



Dynamic Efficiency, Static Efficiency and the Long-Term Benefit of End-Users

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New Propositions From The Commission

During the conference the Commission have put forward a number of economic propositions not considered in the Draft Report.

Telecom has asked me to respond to those relating to static and dynamic efficiency, in particular the propositions that:

- Static efficiency will produce low prices and is therefore more important to consumers than dynamic efficiency.
- Consumers prefer lower prices to new products.
- Competing technologies are wasteful of resources, and consumers would be better off if there was no duplication of networks and technologies.

Weighting Dynamic and Static Efficiency

Empirical evidence:

- Allocative inefficiency is trivial compared with productive inefficiency (see Alam and Sickles 2000).
- Dynamic efficiency gains swamp static efficiency gains (e.g., Hausman 1997, Goolsbee 2000).
- Growth models: the primary source of economic growth is investment in research and development and education (increasing the efficiency with which resources are used), rather than increases in capital and labour (Barro and Sala i Martin 1995; Baumol 2002)

Example: Evans Quigley Zhang (CJE May 2003)

Considers consumer welfare when the regulator sets prices at different levels in the standard endogenous growth model of Barro and Sala i Martin (1995).

Consumer welfare (utility) measured over an infinite horizon to capture all static and dynamic welfare effects.

There is a monopoly supplier of intermediate goods, but the monopoly supplier is replaced when another supplier develops a new (superior) technology.

Investment is required to develop the superior technology and to obtain the position of incumbency in the market.

