

The scope of the Economic Replicability Test

Introduction

This is the fourth paper in our series on the European Commission's recommendation on the ex-ante economic replicability test (ERT). The first paper reviewed the implementation of the ERT by national regulatory authorities (NRAs) and its incorporation in the [European Electronic Communications Code](#) (EECC). The second assessed the implication of copper withdrawal on the ERT. The third extended this to consider the replacement of copper with fibre-based wholesale services as the anchor product and its relevance to the ERT.

This fourth paper extends this analysis further by reviewing a range of wholesale access problems that the ERT addresses in practice. In the European Commission's recommendation concerning aspects of broadband investment issued in 2013¹ ("2013 Recommendation") the focus of the ERT was the specific non-discrimination obligations designed to safeguard competition in downstream retail broadband markets. As observed in the previous papers, however, NRAs have in fact applied ERTs beyond that narrow regulatory access context.²

A key question that this raises is whether the observed, more general use of the ERT by NRAs is consistent with the EECC directive. That is, does its wider application promote efficient investment and innovation in next generation broadband services?³

Looking forward, the EC is currently updating the 2013 Recommendation to align it with the EECC. In addition to addressing the EECC, it is proposed here that the updated recommendation should also address the ERTs application to a wider range regulatory access contexts.

In this paper we consider the scope of the access problems that the ex-ante ERT might address by:

- Reviewing a sample of NRAs' use of the ERT to identify the scope of its use; and
- Considering whether this scope might promote efficient investment and innovation in line with the policy intent of the non-discrimination obligations set out in the EECC.

¹ Commission Recommendation of 11 September 2013 [on consistent non-discrimination obligations and costing methodologies to promote competition and enhance the broadband investment environment \(2013/466/EU\)](#)

² For the avoidance of doubt, the present paper does not limit the use of the term ERT to its focus on the specific context set out in the 2013 Recommendation. The term ERT here encompasses ex-ante margin squeeze test as applied by NRAs, and which is consistent with BEREC's definition of the ERT as set out in [BEREC Guidance on the regulatory accounting approach to the economic replicability test](#), 5 December 2014.

³ EECC, recital point 193.

2013 Recommendation application of the ERT

As a reference point for the subsequent discussion, Spain provides an example of the application of the ERT as set out in the 2013 Recommendation, which the following diagram illustrates.⁴

Illustration 1

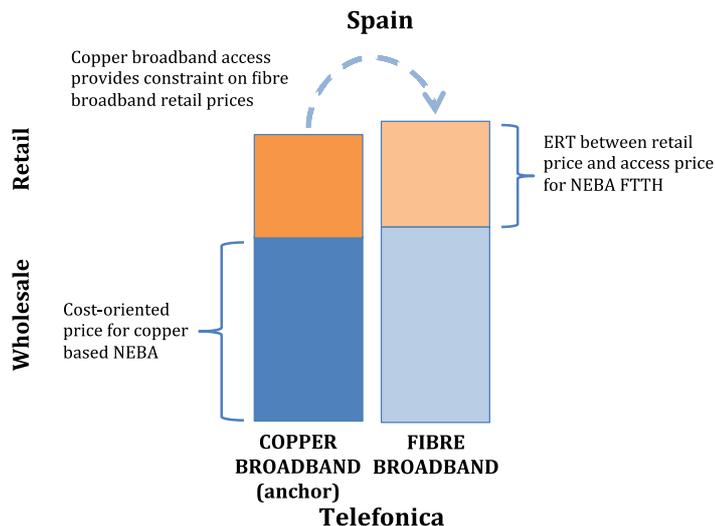


Illustration 1 shows that the price for the wholesale copper broadband input (copper based NEBA⁵), is regulated to be cost orientated, whereas the price for the wholesale fibre broadband input (NEBA FTTH) is not directly regulated.⁶ Conversely, the ERT is not applied to the retail-wholesale margin for the copper broadband anchor service, whereas it is applied to the retail-wholesale margin for the fibre broadband service.

