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Revisited Sector Paper Telecommunication Services ISIC J 61

Telecommunication VBG History

- Mini presentations in 2008
- Sector Paper by Benjamin Camus in 2009
- Updated Sector Paper by Liam Murray in 2012
- 2017/2018 Revisited Sector Paper due to new developments and a new CDF (based on the Updated Sector Paper out of 2012)

Content according to the new CDF

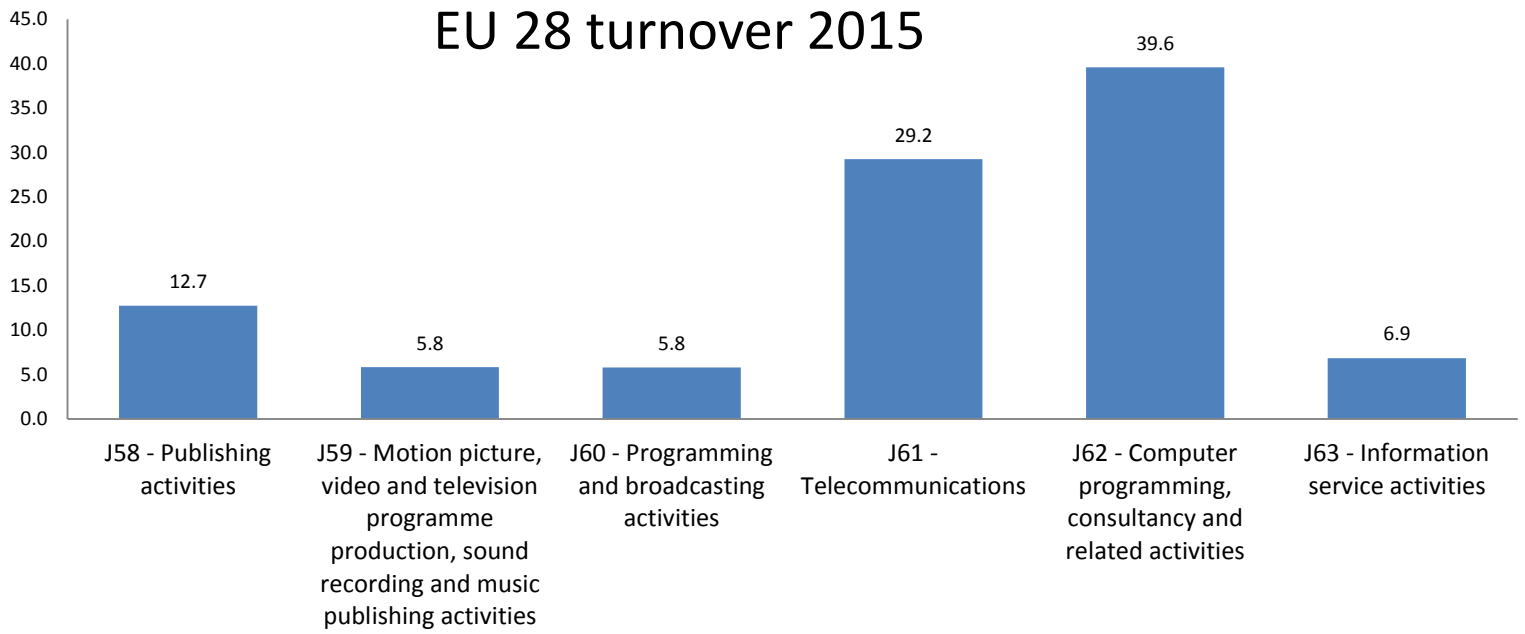
- Descriptions and characteristics of the industry
- Turnover/output measurement
- Measurement of SPPI
- Evaluation of measurement
- International Progress

Descriptions and characteristics of the industry: *Classifications*

- No changes in the classification structure
- Secondary production is an issue

ISIC (Rev. 4)	NACE (Rev. 2)	NAICS (v. 2017)	ANZSIC (v. 2006/Rev. 1)	Class (Group)
6110	6110	5173	5801	**Wired telecommunication activities**
6120	6120	5173	5802	**Wireless telecommunication activities**
6130	6130	5174	5809	**Satellite telecommunication activities**
6190	6190	5179		**Other telecommunication activities**

Descriptions and characteristics of the industry:
Market conditions



- Significant amount of turnover and therefore an important service industry
- Highly concentrated with only few dominating major players
- Worldwide number of internet users is growing continuously

