Quality Factors in Postal Price Regulation

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Agenda

"*Quality Factors in Price Regulation*":
Mechanism where a quality factor in price cap formulae effects a direct link between service quality and approved prices.

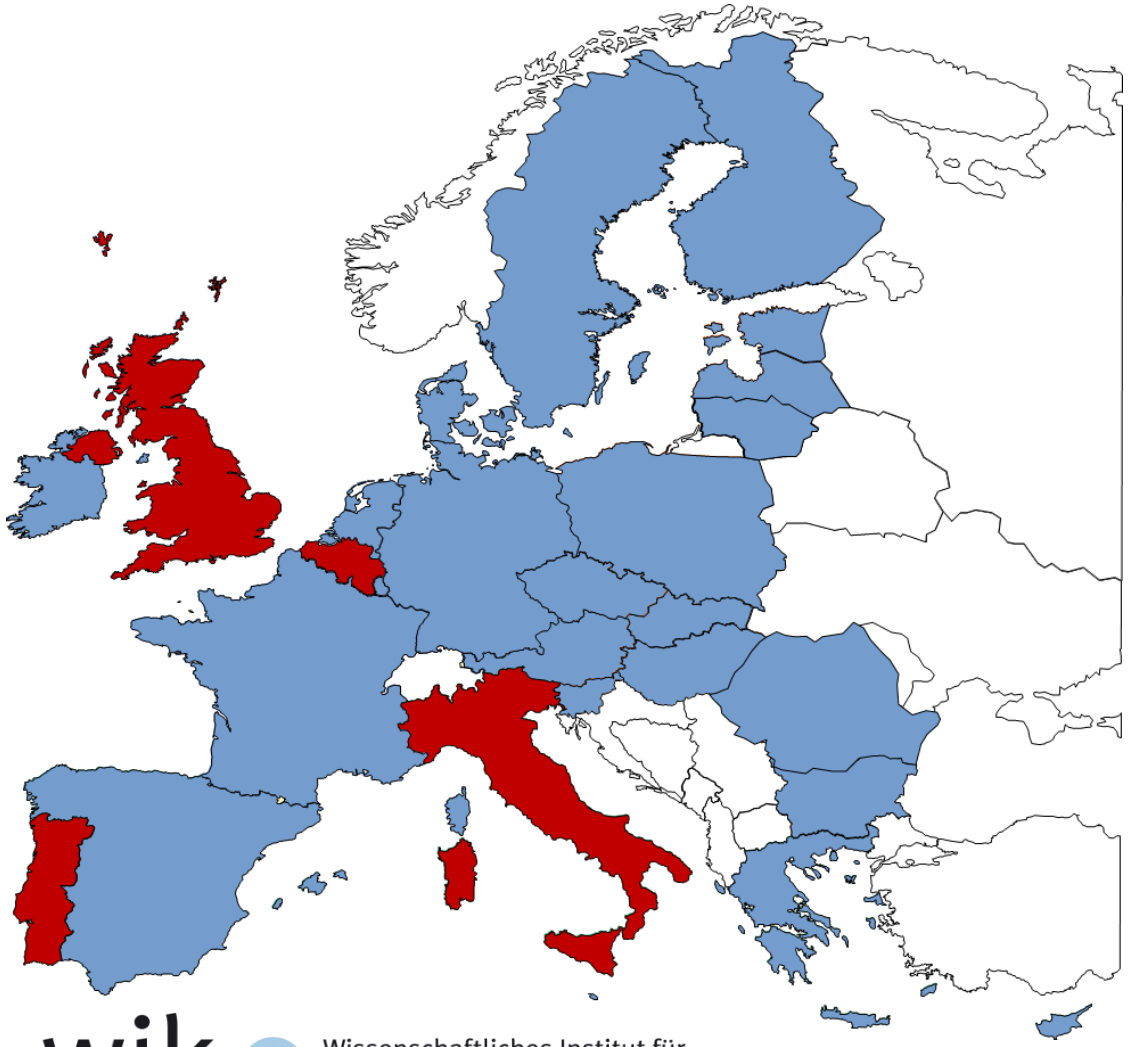
Contents of presentation

- Introduction
- International experience with quality factors in price control
  - Belgium
  - Italy
  - Portugal
  - UK
- Conclusions