The diagram also suggests that the copper broadband service places a constraint on the retail price of the fibre broadband service. This is consistent with the operation of the ERT as set out in 2013 Recommendation. Slovenia and Sweden similarly apply the ERT to fibre broadband and cost-orientated pricing to the copper broadband in accordance with the 2013 Recommendation.

Mixing ERTs and cost-oriented prices on the same value chain

⁴ In Spain there is a national price cap on Telefonica's copper services and there is the requirement for it to offer fibre at a price limited by an ERT, except in 66 "Ultrafast Broadband (UFB) municipalities". In the UFB municipalities there is considered to be sufficient competition from at least two other fibre and/or cable networks such that price regulation on Telefonica's fibre services is not required.

⁵ *Nuevo Ethernet de Banda Ancha* (New broadband Ethernet)

⁶ Discussion based on [Commission Decision concerning case ES/2018/2131: wholesale central access provided at a fixed location for mass-market products and wholesale high-quality access provided at fixed location in Spain – remedies](#)

Some NRAs extend the application of the ERT beyond the context described above to also apply the ERT to the copper broadband anchor service. Austria is an example where the NRA has combined two ERT scenarios, as the following diagram illustrates for wholesale local access (WLA).⁷

Illustration 2

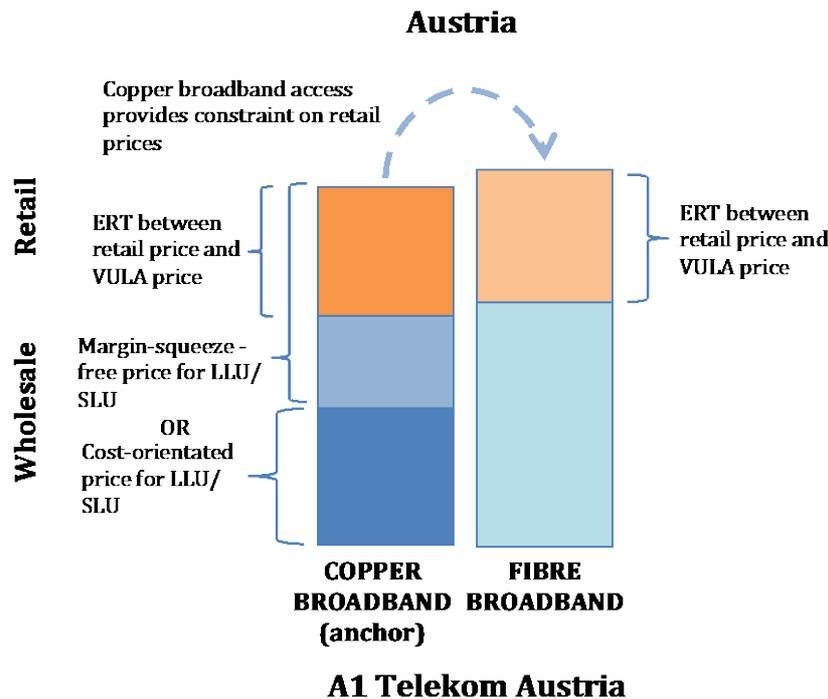


Illustration 2 shows that the Austrian NRA applies the ERT to both copper and fibre broadband services to determine the price for virtual unbundled local access (VULA) as well as potentially local and sub-loop unbundling (LLU/SLU). As the EC notes in response to the NRA's draft market review (5th round)⁸:

As regards the price control remedy, for LLU/SLU TTK [the Austrian NRA] proposes to impose the minimum price of cost-orientation (Bottom-Up FL-LRAIC24) (€8.16 per line/month) and a margin-squeeze-free price. The model price of €8.16 considers only those areas of Austria where there is actual take up of LLU/SLU. The increase of the regulated wholesale price should only be

⁷ Illustration 2 is drawn from the EC's decision dated 30.6.2017 concerning

[Case AT/2017/1987: Market for wholesale local access provided at a fixed location in Austria](#)

[Case AT/2017/1988: Market for wholesale central access provided at a fixed location for mass-market products in Austria](#)

Comments pursuant to Article 7(3) of Directive 2002/21/EC

⁸ *ibid.* pg 8.

relevant for new connections. Prices for VULA should be set according to an economic replicability test (ERT) with economies of scale adjustments. ...