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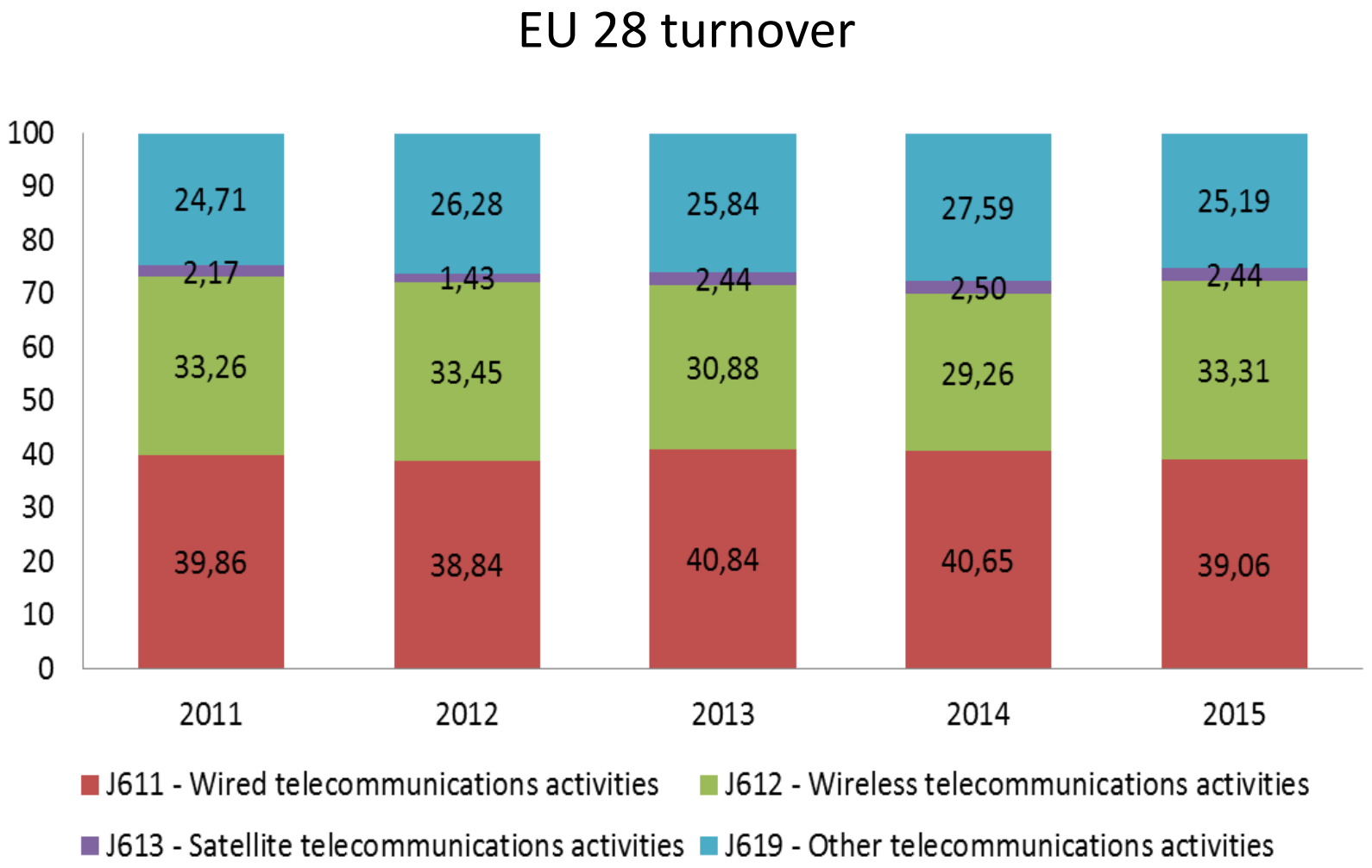
Market conditions