Introduction

- Background
  - Postal operators faced with volume declines
  - Operators react by cutting cost
  - Some postal regulators concerned about cut-backs in quality
- Quality of service is traditionally monitored/controlled separately from price regulation in Europe
- Paper raises the question whether or not quality incentives/factors should be included in price regulation
- Paper based on WIK study prepared in 2011 / Input to price control decision by Bundesnetzagentur in 2011

Introduction (cont‘d)



Methods to regulate quality

- “Direct quality regulation” (set targets, monitor performance and/or impose penalties on operators that fail to deliver on targets)
- Additional incentives in some countries: Quality factors formally introduced in price cap formulae
- Rationale for quality factors is to reflect link between quality and costs

- Direct quality regulation only
- Quality factors in price control

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Belgium
'QB-Factor' in Price Control of IBPT

Mechanism

- Introduced in 2006
- Priced cap applies to single piece items (private customers)
- Allowed price increase
  ≤ ΔHI * (1 + **QB**) - 1
- HI: "healthy" consumer price index
- **QB: quality bonus**
  = $(QMR - 90)^2 / 1{,}000$
- QMR: sum-product of realized quality and weight per indicator.
- Bonus, not penalty

Indicators

Quality indicators per product category (transit times)	Weight (%)
Priority letter post D+1 (up to 2kg)	40
Non-priority letter post D+2 (up to 2kg)	27
International inbound letter post D+1 (up to 2kg)	16
Registered letter post D+1 (up to 2kg)	10
Parcel post D+2	7
Total	**100**

Belgium
'QB-Factor' in Price Control of IBPT

Objectives

- USP should be able to increase prices beyond the general price (CPI) increase if quality improves → incentive to improve quality

Practical experience and effects

- Practical impact is noticeable: in 2009, factor accounted for about 2.5 %-pts. of the total allowed price increase (that was 7.6%)
- Quality (D+1, priority mail)
  - increased from 75% in 2006 to 92% in 2006 (i.e. before quality factors existed)
  - Stable at 92-93% D+1 since 2006
- Prices (20g, D+1): increased from EUR 0.42 in 2001 to EUR 0.59 in 2010

► Summary

- Relatively simple and transparent
- Practical impact noticeable, but relatively low compared to theoretical impact
- Quality was stable (causality?)

Italy

’Q-Factor’ in Price Control for Poste Italiane

Mechanism

- Introduced in 1996
- Applied to four baskets (single and transactional mail; direct mail; newspapers and periodicals; parcels)
- Allowed price increase (simplified)
  = initial price level * (1 - x + **Q** + RPI)
- X: productivity factor
- **Q: quality factor**
  $Q = Q_{realized} - Q_{standard\ (D+1)}$
- Factor depends on D+1 performance, can be positive or negative (no limits!)
- Condition: Price increases only, if reliability target (D+3) is met

Indicators

Quality indicator		Standard (%) 2009-2011
Product	% of items delivered within	
Priority mail (posta non-massiva)	1.: D+1	89.0
	2.: D+3	99.0
Bulk mail (correspondenza massiva)	1.: D+3	94.0
	2.: D+5	99.0
Registered mail (posta raccomandata)	1.: D+3	92.5
	2.: D+5	99.0
Assured mail (posta assicurata)	1.: D+3	93.0
	2.: D+5	99.0
Parcels (pacco ordinario)	D+5	94.0

Italy
'Q-Factor' in Price Control for Poste Italiane

Objectives

- Ensure quality of postal services for consumers (apparently)

Practical experience and effects

- Although factor is not limited, factor ranged between ± ~5 %-pts.
- Quality (D+1, priority mail): increased from 82% in 2001 to 92% in 2010
- Prices (20g, D+1): decreased from EUR 0.62 (2001) to EUR 0.60 (2010)
  → apparently quality factor was dominated by other factors (X?)

► Summary

- Relatively simple but not transparent to public
- Practical impact relatively low despite strong impact in formula
- Quality increased (causality?)

