

Cost-Benefit Analysis

Concepts and Practice

FOURTH EDITION

Chapter Four

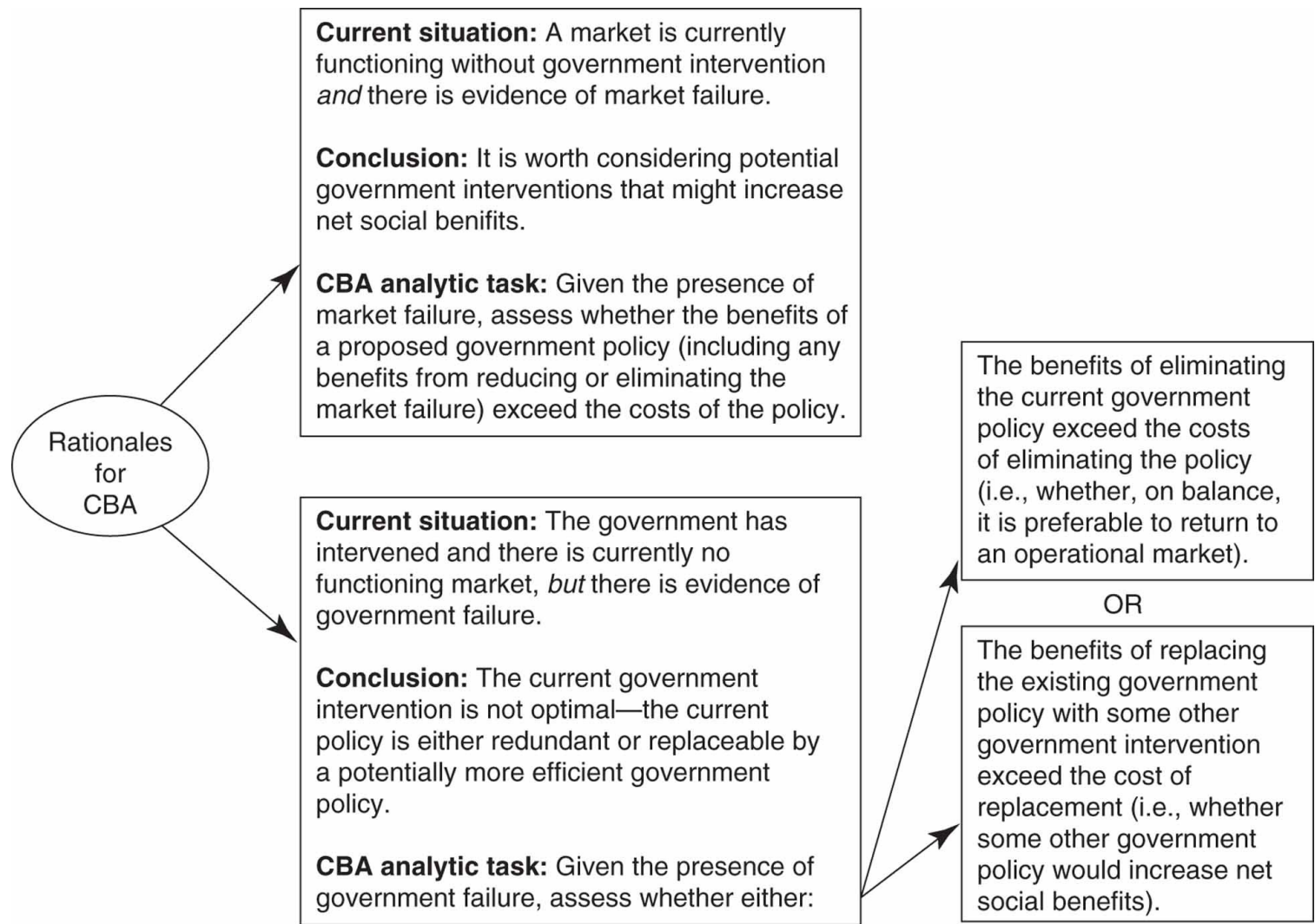
Valuing Benefits and Costs in Primary Markets

PEARSON

Cost-Benefit Analysis: Concepts and Practice, Fourth Edition
Boardman • Greenberg • Vining • Weimer

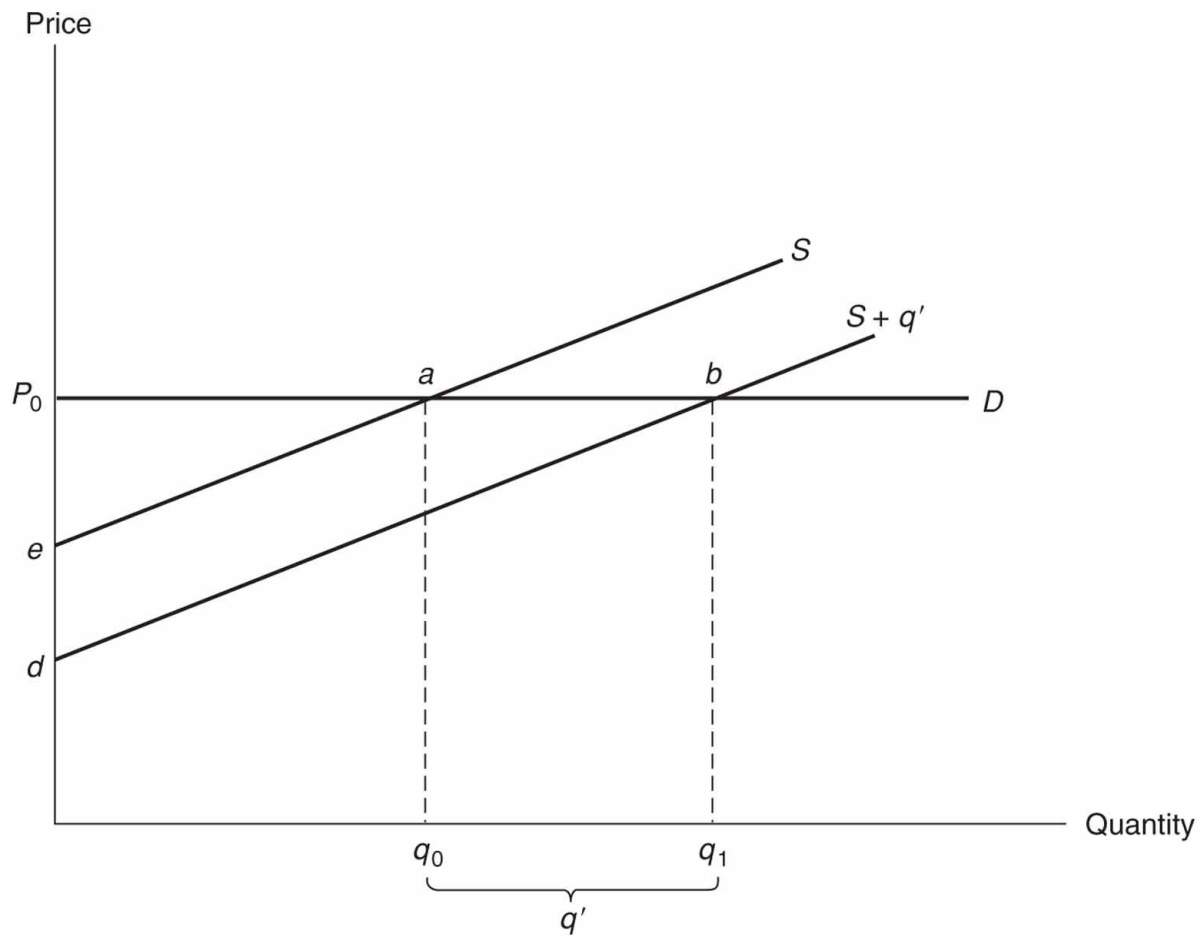
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Figure 4-1 How to Consider Market and Government Failure in CBA