Illustration 2 shows how the ERT and the margin-squeeze-free price test overlap for the copper based service, as described in the quote. There are two overlapping ERTs addressing VULA and LLU/SLU along the copper broadband value chain.⁹ The NRA imposed these additional tests as it was concerned that A1 Telekom Austria could use its SMP to place downstream competitors in a margin squeeze and that competition law would not provide sufficient protection.¹⁰

The above quote also highlights that the Austrian NRA proposed to impose the minimum of the ERT price (i.e. the retail price minus the avoided retail cost) and the cost-orientated for LLU/SLU. This rule was adopted because the ERT price could be less than cost orientated price for LLU/SLU. In particular, the NRA had determined in the previous market review (4th round) that the ERT price was less than the cost oriented price because of competitive pressure from mobile broadband and cable networks on retail prices. This, though, is not the case in the recent market review (5th round).

As a general point, this highlights the importance of ensuring that the ERT, margin-squeeze-free and cost-oriented prices are calculated using consistent costing methodologies. If the costing methodologies are not consistent then the comparison of the respective prices would not be like-for-like and it would raise the risk that the SMP operator or the downstream competitors might not recover their costs.

The inclusion of the ERT for copper based service is intended to protect competition in the downstream retail market by lessening the risk of predatory pricing or margin squeeze. However, maintaining an ex-ante ERT on copper based broadband may lead to other operators continuing to seek access to wholesale copper services and offer copper based broadband rather than switching to fibre based broadband. Such outcomes may be inconsistent with the EECC objective of promoting efficient investment and innovation in next generation broadband services.

The EC emphasises this point in its decision concerning the determination when it notes¹¹:

In principle, regulation of wholesale access prices should be consistent and predictable along the value chain. Failure to ensure consistency may be detrimental to sending the right build or buy signals and promoting infrastructure investments and competition, especially where retail-minus regulation of the lower rungs of the investment ladder (in combination with intense retail price competition) may discourage further network roll-out and the take-up of layer 2 products anticipated by TKK.

The Commission therefore urges TKK to closely monitor market developments and migration towards layer 2 access products and adjust the imposed price control, if appropriate.

⁹ As an aside, the net effect of overlapping the LLU/SLU and VULA ERTs is a "wholesale ERT" for the active elements of the VULA service - i.e. it is an ex-ante ERT between the wholesale price for VULA and LLU/SLU inputs.

¹⁰ The Austrian NRA set out its view in [TKK Decision M1.5/15-115](#), para 2.5.3.1 that the SMP operator, A1 Telekom Austria, has the incentive to engage in a margin squeeze at the retail level.

¹¹ *ibid.* pg. 11

A further risk raised by mixing ERTs and cost-orientated prices for the wholesale copper inputs is that it may place a floor under the retail price and lessen the effectiveness of the copper anchor as a constraint on retail fibre prices. That is, A1 Telekom Austria may be unwilling to reduce its retail prices if this would result in LLU/SLU being priced below cost. In this case, other operators could slightly reduce their retail prices below A1 Telekom Austria's and gain market share, because A1 Telekom Austria may be unwilling to respond.

The Irish NRA, ComReg, demonstrates an expanded version of the Austrian example by mixing more ERTs and cost orientated prices along the copper broadband value chain for wholesale local access (WLA).¹²

Mixing ERTs and cost-orientated prices on both copper and fibre broadband services

The Italian NRA, Agcom, mix ERT and cost-orientated prices along both the copper and fibre broadband value chains for WLA as illustrated in the following diagram.¹³

Illustration 3

¹² Discussion based on ComReg decision D10/18, 19 November 2018, for Wholesale Local Access (WLA) provided at a Fixed Location, paragraph 7.1381.