Portugal

‘QS Indicator’ in price control of ANACOM

Mechanism

- Introduced in 1995
- Applied to reserved services (until full liberalisation)
- Allowed price increase (simplified): $\Delta P \leq \Delta CPI$ - **QS**
- **QS: quality factor**
- Complex calculation using various indicators and different quality standards (minimum; target)
- Factor is limited by definition:
  min: 0%
  max: 1%

Indicators

Quality indicator	Weight (%)	Standard 2008-10 (%)	
		Min.	Target
Transit time non-priority Mail (D+3)	45.0	95.5	96.3
Transit time non-priority Mail (mainland) (D+1)	15.0	93.5	94.5
Transit time priority mail - MAM (D+2)	4.0	84.0	87.0
Non-priority mail not delivered	5.0	2.3	1.4
Priority mail not delivered	3.0	2.5	1.5
Transit time newspapers + periodicals (D+3)	11.0	95.5	96.3
Transit time intra-community cross-border mail (D+3)	3.5	85.0	88.0
Transit time intra-community cross-border mail (D+5)	3.5	95.0	97.0
Transit time non-priority parcels (D+3)	5.0	90.5	92.0
Waiting time at post offices	5.0	75.0	85.0

Portugal
'QS Indicator' in price control of ANACOM

Objectives

- Introduced to avoid cost cuttings at the expense of quality, and to compensate customers in case of quality reductions

Practical experience and effects

- In practice, factor was generally 0 (except 2003 and 2006)
- Quality (D+1, priority mail): stable around 95% (2001 to 2010)
- Prices (20g, D+1): increased from EUR 0.42 (2001) to EUR 0.47 (2010)

► Summary

- Relatively complex, but transparent to public
- (Almost) no impact of the factor in practice
- Quality stable (causality?)

UK

‘C-Factor’ in price control of Postcomm

Mechanism

- Introduced in 2003
- Applied to private customer products (not for business/access products)
- Allowed price increase (simplified)
  ≤ inflation - X - K + **C** + PP + G
- K: carry over factor
  C: quality factor
  PP: pension deficit factor
  G: volume factor
- Complex calculation using various indicators
- Factor is limited to max. 5% of allowed revenues

Indicators

Indicator	Weight	Standard
1st class stamped and metered transit time (D+1)	34%	93.0%
2nd class stamped and metered transit time (D+3)	18%	98.5%
Standard parcel transit time (D+3)	1%	90.0%
European International Delivery (D+3)	7%	85.0%
Postcode area delivered floor (1st class with 90.5% at D+1)	10%	100.05
Collection completion (% of collection points served each day)	10%	99.9%
Delivery completion (% of delivery routes completed each day)	10%	99.9%
Correct delivery (% of items delivered correctly)	10%	99.5%

UK
'C-Factor' in price control of Postcomm

Objectives

- Incentivize Royal Mail in order to keep the level of quality and not to increase productivity at the expense of quality

Practical experience and effects

- Estimation of Q for 2010: 3.2%-pts. (of allowed revenues in basket A)
- Quality (D+1, priority mail): very volatile (2001- 2010): between 85% and 95%
- Prices (20g, D+1): increased from GBP 0.27 (2001) to 0.41 (2010)

► Summary

- Relatively complex, but transparent to public
- Formula allows for strong impact in theory
- C-factor had relatively small impact of factor in practice, dominated by other effects
- quality volatile (causality?)

REIMS agreement

Quality factor within REIMS terminal dues system

Analysis based on 1998 REIMS II contract

Mechanism

- Introduced in 1997
- Negotiated originally between 13 European national postal operators. Current state of agreement?
- Applies to cross-border priority letters
- Reduction of terminal dues according transit time performance
- Q factor is a penalty
  - Full terminal dues if targets are met
  - Up to 50% reduction in terminal dues (max. reduction of only 80% of standards are met)

Indicators (1998 version)

Public postal operators (destination country)	Transit time	Quality standard	
		1998	1999-2000
Group A: AT-DK-NO-FI-IS-IE-LU-BE-NL-SE-CH	D+1	90%	95%
Group B: DE-FR-IT-PT-UK	D+1	85%	90%
Group C: ES-GR	D+1	80%	85%

Quality factor within REIMS terminal dues system

Objectives

- Implement quality control system
- Incentive for postal operators to improve transit time for cross-border letters
- Ensure “value for money” among postal operators

Practical experience and effects

- Quality (D+3, priority mail):
  - increased between 1997 and 2011 for all 43 users of UNEX quality control system (which is also used for REIMS quality control)
  - increased as well for major routes between REIMS II-participants

