

DIFFERENTIAL PRICING AND EFFICIENCY



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Abstract

The classic prescription for economically efficient pricing---set price at marginal cost---is not relevant for technologies that exhibit the kinds of increasing returns to scale, large fixed costs, or economies of scope found in the telecommunications and information industries. The appropriate guiding principle in these contexts should be that the marginal willingness to pay should be equal to marginal cost. This condition for efficiency can be approximated using differential pricing, and will in fact, be a natural outcome of profit-seeking behavior.

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Introduction

Recent advances in information technology have rekindled interest in the efficiency of markets as resource allocation mechanisms. Traditional economic analysis typically examines situations where the prevalent technology involves no economies of scope and constant or decreasing returns to scale. In such industries the conventional wisdom "set prices at marginal cost" is both economically viable and the likely outcome of competitive forces.

However, many important industries involve technologies that exhibit *increasing* returns to scale, large fixed and sunk costs, and significant economies of scope. Two important examples of such industries are *telecommunications services* and *information services*. In each of these cases the relevant technologies involve high fixed costs, significant joint costs and low, or even zero, marginal costs [1]. Setting prices equal to marginal cost will generally not recoup sufficient revenue to cover the fixed costs and the standard economic recommendation of "price at marginal cost" is not economically viable. Some other mechanism for achieving efficient allocation of resources must be found.

This paper reviews some key points about how prices should be set in environments of this sort. I examine this