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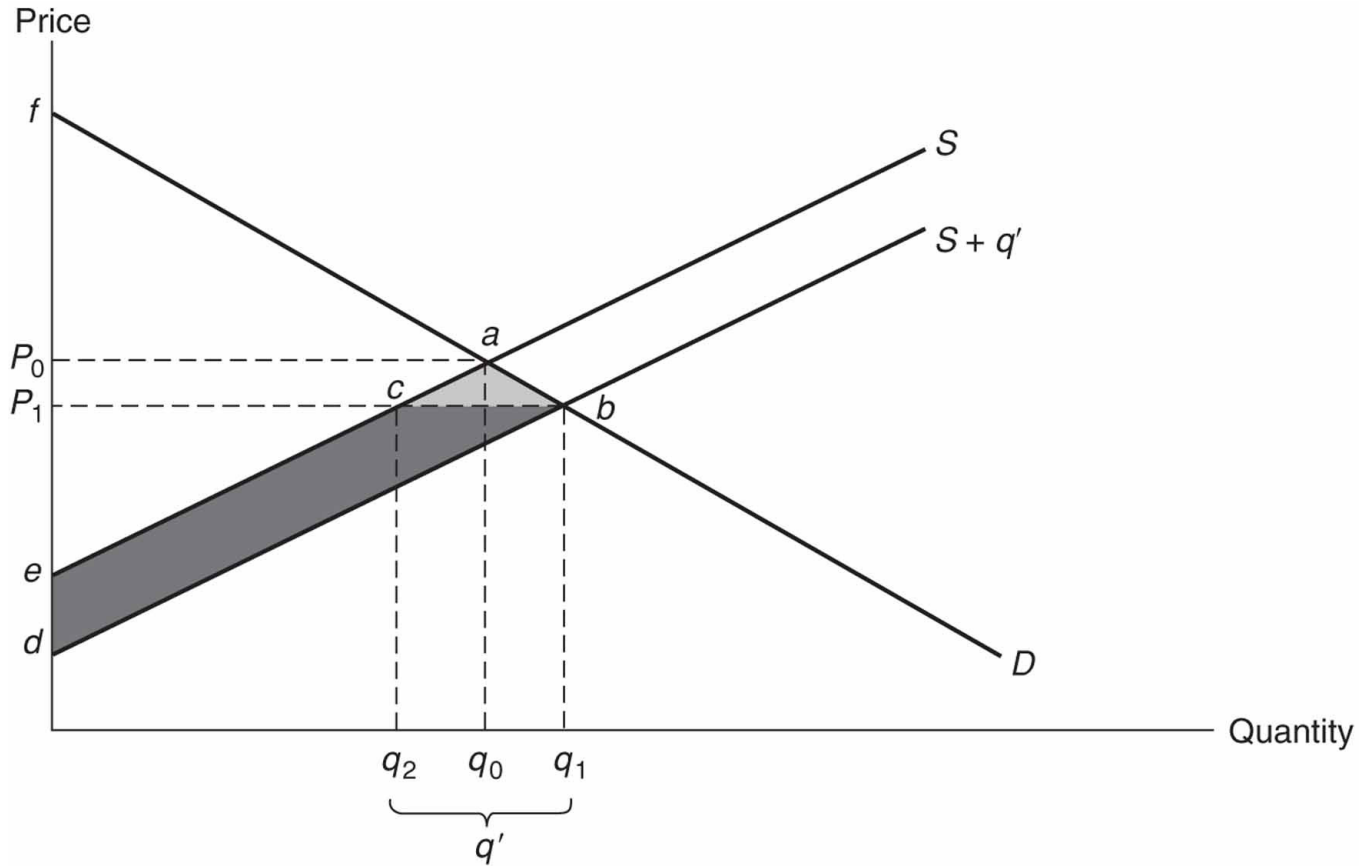
Figure 4-2 Measuring Benefits in an Efficient Market with No Price Effects



Social surplus change (ignoring costs of project inputs to the government):
 Project (a): Direct increase in supply of q' —gain of project revenue equal to area of rectangle q_0abq_1
 Project (b): Supply schedule shift through cost reduction for producers—gain of trapezoid $abde$

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Figure 4-3 Measuring Benefits in an Efficient Market