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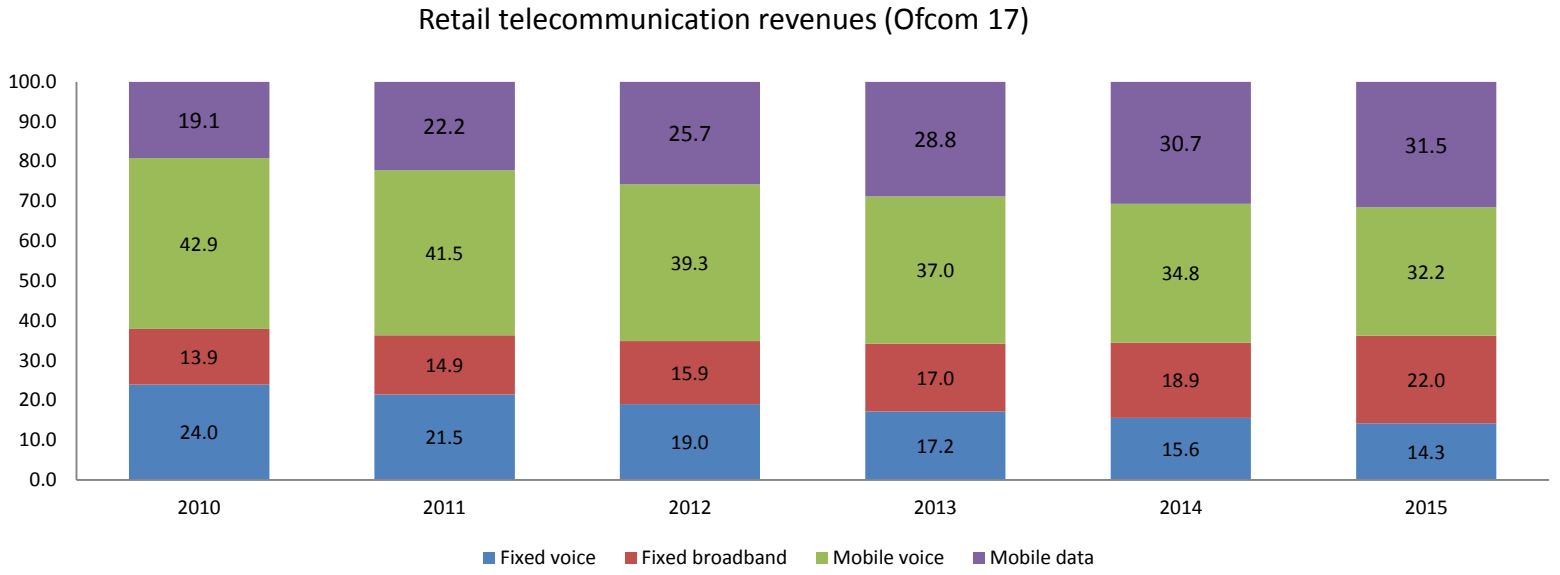

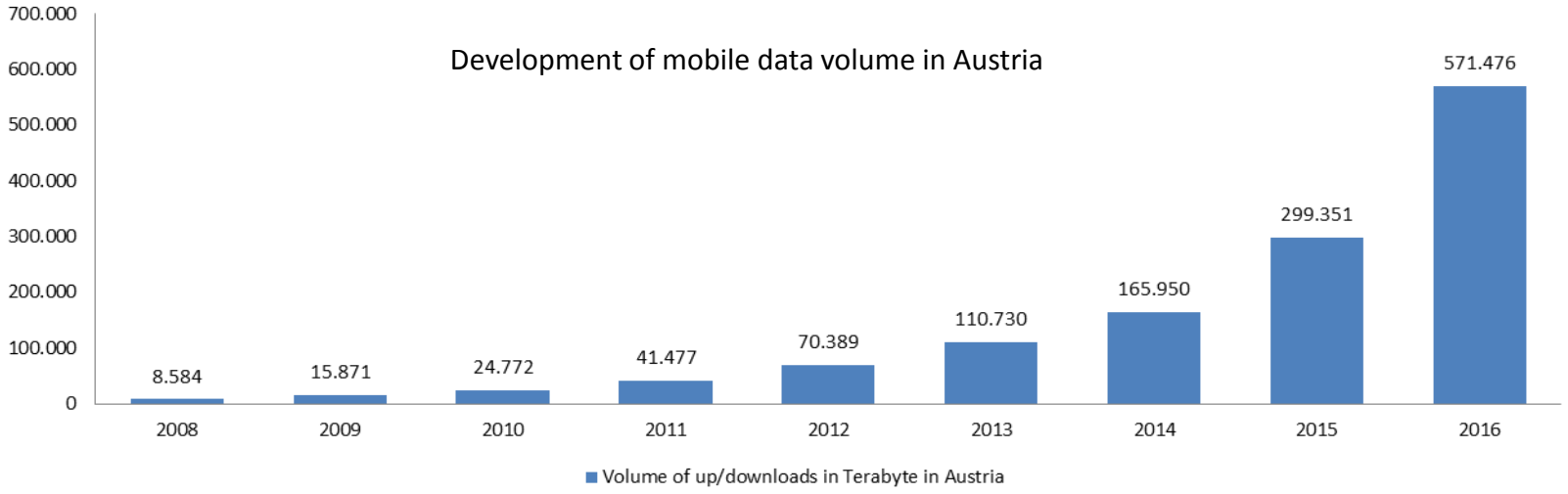

Descriptions and characteristics of the industry:
Market conditions/industry trends