¹³ Discussion based on *Commission Decision concerning case IT/2019/2181-2182: Wholesale local access provided at a fixed location and wholesale central access provided at a fixed location for mass-market products in Italy*
https://circabc.europa.eu/ui/group/2328c58f-1fed-4402-a6cc-0f0237699dc3/library/179ba7c0-d63a-46ab-95da-698522674fdc?p=1&n=10&sort=modified_DESC

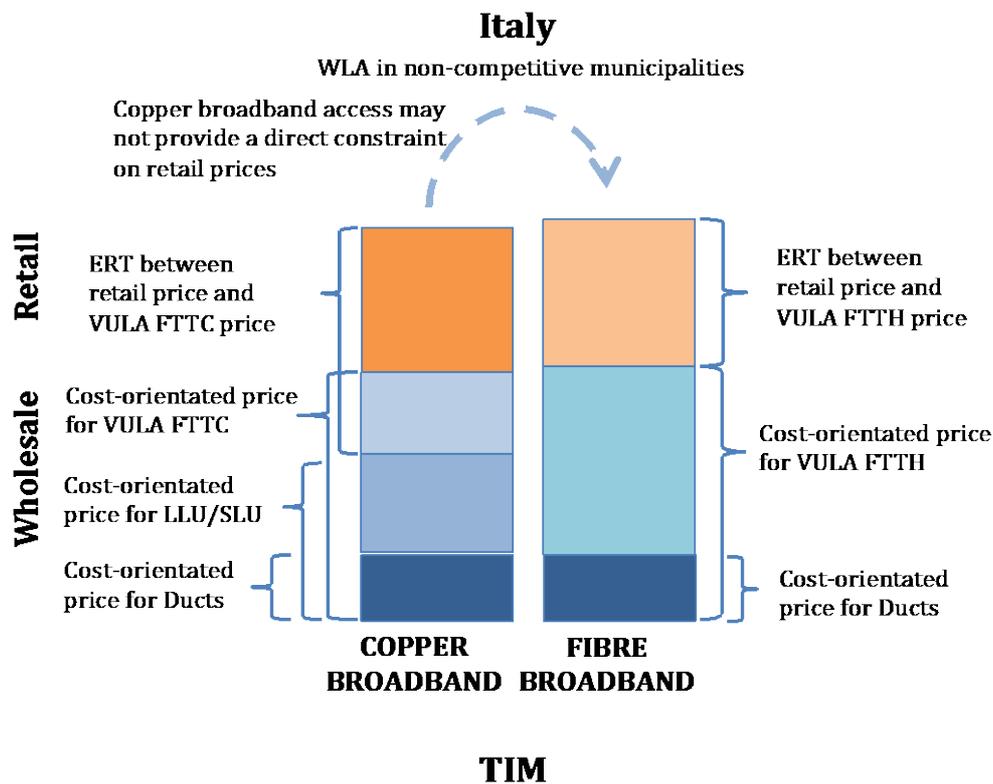


Illustration 3 shows that the wholesale price for access to ducts, LLU/SLU, as well as fibre to the home (FTTH) and fibre to the cabinet (FTTC) VULA are cost orientated. Furthermore, as the diagram indicates, the ERT is applied to LLU, SLU along the copper broadband value chain, and FTTH services along the fibre broadband value chain.¹⁴

The mixing of ERT with cost orientated prices places a floor under the retail prices that TIM can charge for copper and fibre broadband services in non-competitive areas. That is, the minimum retail prices that TIM can charge in non-competitive areas is relevant ERT added the cost-orientated price for for LLU/SLU and FTTH. In contrast, the Austrian example cited above differs in that its the access price for LLU/SLU is determined by thee minimum of the ERT and cost-orientated prices. In either case, this may lessen the relevance of any competitive dynamics and demand in determining retail prices.

The role of the ERT - pricing flexibility and protecting competition

Under the EECC and the 2013 Recommendation the ERT is an instrument designed to promote efficient investment and innovation in next generation access networks. It promotes investment in next generation access by providing SMP operators with flexibility to set access prices above cost. The ERT also protects downstream service providers from the SMP operator engaging in anti-competitive

