

Regulatory Impact Assessment in the Telecommunication regulation



1. What is RIA
2. Content of RIA
3. RIA in telecommunication regulation
4. Competition assessment in telecommunication regulation
5. Issue in RIA
6. Concluding Remark

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1. what is RIA? (1)

From OECD documents,

- Regulatory Impact Analysis (RIA) is a systemic approach to critically assessing the positive and negative effects of proposed and existing regulations and non-regulatory alternatives.
- As employed in OECD countries it encompasses a range of methods.
- At its core it is an important element of an evidence-based approach to policy making.

1. What is RIA? (2) content of RIA



The Japanese Guidelines require that an evaluation report shall contain...

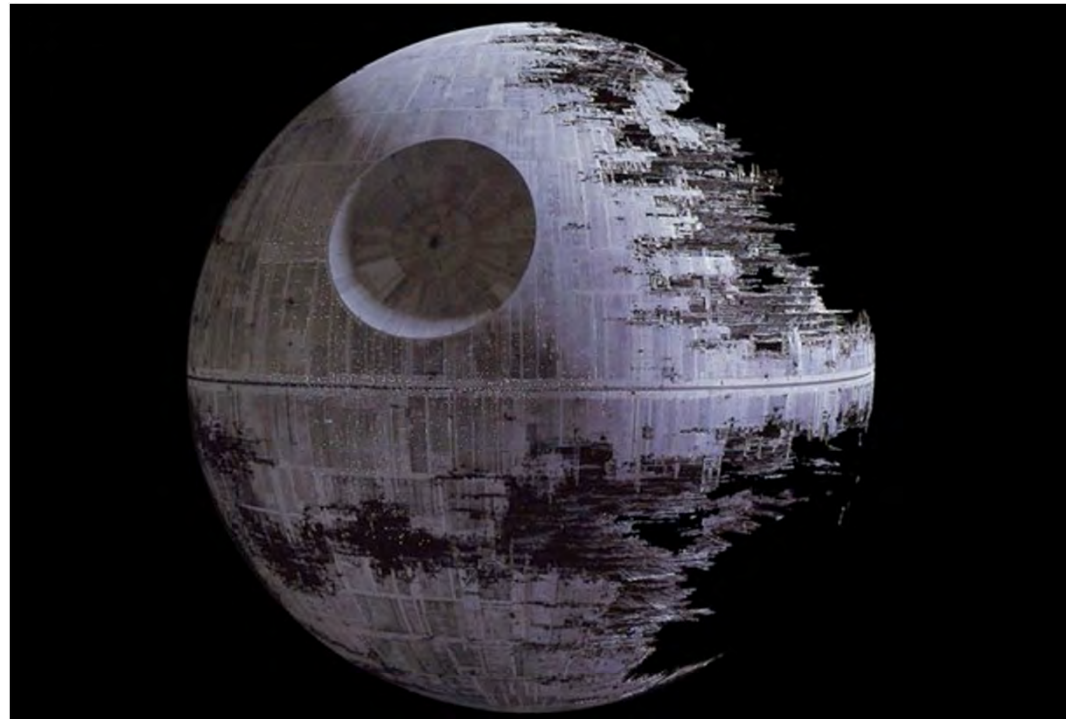
- **Purpose, contents and necessity of regulations**
- **Analysis of costs and benefits**
Setting the “Baseline”, Analyzing each element of costs and benefits, and Including secondary or indirect impacts
- **Analysis of cost-benefit relationship**
Cost-benefit Analysis, Cost-effectiveness Analysis, Cost Analysis
- **Comparison with alternatives** (It is desirable.)
- **View of experts and other related matters**
- **Time or conditions for review**

1.(3)Example of RIA White House rejects ‘Death Star’ petition

<https://petitions.whitehouse.gov/response/isnt-petition-response-youre-looking>



There is a petition by more than 25,000 people asking US government to build a Death Star in Star Wars!