- Share on B2B vs. B2C differs within the 4 ISIC codes
- Export and non domestic services (export vs. import; roaming)
- Primary and secondary production complicate the appropriate classification and sampling
- Monopoly/oligopoly markets are replaced by competition provoked by deragulation
- Trends:
  - Net neutrality
  - Roaming
  - Internet of things

Descriptions and characteristics of the industry:
Specific characteristics

- Nature of selling depends on ISIC code
- Bundling is omnipresent
- Strong trend to bundles in the wired telecom in the US
- Wired bundles include telephony, TV and internet
- Bundles in the wireless telecom include minutes, SMS and data
- Plans with no phones is a new trend
- Shifting consumer trends have to be followed by SPPI:
    - Frequent revisions
    - Frequent reweighting

Turnover/output measurement:
General framework

- Not much new information
- Well developed due to SBS (annually) and STS (quarterly) regulations
- Administrative data (enterprise reports, regulator data) reduce respondent burden
- Collection of invoiced sales of goods and services to third parties has to be surveyed
- Administrative data could lead to overestimation (includes sales of fixed assets)
- Secondary production is also an issue (should be excluded)
- Turnover should be collected at least annually

Measurement of SPPI:
General framework

- Scope B2B vs. B2All
- Currently B2B
- But for deflation of total output a B2All is needed for NA
- Under FRIBS (Framework Regulation of Integrating Business Statistics) B2All is mandatory
- Extension of coverage as well
- New ISPs which have to be deflated by SPPIs

Measurement of SPPI:
Measurement issues

- Enterprise (SBS) vs. KAU (SPPI) could cause inconsistencies
- Product based indices are favoured (secondary activity)
- Weights should be rebased frequently
- Data sources:
  - Survey
  - Administrative regulator data
  - Internet list prices
- Target coverage:
  - B2All = B2B + B2C (like the US)
  - Surveyed disaggregated customer type indices result in B2All index
  - Or to use already existing adjusted CPI (at constant taxes)
- Various sampling methods suitable

Measurement of SPPI:
Measurement methods

- Services being priced:
  - Type of contract: old (single service) vs. new (bundle)
  - Price determining characteristics (minutes, sms, data, etc.)

- End of roaming charges (but new contract types arise)

- Pricing methods:
  - Component pricing (bill – /rate method)
  - Unit values
  - Direct use of prices of repeated services
  - Consumer profiles
  - Use of CPI proxies

Measurement of SPPI:
Issues

- Weights by survey or regulator (unit value method)
- Pricing of bundled services (seperate services vs. bundle)
- The latter is less burdensome
- Quality adjustment (new experiences by the US using a hedonic approach)
- Frequency (quarterly is prevailing, but monthly ISPs)

Measurement of SPPI:
Issues

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➢ Comparability price with output data:

- Collection of turnover data at industry level only. Raise challenges for calculations of SPPI at product level
- At 2-digit level degree of comparability larger, due to the structure in the industry
- Turnover is not collected directly for bundled services. Is it a problem with regard to comparability to prices?
- Different samples used for measuring turnover and SPPI
- Turnover is collected B2All in Europe. SPPI, at the moment, only for B2B

Evaluation of measurement

- A horizontal integration of telecom with IT is observable
- Bundles are prevalent and are tried to be surveyed
- Administrative regulator turnover and price (unit values) data can minimise respondent burden
  - Data are already checked for plausibility etc.
  - But no influence on coverage (AUT)

International Progress

ISIC J 61 Telecommunication	6110 Wired telecommunications activities	6120 Wireless telecommunications activities	6130 Satellite telecommunications activities	6190 Other telecommunications activities
PPI details >= CPC	2	2	0	1
PPI details >= CPC soon	0	0	0	0
Turnover details >= CPC	1	1	1	1
Turnover details >= CPC soon	0	0	0	0
Industry prices calculated	13	13	3	8
Price collection frequency	8Q/5M/1Q+M	8Q/5M/1Q+M	4Q	7Q/2M
Industry turnover collected	15	15	12	13
Turnover collection frequency	1Q/4M/4A/4A+Q	1Q/4M/4A/4A+Q	3M/4A/4A+Q	1Q/2M/5A/4A+Q
Detailed turnover and prices well aligned	1	1	0	0
Detailed turnover and prices well aligned soon	0	0	0	0
Industry level turnover and prices aligned	12	12	3	8
Industry level turnover and prices aligned soon	1	1	2	1
Other - no industry coverage for prices and/or turnover, etc.	2	2	11	7
Q = Quarterly; M = Monthly; Q+M = Quarterly+Monthly; A = Annually; A+Q = Annually+Quarterly				

International Progress cont.