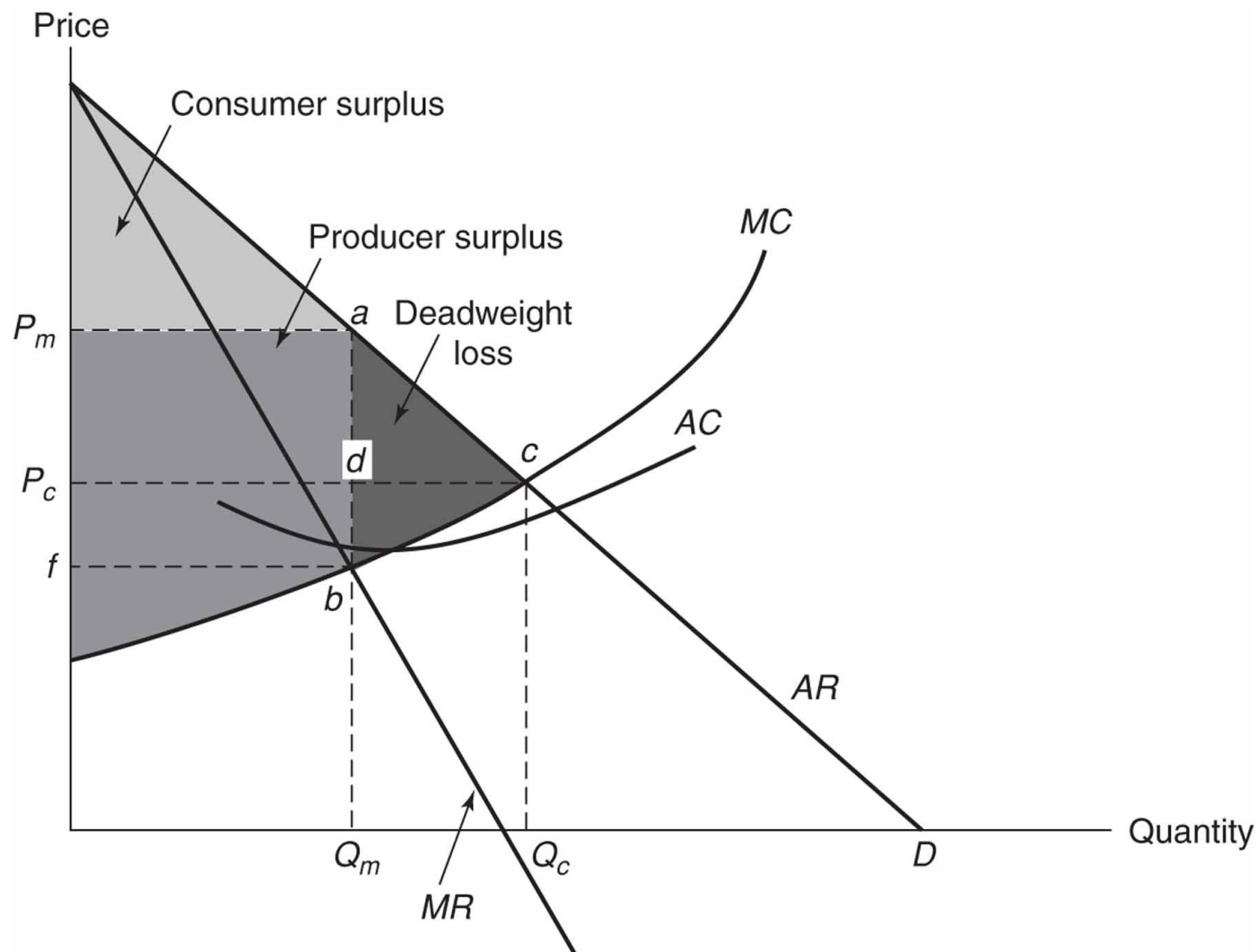
Social surplus change (ignoring costs of project inputs to the government):

Project (a): Direct increase in supply of q' —gain of triangle abc plus project revenue equal to area of rectangle q_2cbq_1

Project (b): Supply schedule shift through cost reductions for producers—gain of trapezoid $abde$

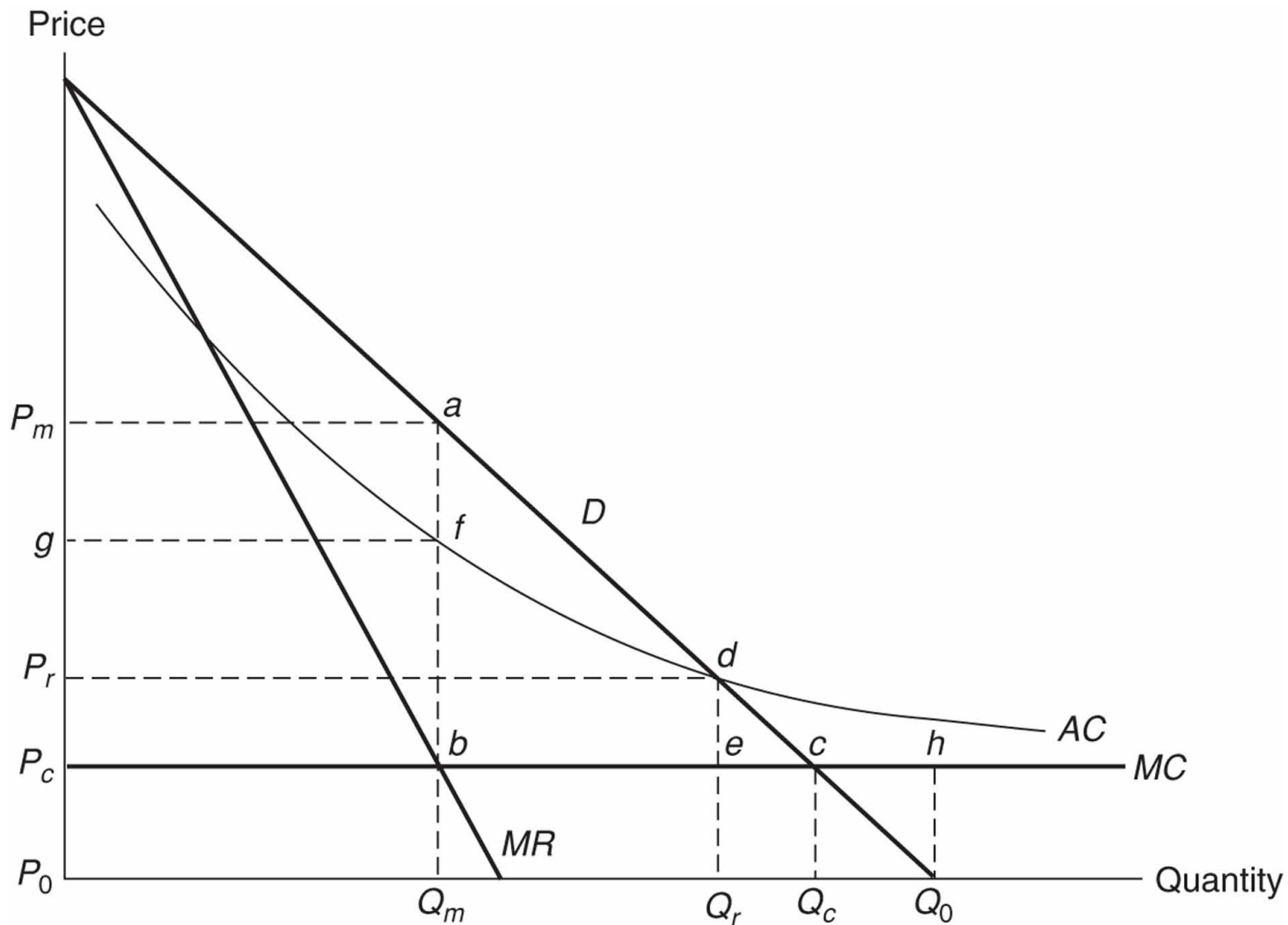
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Figure 4-4 Monopoly