1.(3) White House rejects 'Death Star'



1. Purpose

To develop space peacefully. And the Administration does not support blowing up planets.

2. Necessity

Natural Monopoly(Necessity might be justified)

3. Cost and Benefit

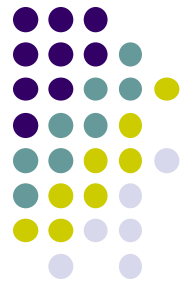
Cost: the construction of the Death Star has been estimated to cost more than \$850, trillion. We're working hard to reduce the deficit, not expand it.

Benefit: why would we spend countless taxpayer dollars on a Death Star with a fundamental flaw that can be exploited by a one-man starship.

4. Alternatives

We already have a giant, International Space Station⁵

2. Content of RIA (1) Necessity of Regulation and Alternative Regulatory Approaches



From US guideline (Circular A-4),

- Necessity of Regulation should be explained whether the action is intended to address a significant market failure
- The major types of market failure include: externality, market power, and inadequate or asymmetric information. but it is not the only reason.
- Other possible justifications include improving the functioning of government, removing distributional unfairness, or promoting privacy and personal freedom

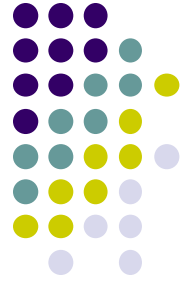
2. Content of RIA (2) Scope of Analysis



- Your analysis should focus on benefits and costs that accrue to citizens and residents of the United States. Where you choose to evaluate a regulation that is likely to have effects beyond the borders of the United States, these effects should be reported separately. The time frame for your analysis should cover a period long enough to encompass all the important benefits and costs likely to result from the rule.

2. Content of RIA

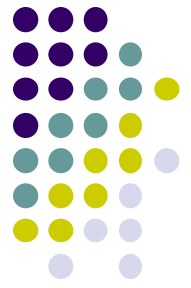
(3) Developing a Baseline



With and without analysis

- You need to measure the benefits and costs of a rule against a baseline. This baseline should be the best assessment of the way the world would look absent the proposed action. The choice of an appropriate baseline may consider
 - evolution of the market,
 - changes in external factors affecting expected benefits and costs,
 - changes in regulations promulgated by the agency or other government entities, and

2. Content of RIA (4) Evaluation of Alternatives



- You should consider and describe the alternative. Alternatives that rely on incentives and offer increased flexibility are often more cost-effective than more prescriptive approaches.
- Importance of alternatives
 - Importance to Choice of adequate alternatives in regulation making to minimize the impact on competition at the early stage.

Ex: *Performance Standards is better than Design Standards*

importance of consideration of alternatives



Alternative consideration has two roles.

1. One is that it makes it easier to compare the results of the impact by regulation with various alternatives.
2. The other, which is more important, is that to promote to consider better regulation from the viewpoint to decrease the economic burden on competition.

2. Content of RIA (5) Assessment of Cost and Benefit



In order to estimate the cost and benefit,

- (1) benefit-cost analysis (BCA) or (2) cost-effectiveness analysis (CEA) are used.
 1. BCA is that both benefits and costs are expressed in monetary units
 2. Cost-effectiveness analysis can provide a rigorous way to identify options that achieve the most effective use of the resources available without requiring monetization of all of relevant benefits or costs.

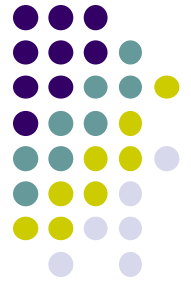
2. Content of RIA

(6) Transparency and Reproducibility of Results



- Because of its influential nature and its special role in the rulemaking process, it is appropriate to set minimum quality standards for regulatory analysis. You should provide documentation that the analysis is based on the best reasonably obtainable scientific, technical, and economic information available. To achieve this, you should rely on peer-reviewed literature, where available, and provide the source for all original information.