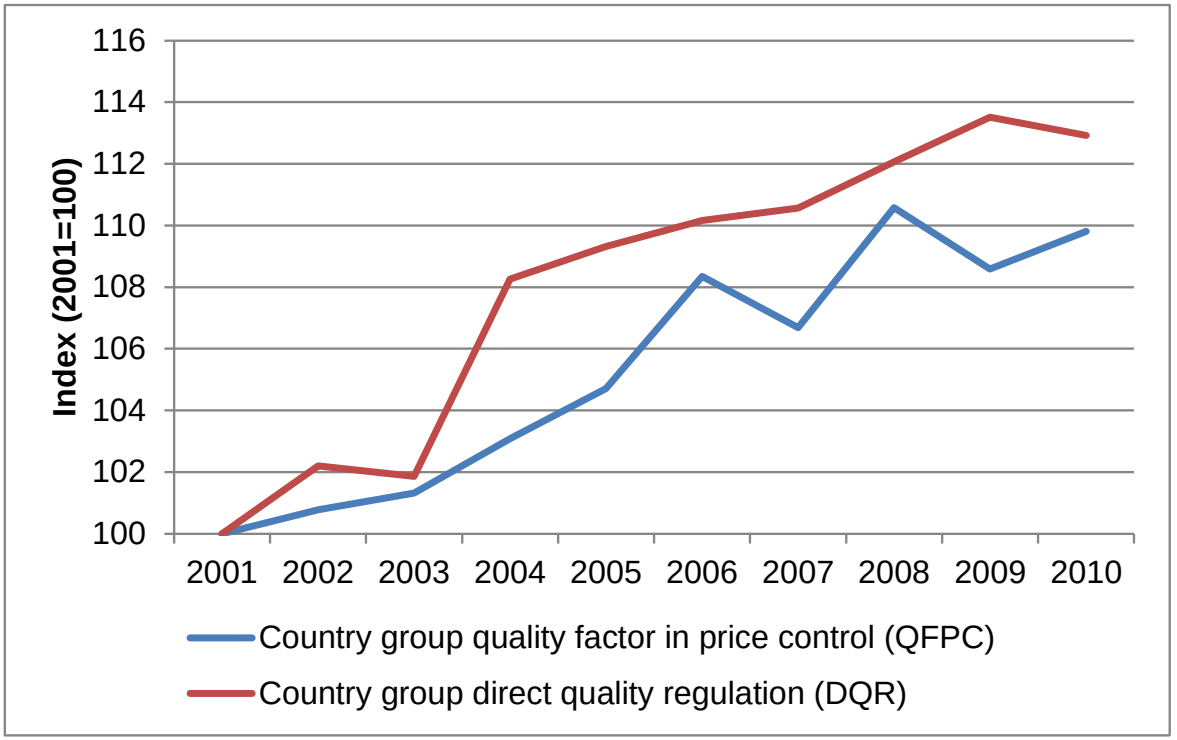
► Summary

- Relatively complex agreement, not transparent to public
- Strong increase in quality performance
- Positive effect of REIMS on quality undisputed among postal operators

Conclusions

Not clear that quality factors are best way to control quality

Development of routing time FSC, 20g, 2001-2010



Source: WIK

Base: TOP EU15 letters markets
DQR group includes AT, BE (2001-2005) CZ, DE, DK, ES, FI, FR, HU, NL, SE, UK (2001-2002)
QFPC group includes BE (2006-2010), IT, PT, UK (2003-2010)

Compare quality in countries with and without quality factors

- No substantial differences
- On average, performance improved more in countries without quality factors!
- No clear evidence that quality factors have helped to achieve objectives of improving QoS and avoiding cost cuts at expense of QoS
- Not clear that benefits of quality factors justify complexity of those systems

Conclusions

Analysis of alternative means to control quality recommended

- Price controls should create incentives to become more cost-efficient – but not (ceteris paribus) at expense of cut-backs in quality
- In most countries, procedures for monitoring and controlling quality in place, independent of price regulation
- Integrating regulation of prices and quality intellectually appealing (proper service for money!) …. but
  - Complex: How much exactly should quality reductions be penalized? How deal with exogenous influences?
  - Practical evidence suggests integrating the two tasks does not work better than doing them separately
- Further research recommended to compare alternative means, including
  - ‘naming and shaming’
  - penalties
  - proviso of cancellation (withdraw approval if quality deteriorates)

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