
Price regulation of unbundled broadband services

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Agenda

Outline of regulatory issues

Price regulation in the EU vs. US vs. Asia

Application in African countries

Conclusions



In every continent Broadband now plays a central role in national policies and investments

- Wide recognition of the productivity improvements of ICT generally and of broadband in particular
- Emphasis given to the role of investment in new networks (next generation networks) and consequently the investment environment for operators
- Recognition of the considerable scale of investments needed and the number of years this requires
- As markets develop, goal setting tends to move beyond availability and affordability toward actual adoption
 - E.g. The European Commission's target is that by 2020, 50% of households in the EU have taken out a subscription at speeds of more than 100 mbps



Network access will remain a key area of regulatory focus

- Regulation has always been a key driver of telecommunications investment .
- There is a tension between regulatory objectives as illustrated by the economic concepts of static and dynamic efficiency:
 - *Short term*: to promote competition and to enhance social welfare
 - *Long term*: to promote investment and dynamic efficiency
- In 2014 The Nobel prize of Economic Sciences recognized the importance of sound economics behind market analysis and regulation:

“[T]here is in general a trade-off between promoting competition to increase social welfare once the infrastructure is in place and encouraging the incumbent to invest and maintain the infrastructure.” (Laffont and Tirole, 2000)



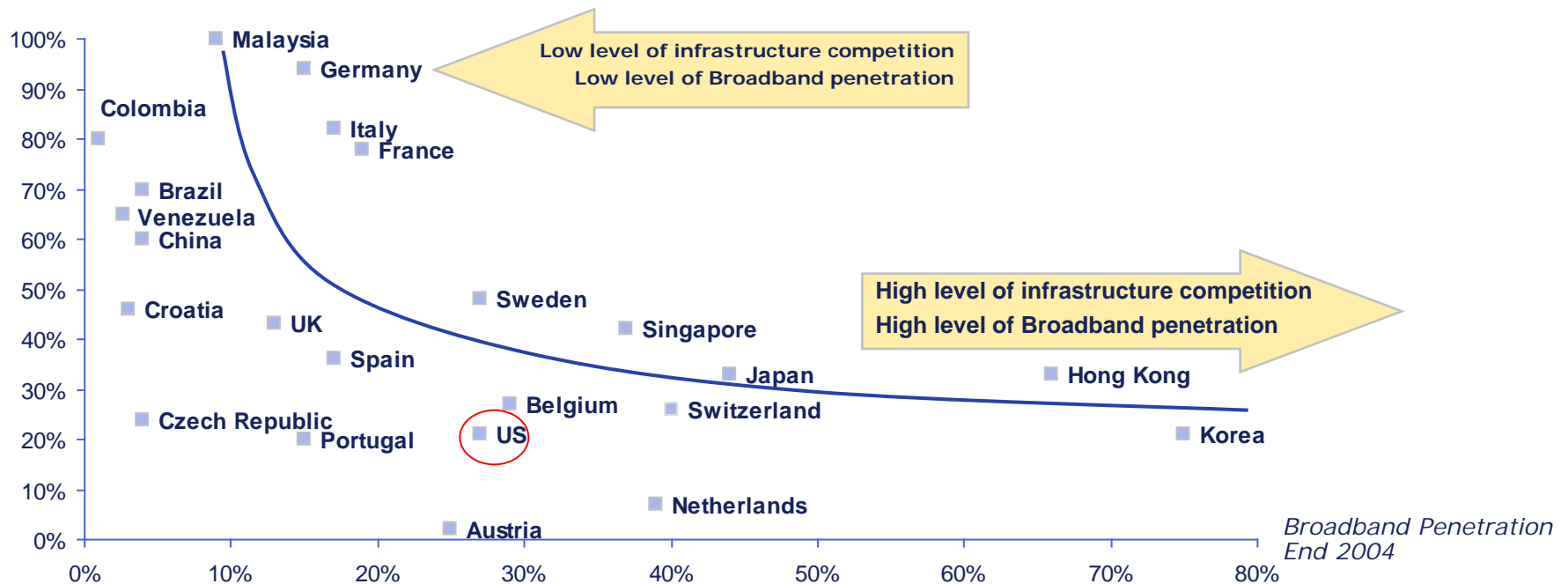
The transition to NGN's put again local loop unbundling (LLU) at the center of debate