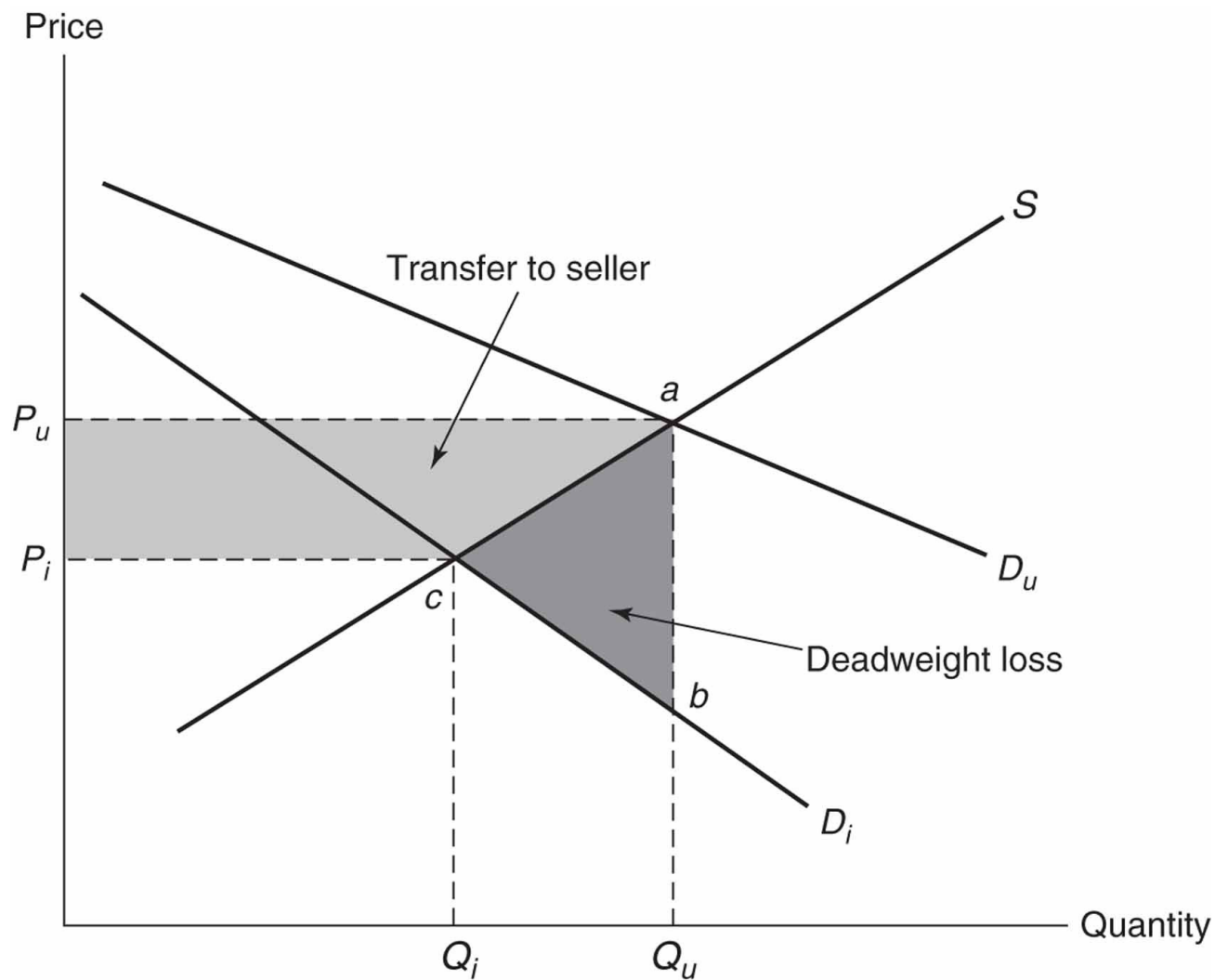
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Figure 4-5 Natural Monopoly



