	1.8
R - Arts, entertainment and recreation	-0.5	1.2	-2.0	-0.6	0.9
S - Other service activities	1.4	1.0	-0.3	-0.5	1.3
Industry excluding construction (B-E)	0.1	0.7	-1.3	-0.8	1.5
Industry (B-F)	0.4	1.0	-1.2	-0.8	1.5
Services (G-S)	0.3	1.2	-1.0	-1.1	1.3
Total (B-S)	0.4	1.1	-1.1	-1.0	1.4

Travel allowance and SBS-LCS wage differences



Conclusions (1)

- ✓ Looking at the level of theoretical definitions SBS and LCS/ESA definitions might appear similar
- ✓ However SBS and FRIBS seem to delegate the operational definition to the rules of Company Accounts
- ✓ Looking closely at the level of operational definitions they show up clearly as different
- ✓ the FRIBS statement that they “corresponds” is incorrect as it can be interpreted as “are equal”

Conclusions (2)

- ✓ Empirically the differences, due to definitions, are not large, however:
 - In part it is due to components that average out
 - In some sectors they are remarkably larger
- ✓ The survey instruments, intentionally or not, target different informative systems within the enterprises
 - LCS figures can only be retrieved through the payroll system
- ✓ National accounts estimates that move from SBS data must be adjusted to comply the ESA regulation

Conclusions (3)

- ✓ At the state of the art it is not clear whether the FRIBS definitions regulation is heading toward unique definitions
- ✓ If the answer is yes this would imply a redefinition of LCS definitions
 - The consequences on the LCS measurement might be quite troublesome
- ✓ If the answer is no FRIBS should state more explicitly the differences between the definitions

Thank you
for your attention

baldi@istat.it
pacini@istat.it
tartamel@istat.it