- Definition of LLU: the mandatory offering by network operators of the local loop of their network to other operators.
- Rationale
 - Incumbent: not to extend market power
 - Entrant: "ladder of investment" theory
- Past experience with LLU before NGN's
 - US (1996-2003) abandoned afterwards
 - Asia investment in Broadband infrastructure
 - EU (from 2000)
 - Switzerland never adopted ULL
 - Japan (from 2000) and Korea (from 2002)



Historically intense infrastructure based competition has been a strong driver for fixed Broadband penetration

Difference in penetration of DSL and Cable (in %) – End 2004



Source: Broadband uptake Report, 2005, Arthur D Little



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LLU regulation in the US resulted in a decline of infrastructure investment

Federal Communications Commission (FCC) Policy Goals:

Ubiquitous availability of broadband access to the Internet for all Americans

A regulatory environment promoting investment and innovation

Telecom Act of 1996

- Mandated:
 - Interconnection
 - Resale
 - Unbundled access to network elements
 - Number Portability
 - Universal service contributions
 - 911 rules
- Extensive unbundling and resale obligations on RBOCs to encourage competitive entry into local markets

Market evolution

- No significant development of infrastructure based competition for local telecom services
- Market exit of numerous resellers
- Asymmetric regulation between cable and telecom operators
- Decline in long distance market revenues
- Decline of investment in the public telecom market after 2000

Wireline investment

- At its peak in 2000, wireline capex had roughly doubled to \$79 billion from \$39 billion in 1996. However, in 2001, wireline investment began to collapse. By the time it bottomed out in 2004 at \$25 billion, wireline investment had been cut to a mere 32% of its peak and 64% of its 1996 level.
- Wireline capex began to revive in 2005, after the FCC removed many requirements for unbundling fiber and UNEP



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In spite of the “recognised success” of open access elsewhere the US never adopted unbundling again

- The main form of inter-platform competition for broadband has been between cable and ADSL. The United States were the only country where there were more cable than ADSL customers at December 2005
- In the United States the “winning theory” was that two competitors with a strong base in a technology they owned were enough to discipline each other, and much preferable to the risks and uncertainties of unbundling, price regulation and continuous monitoring of anticompetitive abuses that it entailed

Competition in the US is now said to be heading to a duopoly. Is two enough?



Broadband policy of Asian governments proved to have significant positive effects

Role of the Government	 Korea	 Japan	 Singapore	 Netherlands	 Belgium	 Sweden	 USA	 Italy	 Germany
Penetration – end 2004	79%	43%	42%	39%	30%	27%	27%	14%	14%
Formulate clear objectives									
Regulatory role <ul style="list-style-type: none"> ■ Digital rights ■ Standardization 									
Invest in Broadband infrastructure									
									
									

Public: 250mio€

Public: 1.2bn€

Public: 1.5bn€
Private: 46bn€

Public: 15bn€ per annum

Public: owns 3 operators

Public: 30mio€, 75€ per user

Compared to Europe, Asian governments invested actively in the telecom infrastructure

Source: Arthur D. Little Broadband Uptake 2005

The EU regulatory framework tried to promote competition allowing service based competition to step in

Market Review

- When competition is not effective, regulatory measures aiming to address market failure can be imposed on dominant firms by NRAs, after conducting a thorough market review

SMP

- After defining the relevant markets, NRA must assess competition in each market, and particularly whether any firms in those markets have Significant Market Power

Ex ante Regulation

- If the market is found not to be competitive, then SMP operators will be subject to ex ante regulatory obligations (remedies) in order to stimulate competition. These remedies must be based on the nature of the problem identified, proportionate and justified

Ex ante access and price regulation must be set up but at the same time safeguard investment

Intercon.,
Access

Obligation to supply

- to all eligible licensees who request the services

Obligation to publish Reference Offers

- Reference Interconnection Offer or Reference Access Offer depending on the service
- To be in a form approved by the regulator

As in retail
regulation

Obligations of non-discrimination and transparency

Price control obligation

- Will be cost-based or cost-oriented in most cases
- Generally they should be based on TSLRIC+ standard, but "Pure LRIC" may be applied to termination rates.

ULL, MTR

Accounting separation obligation

In the new world of fiber regulatory options can raise a number of questions

- Forbearance as in the US model or unbundling as the EU model prescribes (or something in between)?
- Would the EU framework be useful for African countries? How could it be applied?
- If the EU framework was applied to fixed broadband markets in African countries what would likely happen?
- Operators rolling out fiber in Metro rings in major African cities should be mandated to open their networks?
- How many players do you think are needed to have competition in one specific market?