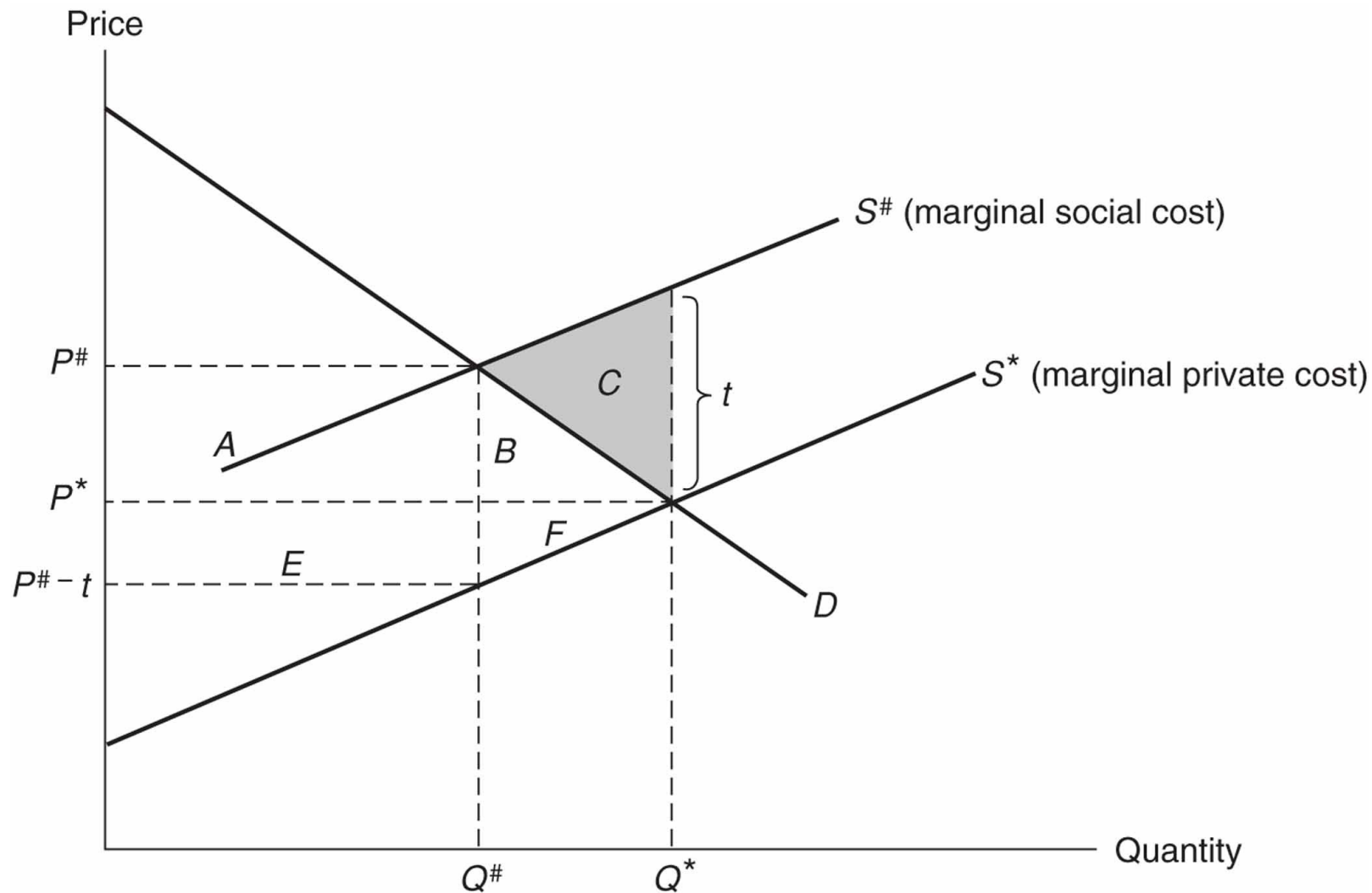
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Figure 4-6 Information Asymmetry



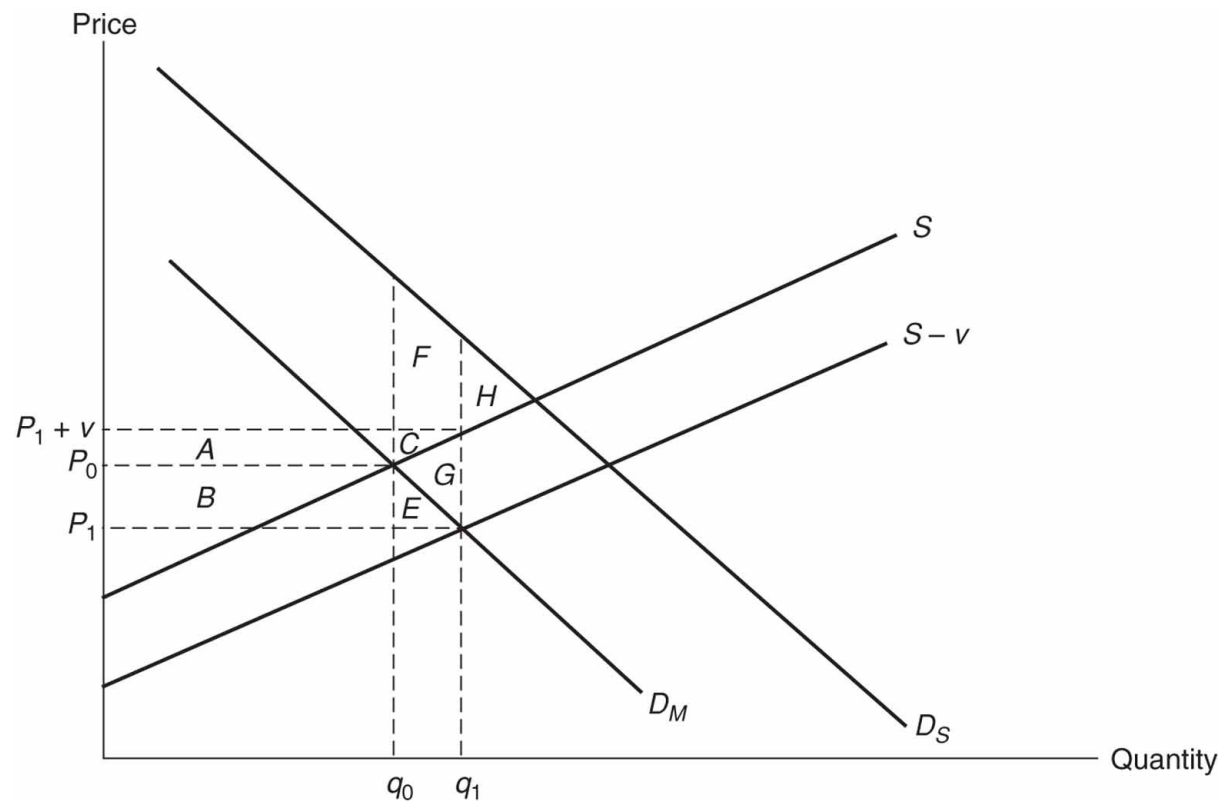
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Figure 4-7 Negative Externality