3. RIA in telecommunication regulation



- Most telecommunication regulation belongs to economic regulation which modify imperfect competition or information asymmetry or improving competitive environment.
- Then consumer surplus could be a good proxy of the benefit.
→ OFCOM example

3. Example of RIA: Provision of Public Telecommunication Services in Licence Exempt Spectrum (OFCOM UK28 May 2002) (calculating consumer surplus)



- 1) Description of regulation and necessity
 - When 2002, all use of the radio spectrum is subject to licensing under the Wireless Telegraphy Act (1949) unless specifically exempt by regulations.

3. 1) Description of regulation and necessity(2)



- There is a demand, for short-range broadband wireless connections to public telecommunication networks in licence exempt spectrum.
- Current Exemption prevent use of licence exempt spectrum for such applications by specifically prohibiting use of bands for the provision of services to third parties by way of business.

3. 1) Description of regulation and necessity(3)



- Thus there is a need to reconsider the current Exemption Regulations and the possibility of allowing licence exempt public services in the 2.4GHz bands(2002).

- **Objective**

The change in Exemption Regulations is intended to increase the market potential for affordable broadband communications; increase competition and consumer choice; provide a stimulus for innovative radio technologies, and improve the use and overall economic value of licence exempt spectrum.



3. 2) Risk assessment

1) Risk from maintaining the existing regulations (Benefit to change the regulation)

If the UK does not allow these services, UK will fall behind other parts of EU, and that the demand for short-range broadband public access telecommunication services could remain unsatisfied and undeveloped.



3. 2) Risk assessment

2) Risk from changing the existing regulations (Cost to change the regulation)

- The introduction of new entrants in this particular band may interfere with incumbent users

→ intelligent radio devices can dynamically control their access to radio spectrum such that large numbers of compatible terminals can operate satisfactorily even when used within interfering range of one another.



3. 3) Options (Alternatives)

1) Risk assessment

Risk from changing the existing regulations(Cost to change the regulation)

- The introduction of new entrants in this particular band may interfere with incumbent users
- And incumbent users may suffer from interference and they might need to purchase new interference friendly equipment.

3. 3) Options (Alternatives)



- **Option 1:** Remove the prohibition of public telecommunication services from existing Exemption Regulations and allow services to be established in the 2.4GHz licence exempt band, with the minimum possible regulatory constraints, relying on technological solutions to limit congestion.
- **Option 2:** Relaxation of the current Exemption Regulations to allow public telecommunication services to operate in the 2.4 GHz band without a licence, but with a number of conditions to limit how and where the spectrum is used in order to limit congestion. These conditions might include restricting the use of spectrum to indoor applications;
- **Option 3:** Maintain the status quo;

3. 3) Identifying the Benefits and Cost



Benefit

- At present public operators are allowed to access the 2.4GHz licence exempt band in nine European States, the US and Japan, examples of the types of services that could be introduced by public operators: free wifi, bluetooth

Costs:

- interference (technically controlled)

3. 4) costs and benefits to each of different types of radio users, id



Option 1 : Full de-regulation – use of licence exempt spectrum for public telecommunication”

Table 1: Expected Costs and Benefits of Option 1

Business Sector or User affected	Benefits	Costs	Net Benefits
Current End users	<p>Ability to access new services</p> <p>Ability to raise revenue from operating as a public network.</p> <p>Ability to choose whether to subscribe to a public network.</p>	<p>Charges for new services</p> <p>Potentially lower quality of service for existing private RLAN users due to interference</p> <p>Potentially lower reliability of SRDs due to interference</p> <p>Engineering costs of modifying equipment to mitigate interference or change frequency.</p>	<p>Depends on number of licence exempt spectrum users, price and availability of substitutes and levels of interference in areas of existing use.</p>
Public Service Providers	<p>Increased revenues from ability to provide new services.</p>	<p>Cost of new equipment (albeit relatively low)</p> <p>Operating costs</p>	<p>Positive</p> <p>If interference is manageable benefits are likely</p>

