Incentive Regulation and Investment in Network Infrastructures:

Comments on Ingo Vogelsang

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1. Key Points (1/3)

Basic Considerations (Selective Perception):

1. Investment benefits are potentially high relative to benefits from efficient pricing (i.e., the Harberger triangle is small compared to the entire market surplus).
2. Regulatory time consistency problems are a source of investment risk (regulatory hold-up-problem: Keeping promises is difficult)

1. Key Points (2/3)

Regulation under Full Commitment ("Perfect" Price Regulation):

1. Two types of Investment (substitutes/bypass and complements/ upstream and downstream services)
2. Two types of regulation (bottleneck and end-user/retail)
3. General Message: Tight regulation generally tends to reduce investment incentives, soft regulation increases them.

   Particular exception: tight (soft) retail regulation reduces (increases) competitive downstream investment, while tight (soft) bottleneck regulation reduces (increases) competitive downstream investment (slides 9 & 10)
4. Hence: Intermediate bottleneck regulation, soft retail regulation

1. Key Points (3/3)

Regulation without Commitment (Imperfect Price Regulation):

1. Full commitment is not possible (a variety of Barry Weingast's paradox of a strong State: A government that is strong enough to guarantee rights is also strong enough to take them.)
2. Doubts on the compatibility of incentive regulation and efficient investment incentives, especially for long-term investment.

2. Comments (1/4)

Q: What to say if you agree with almost all of the analysis?

A: Try to be bold enough to progress it into some directions.

<u>3 Directions:</u>

- Sources of the intensifying (!) commitment problem,
- Institutional safeguards,
- Some notes on state aid control/universal service subsidies.

2. Comments (2/4)

Sources of the intensifying commitment problem:

- Price cuts are more perceptible, tangible or visible, and therefore more popular, than benefits from investment (perception issue).
- Price cuts directly benefit consumers across the board. Investment and innovation (new products, better quality) increase consumer surplus in different ways and extent differs across consumers/consumer groups (distribution issue).
- Price cuts directly reduce producer surplus (international firms) and directly increase consumer surplus (local consumers).

2. Comments (3/4)

Institutional Safeguards (how to design sustainable institutions):

- Independent regulators and courts,
- Asymmetric veto rights (strategic delegation):

Proposal by NRA:	*markets with substantial cross-border externalities*	*markets without substantial cross-border externalities*
does not lead to deregulation	**veto powers of EU COM**	**veto powers of EU COM**
leads to deregulation	**veto powers of EU COM**	**no veto powers of EU COM**

3. Comments (4/4)

Notes on State aid control/universal service subsidies:

- Many cases of broadband subsidies subject to state aid control.
- Economic justification for state aid?
- No true market failure (usual “efficiency defense” for state aid), but regulatory failure:
- In the absence of long-term contracts/commitment, ex ante payments may be warranted to mitigate hold-up risks,
- Hold-up risks are of particular relevance for network infrastructures as they cannot be shifted from one location to another (unlike other plants such as *Nokia*, etc.).
- State aid for infrastructure may mitigate regulatory risks as may PPPs (!?)

Thank you for your attention!

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