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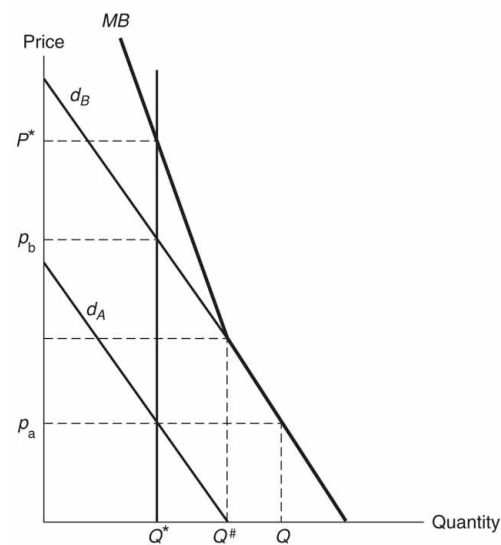
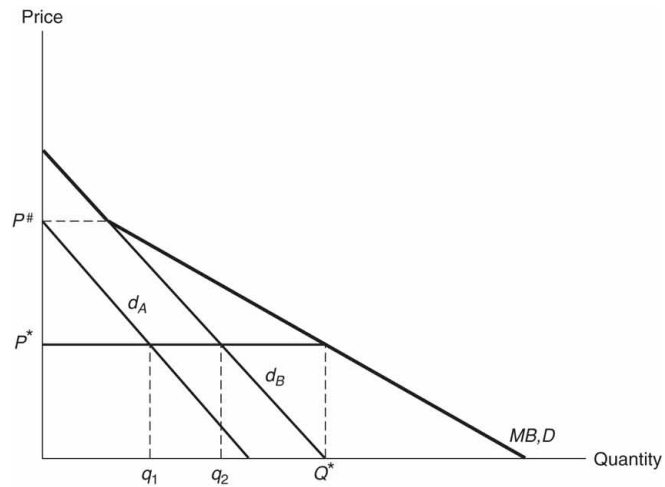
Figure 4-8 Social Benefits for Direct Supply of a Good with a Positive Externality



Gain to consumers in target neighborhood:	$B + E$
Gain to persons in nearby neighborhood:	$C + G + F$
Gain to producers:	$A + C$
Program costs:	$A + B + C + G + E$
Net benefits:	$C + F$

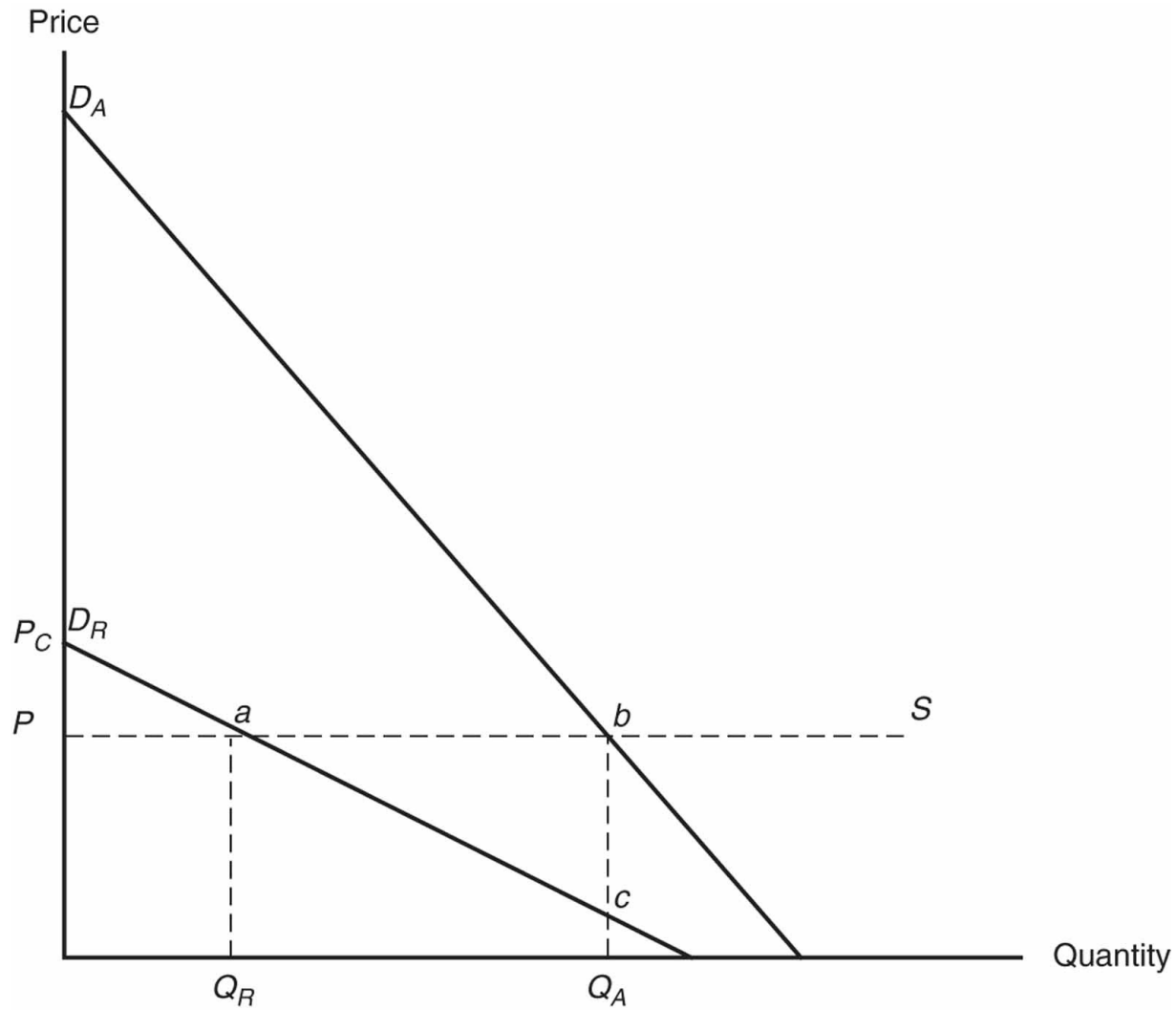
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Figure 4-9 (a) Rivalrous Good (e.g., hamburger) (b) Nonrivalrous Good (e.g., streetlight)