Table 2: Expected Costs and Benefits of Option 3

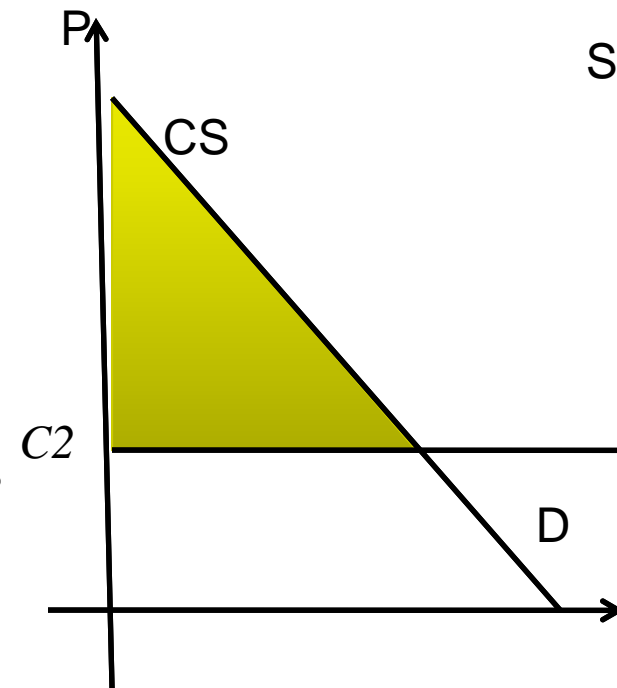
Business Sector or User affected	Benefits	Costs	Net Benefits
Current end users	<p>Continued access to spectrum for private use e.g private RLANs and SRDs</p>	<p>Loss ability to access new services.</p>	<p>Positive for users only wanting private access</p>
Public Service Providers		<p>Loss of ability to provide new high speed internet services</p>	<p>Negative. Loss of revenue from supplying new markets.</p>
Public Service customers		<p>Loss of access to public networks. Loss of new products/service</p>	<p>Negative. Demand for new services unsatisfied.</p>
Equipment Manufacturers	<p>Existing suppliers continue to supply existing market.</p>	<p>Loss of revenue from new customers</p> <p>Loss of access to global market.</p>	<p>Negative</p>

3. 5) Using Consumer Surplus to estimate the benefit



Consumer Surplus=(maximum price-minimum price) x No.of subscribers x 1/2

Estimates for the figures for the consumer surplus calculation are based on publicly available data on prices(monthly fee) and/or subscriber numbers of existing public RLAN services offered by Jippi and Sonera (Finland) Telia (Sweden) and MobileStar (US).

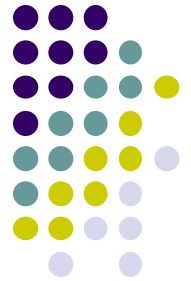




3.(6) Competition assessment

- the entry of new firms and displacement of companies by more efficient competitors can be expected to change the structure of a range of markets.
- Any anti-competitive behaviour would continue to be subject to ex-post competition regulation under the Competition Act 1998. .

4. Competition assessment in telecommunication regulation



- But consumer surplus is difficult to trace and estimation power is very weak.
- Thus in some country, such as U.S. only competition assessment is conducted.

4. Competition analysis in the RIA making (1) What is competition analysis



increased competition contributes to higher economic productivity and growth. In some regulations unduly restrain market activities.

One important step to eliminate these restraints is “competition assessment”: evaluating policies to find those that unnecessarily restrict competition and developing alternative policies that achieve the same objectives, with lesser harm to competition.

4. (2) Basic Idea of competition analysis From EPA guideline,



Analysis of regulatory impact on Competition is

- Does the regulation erect entry barriers that might reduce innovation by impeding new entrants into the market?
- Does the regulation tend to create or enhance market power and reduce the economic efficiency of the market?