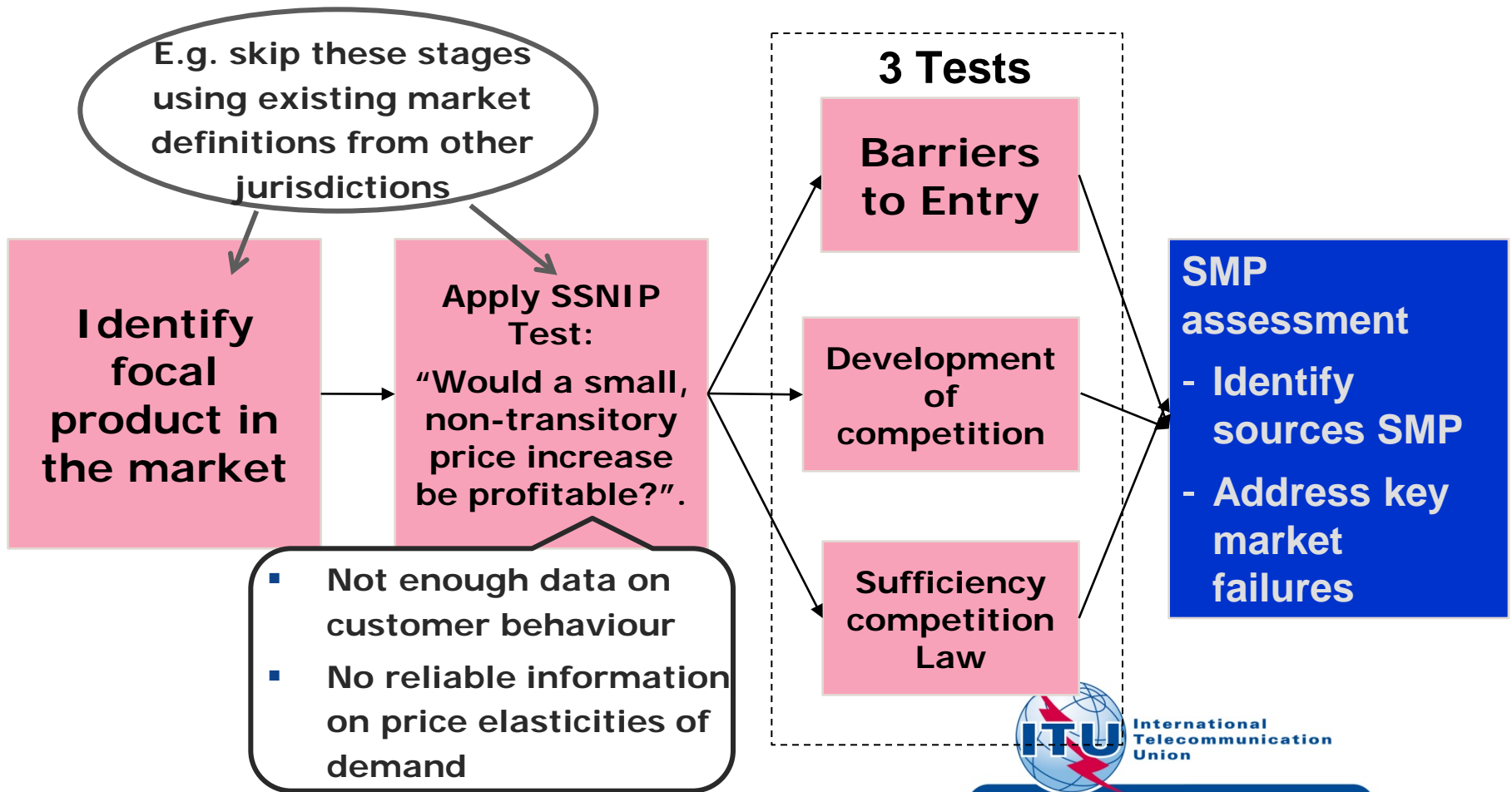
There are a few good and compelling reasons for avoiding or limiting ex-ante regulation of broadband markets ...