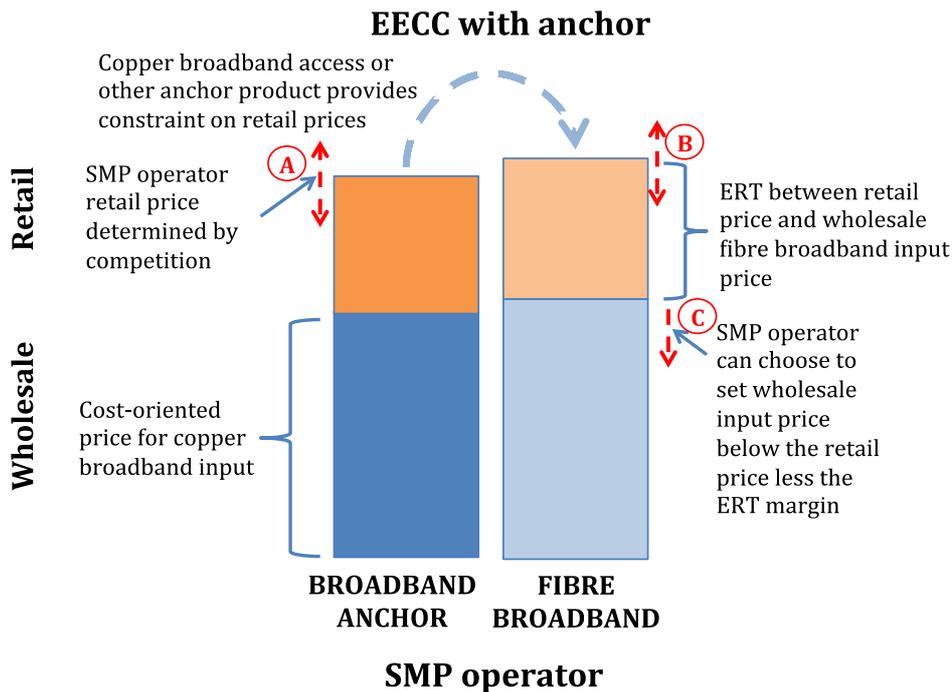
¹⁴ ibid. pg. 9

margin squeeze by ensuring they have the economic space to offer competing services using the regulated wholesale access products as inputs.

It is these two competing objectives (protecting competition and providing SMP operators with pricing flexibility) that the EECC aims to balance. However, as the preceding discussion highlights, some NRAs have applied the ERT in combination with cost-based pricing along the same value chain with the aim of providing service providers with greater protection against anti-competitive margin squeeze. This comes at the potential cost of reducing the SMP operators' pricing flexibility when compared with the approach described in the EECC.

To recap, the EECC incorporates the ERT into the set of non-discrimination obligation where the SMP operator offers an anchor service that would act as a constraint on the retail price. The following diagram illustrates the general set up.