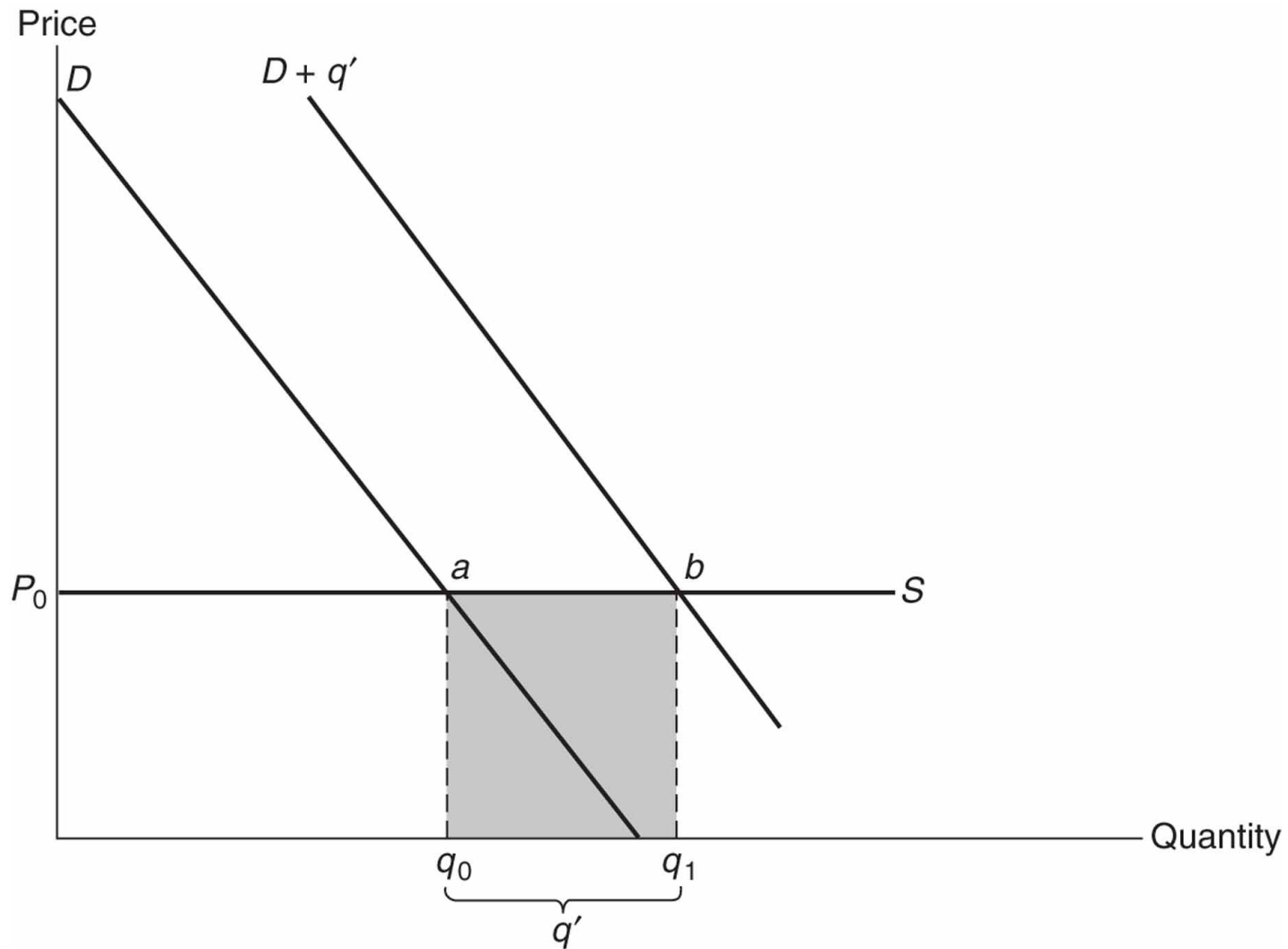
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Figure 4-10 Consumer Surplus in the Presence of Gambling Addiction