4. (2)-2 easier competition analysis From OECD toolkit,



This toolkit introduces two step assessment,

1. “Competition Checklist,” that show when proposed laws or regulations may have significant potential to harm competition.
2. If problem is found within first step, then we go to Step 2. The second step is for governments and decision-makers to revise policies that unduly restrict competition.

4. (2)-2 easier competition analysis From OECD toolkit(2),



“Competition Checklist,” probes three kinds of question,

1. Restrictions on starting new businesses
2. Regulations that affect the ability of businesses to compete
3. Regulations that affect business behaviour by changing the incentive of businesses to act as vigorous rivals.



5. Issue in RIA: case in Japan(1)

What kinds of regulation should be accompanied by RIA?

In the US: important regulation (impact more than \$100million) is mandate to conduct RIA but law is exempt because law is just outline.

In Japan: however, most regulation is written in law. Thus even law, except lawmaker-initiated legislation and cabinet order must be with RIA. Although ministerial order is exempt mainly because it is considered to be unimportant.

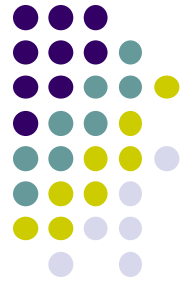
5. Issue in RIA: case in Japan(2)



However if policy maker escape to conduct RIA, they have an incentive to pass ministerial order even if it is important regulation.

(van to sell general medicine via internet)

This regulation is ministerial order and not mandate to conduct RIA despite the large impact on economy and our lives.



5. Issue in RIA:case in Japan(3)

- RIA is important document in Public Involvement
 - Referenda and Cost Benefit Analyses is complement (c.f. Osborne and Turner[2010] consider when both are substitute).
- RIA provide the important information and analysis in policy making. And even draft RIA is under Public comment in US or other OECD country.

But in Japan it is published just before the regulation issued.

5. Issue in RIA: compliance or enforcement issue in RIA



- Compliance is closely linked to good regulatory design, as well as to effective enforcement tools.
- RIA should always include an assessment of compliance prospects.
- Checklists and RIA guidelines must stress the importance of considering compliance when making regulations, and point out that certain regulations should be reconsidered if the prospects for compliance are poor.

5. Issue in RIA: compliance or enforcement issue in RIA(2)



- The probability of enforcing compliance and detecting non-compliance may be low if regulatory agencies have inadequate resources or lack monitoring and enforcement strategies.
- Mexico adopted policies and RIA in Mexico addresses this issue by requiring regulations be backed by sufficient budgetary and administrative resources to ensure their effective implementation and enforcement.

5. Issue in RIA: Has Economic Analysis Improved Regulatory Decisions?



Robert W. Hahn and Paul C. Tetlock (*Journal of Economic Perspectives*—Volume 22, Number 1—Winter 2008—

Observation a: The quality of government-sponsored economic analysis of regulations appears to fall far short of economic guidelines.

Observation b: Economic analysis can improve regulation, but it is not clear whether economic analysis used in regulatory decisions has had a substantial impact.

Dr. John Morrall said information provision by RIA is still very important.

6. Concluding Remark measurement to improve RIA(1)



1. Introduction of score card

How about evaluation by outside institution of government RIA such as Ellig and Morrall [2010] (Assessing the Quality of Regulatory Analysis: A New Evaluation and Data Set for Policy Research <http://mercatus.org/publication/assessing-quality-regulatory-analysis>)

2. Promotion of the fundamental research by funding or grants.

3. Hiring economist and economist interchange among agencies.

6. Concluding remark Accumulating Analytical Skill



Collaboration between Academics and Government is very important for better regulation.

Establishing Regulatory Resource Center in PIDE is very helpful.

6. Concluding Remark : Review of the RIA



Reviewing of RIA systematically is also important

So we try to make some collaboration between JFTC and Pakistan authority such as CCP or ERU

It is important that such institution have some authorities or power that force regulator to accept the review.