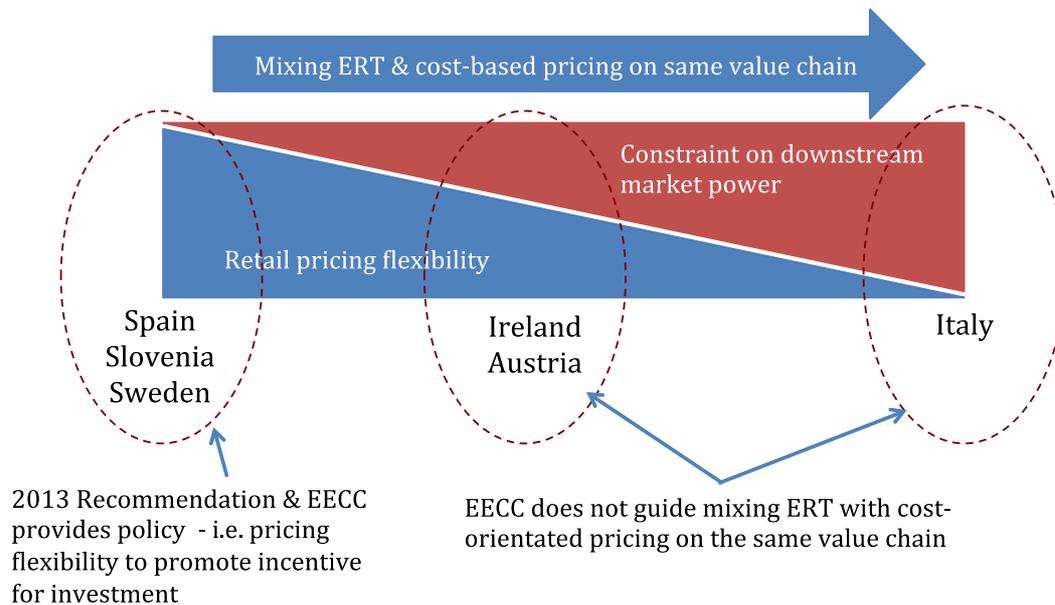
Illustration 4



Under the EECC, as shown in Illustration 4, the SMP operator has the pricing flexibility to set its own retail prices at points A and B in response to the competition in the downstream retail market. In addition, the SMP operator can set its fibre wholesale input price at point C as long as it is less than the relevant retail price minus the ERT margin. Service providers are provided protection by having wholesale access to the anchor product at a cost-oriented price and the ERT protecting access to fibre broadband service.

As noted above, the application of the ERT by the NRAs in Spain, Slovenia and Sweden aligns with the approach set out in the EECC. However, Austria, Ireland and Italy have mixed cost-orientated wholesale pricing with the ERT along the broadband anchor value chain. This is expected to reduce the SMP operator's flexibility to set its retail prices, at point A in the above illustration, in response to the competition and demand compared with the EECC approach. In addition, the NRA in Italy takes this one step further by also mixing cost-orientated wholesale prices with the ERT for the FTTC product. This further reduces the SMP operators pricing flexibility at points B and C. These reductions in pricing flexibility are summarised in the following diagram.

Illustration 5



The consequence of mixing the ERT and cost-orientated pricing is that it limits the SMP operator's ability to set retail prices compared with the level of flexibility allowed for in the EECC. Its retail prices can no longer simply be determined by the level of competition (or not as the case may be) and general market demand conditions in the retail market.

Whether or not this reduction in pricing flexibility has a detrimental effect on investment and innovation in next generation access networks will depend on extent to which the retail prices are efficient and reflect market demand, particularly for different quality services. This is essentially the question that the EC addresses in its response to the Austrian NRA's decision, particularly the recommendation that the NRA ... *closely monitor market developments and migration towards layer 2 access products and adjust the imposed price control, if appropriate*. In other words the NRA is to replace the SMP operator's pricing flexibility with flexible regulatory settings that are responsive to changing market conditions.

Whether mixing has a detrimental effect on investment in next generation networks will depend on the current level of fibre network deployment. If mixing is introduced after a fibre network has been deployed, then it would not have a detrimental effect going forward as the investment has been sunk. However, if the fibre network has not been deployed, then even an expectation of the introduction of mixing might reduce an SMP operators incentive to invest going forward.

Conclusion

As noted in the introduction, the key question is whether the mixing of the ERT with cost-orientated pricing is consistent with the EECC directive - i.e. does mixing promote efficient investment and

innovation in next generation broadband services ?¹⁵

The previous and current papers in this series highlight that NRAs have applied the ERT across a greater range of situations than addressed in the 2013 Recommendation and the non-discrimination obligations as set out in the EECC. In particular, some NRAs have mixed ERT and cost-based pricing on the same value chain in order to protect competition, but this reduces pricing flexibility.

Whether mixing the ERT with cost-oriented prices promotes efficient investment and innovation in next generation broadband services depends on the specific circumstances. Even though mixing may reduce pricing flexibility, and therefore the incentive for the SMP operator to invest, it may provide competitors with additional protections, which in turn may promote their investment.

Particular circumstances that should be considered include the extent of the coverage of the fibre network, and the protections provided by competition law. If the fibre-network coverage is nearing ubiquity then mixing the ERT and cost based measures may not have such a detrimental effect on future investment by the SMP operator. If ex-post margin-squeeze tests under competition law, coupled with cost based regulation of upstream inputs, are not sufficient to constrain the conduct of an SMP operator, then the ERT may still be required.

Any guidance, therefore, provided by the EC or NRAs should address the broader application of the ERT.

¹⁵ EECC, recital point 193.

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