- Increasing country descriptions (USA, SGP, CAN, POL, FIN, IT, HRV)

Pricing Method	Number of countries using the method	List of countries using the method
Transaction	5	AUS, HKG, KOR, CHN, USA
Unit Price / Unit Value	13	NOR, AUT, GER, CAN, FRA, POL, ESP, FIN, SGP, HRV, IT, GBR, DNK
Transaction + Model pricing	1	CHE
List prices	4	CZE, POL, SVK, SVN
List and/or Transaction	4	MEX, NZL, SGP, SWE,
Mix of Model/Unit value/List/Prices of repeated services	4	NLD, JPN, HUN, USA

International Progress cont.

- Country descriptions available:
  - VBG
  - SPPI Guide
  - CIRCABC (Eurostat)
- Examples and questionnaires (USA, CAN, FIN, GER, AUT)

International Progress – Questionnaires (GER)

Telephony: Private Lines		Units	Q1 2018
1.1 Telephony	a) Access Revenues: Voice Telephony	Revenue	
	Number of connections	Units	
	b) Connection revenues	Revenue	
	Local	Revenue	
		Minutes	
	Long distance	Revenue	
		Minutes	
	Calls to mobile networks	Revenue	
	Mobilfunknetze	Minutes	
	International calls	Revenue	
		Minutes	
	Others	Revenue	
		Minutes	
	e) VoIP-Services	Revenue	
		Minutes	

- https://www.rtr.at/de/tk/KEV (AUT)

International Progress – Questionnaires (USA)

CHECKLIST CODE: **CHECKLIST TITLE:** LOCAL TELEPHONE SERVICE

05 PRICE CALCULATION

Indicate all service features in the table below. Features may be provided on an a la carte basis, as part of a service package, or both. For any feature included in the service package at no extra charge, enter "0.00" in the ***Total Charge*** *column.*

	Billing Code	Units	Rate	Total Charge
A. Access line charge *(except message rate)*				
Enter type of line selected in group 03				
B. Mandatory Charges				
Subscriber line charge				
Other				
C. Message Rate *(if applicable)*				
Minutes				
Minutes: peak				
Minutes: off-peak				
Minutes: *enter other type*				
Minutes: *enter other type*				
Calls				
Rate A				
Rate B				

International Progress – Questionnaires (USA)

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AVERAGE REVENUE PER LINE CALCULATION – OPTION 1

Part I – Average units per access line

Data for Part I is used for initial price calculation (see synopsis for instructions). Data will not be entered in the collection system.

Column 1	*Column 2*	*Column 3*	*Column 4 (col 2 / col 3)*
Type of charge	***Total units, billed and free***	***Total number of lines***	***Average number of units per line***
Fixed recurring charges			
Non-data plans (voice and text)			
Data plans (broadband combined with voice and text)			
Data-only plans (broadband only)			
***or** Combined plans:_____*			
Usage charges			
Voice minutes			
Peak minutes			
Off-peak minutes			
***or** Total air minutes*			
Text messaging			
SMS			
MMS			
Premium			
***or** All text messaging*			
Broadband			

Part II – Average revenue per unit

Data for Part II is used for initial price calculation (see synopsis for instructions).

Column 1	*Column 2*	*Column 3 (Part I, col 2)*	*Column 4 (col 2 / col 3)*
Type of charge	***Total net billed revenues***	***Total units, billed and free***	***Average revenue per unit***
Fixed recurring charges			
Non-data plans (voice and text)			
Data plans (broadband combined with voice and text)			
Data-only plans (broadband only)			
***or** Combined plans:_____*			
Other charges			
Voice minutes			
Peak minutes			
Off-peak minutes			
***or** Total air minutes*			
Text messaging			
SMS			
MMS			
Premium			
***or** All text messaging*			
Broadband			

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Thank you!

Questions?