- High transaction costs of ex-ante regulation (including regulatory mistakes)
- Tendency to limit investment incentives
- Inability to predict market developments
- Dominance in new broadband markets not yet established
- Some protection offered by existing regulation of narrowband markets or temporary retail price regulation (entry level of fixed broadband services)
- Risk of creating a culture of regulatory dependency

...and at the same time attract the necessary investment

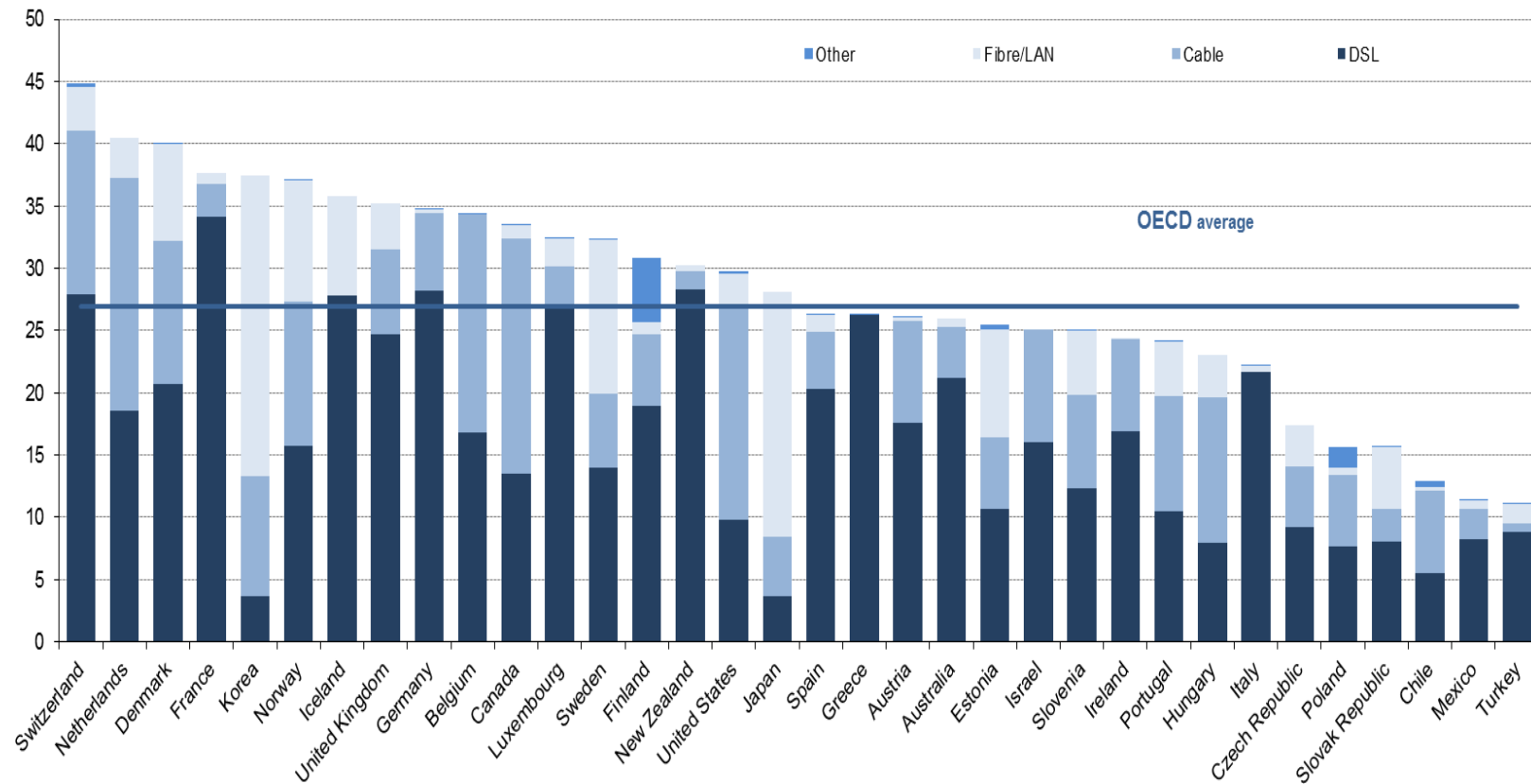


The EU framework may be adapted but a better approach is to find alternative ways of attracting the necessary investment



So who's achieving the best outcome in broadband penetration?

OECD Fixed (wired) broadband subscriptions per 100 inhabitants, by technology, December 2013



Source: OECD

Conclusions

- **Golden Rule**

- Study carefully each country specific characteristics (even in a context of regional harmonization)

- **Ex ante vs ex post?**

- Promote sustainable competition
 - Promote efficient investment
 - Safeguard consumers/citizens benefits
 - Start capacity building of ex post regulation
- Which comes first?*

- **Refrain to regulate if not necessary, but engage in the promotion of innovative solutions**

- Cooperation
- Dialogue
- Infrastructure sharing options
- Co-investment



Obrigado
Thank You
Merci
Gracias



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