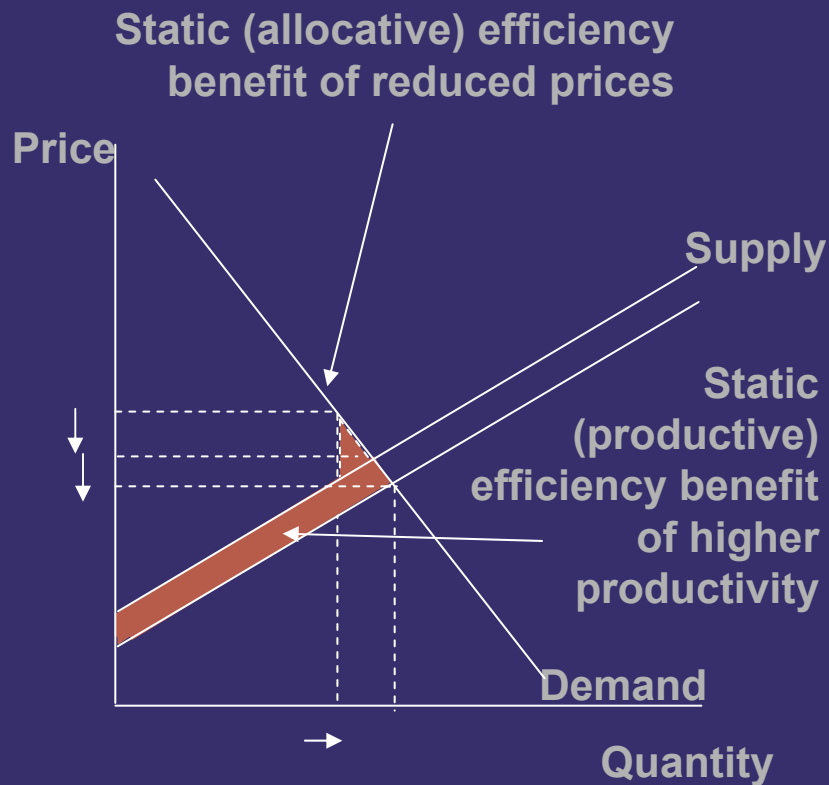
Evans Quigley Zhang (2003) continued

Results

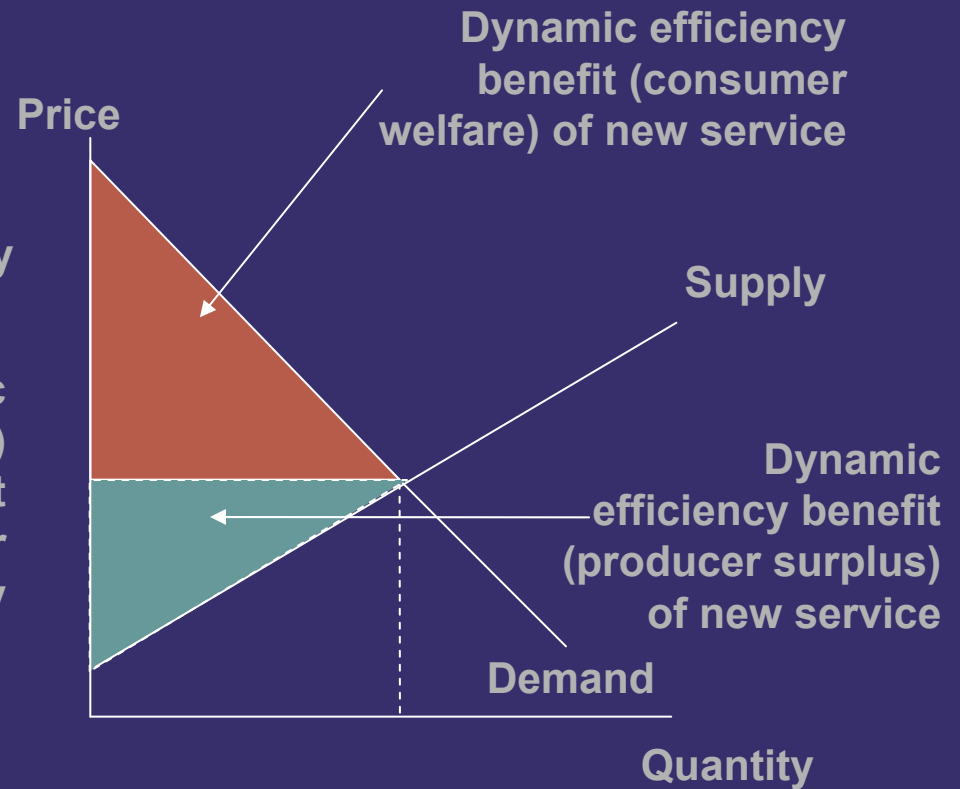
- The optimal regulated price is above the perfectly competitive price but below the pure monopoly price.
- Under perfect competition there is no innovation at all, and consumer welfare is at its lowest point.
- At the pure monopoly price consumers are better off than with perfect competition because there is some innovation, albeit less than the optimal level.
- The optimal price produces a 27 percent increase in consumer welfare compared with perfect competition.

Graphical Representation of Benefits

Static Benefits



Dynamic Benefits



The Trade-Off

1. Static competition provides lower prices in the short term

but,

Innovation is the fundamental driver of lower prices in the long term.

2. Static competition delivers limited price benefits to consumers,

but

dynamic competition delivers both lower prices and new products.

Efficiency of Multiple Facilities

Even if a product is not superior, when the future path of technology is uncertain competing facilities may be efficient

When products are differentiated, consumers receive benefits even if the products provide similar services now. This is because:

- Consumers do not know which technology will provide the best services in the future
- Competition avoids an all or nothing choice that may turn out to be the wrong choice (computers, cell phones, local access)

Examples: Cars and Cell Phones

Cars: Consider a world where, instead of deregulating the car market in the 1980s we purchased a national license to build Ladas and converted every car factory in New Zealand to build them. They were cheap and there would have been static competition. Would New Zealand consumers be better off today?

Cell phones: Over the past decade the price of cell phone handsets has fallen and the technology has improved dramatically.

Differentiation between GSM and CDMA – would consumers be better off without it?

Conclusion

Consumers are comprehensively worse off with regulated prices that inhibit innovation and entry of new products

Entry occurs through the development of differentiated products – consumer acceptance of the new product demonstrates that its introduction was not “wasteful”

The view that static efficiency and low prices are more important than dynamic efficiency and new products cannot be reconciled with mainstream theory and empirical evidence from the scientific literature on economic growth and microeconomics