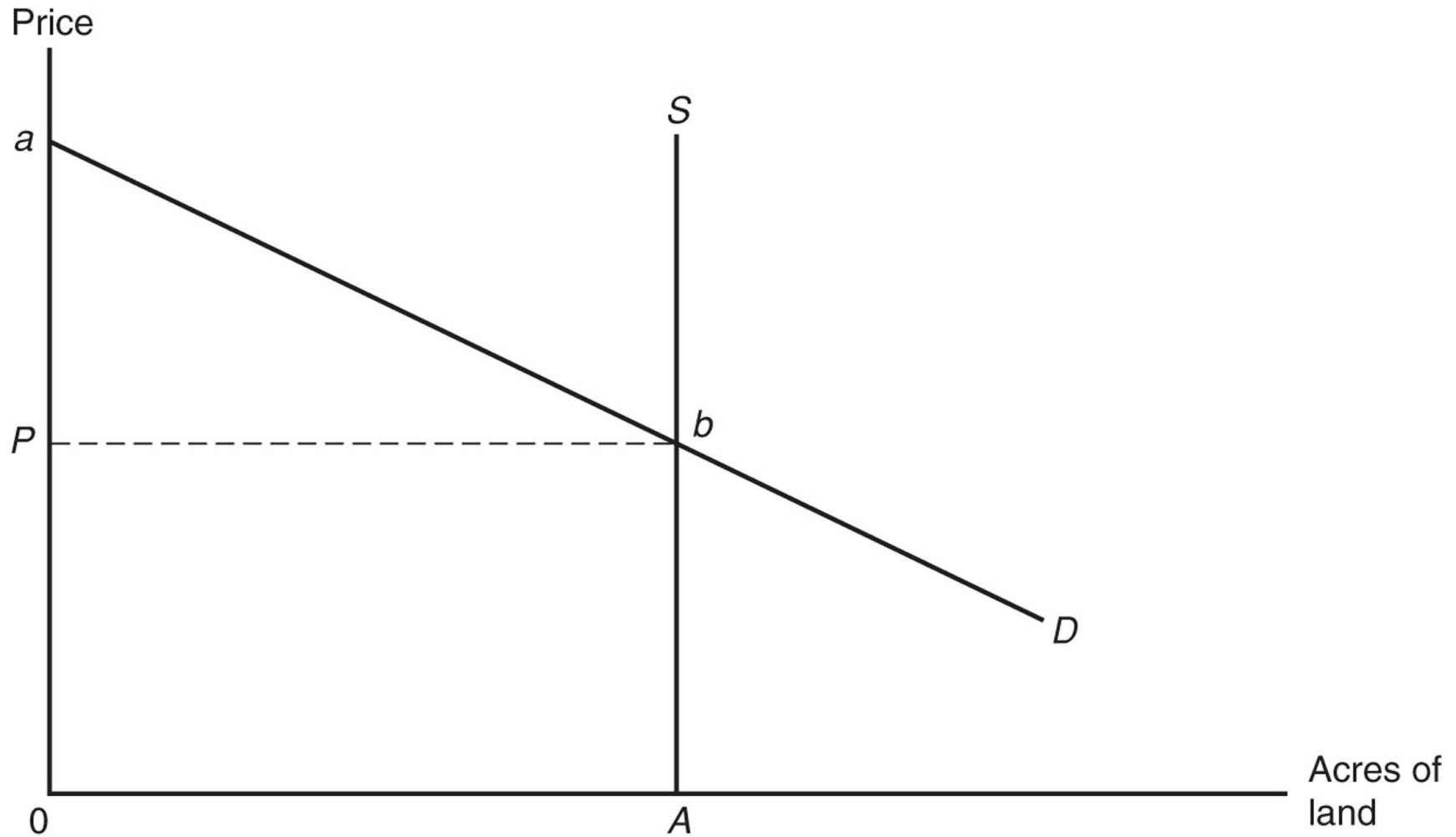
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Figure 4-11 Opportunity Costs with No Price Effects



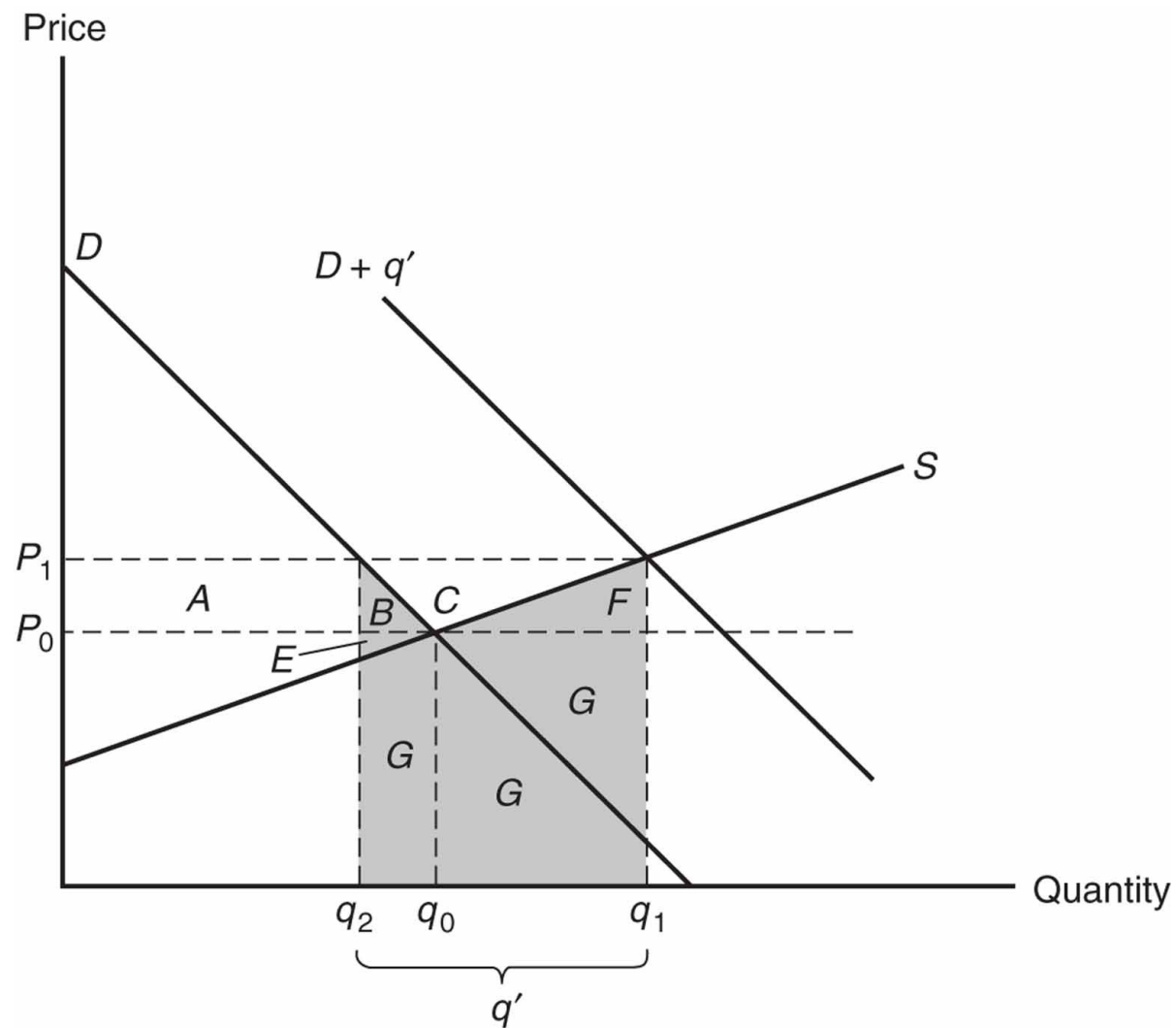
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Figure 4-12 Opportunity Costs with Inelastic Supply Curve



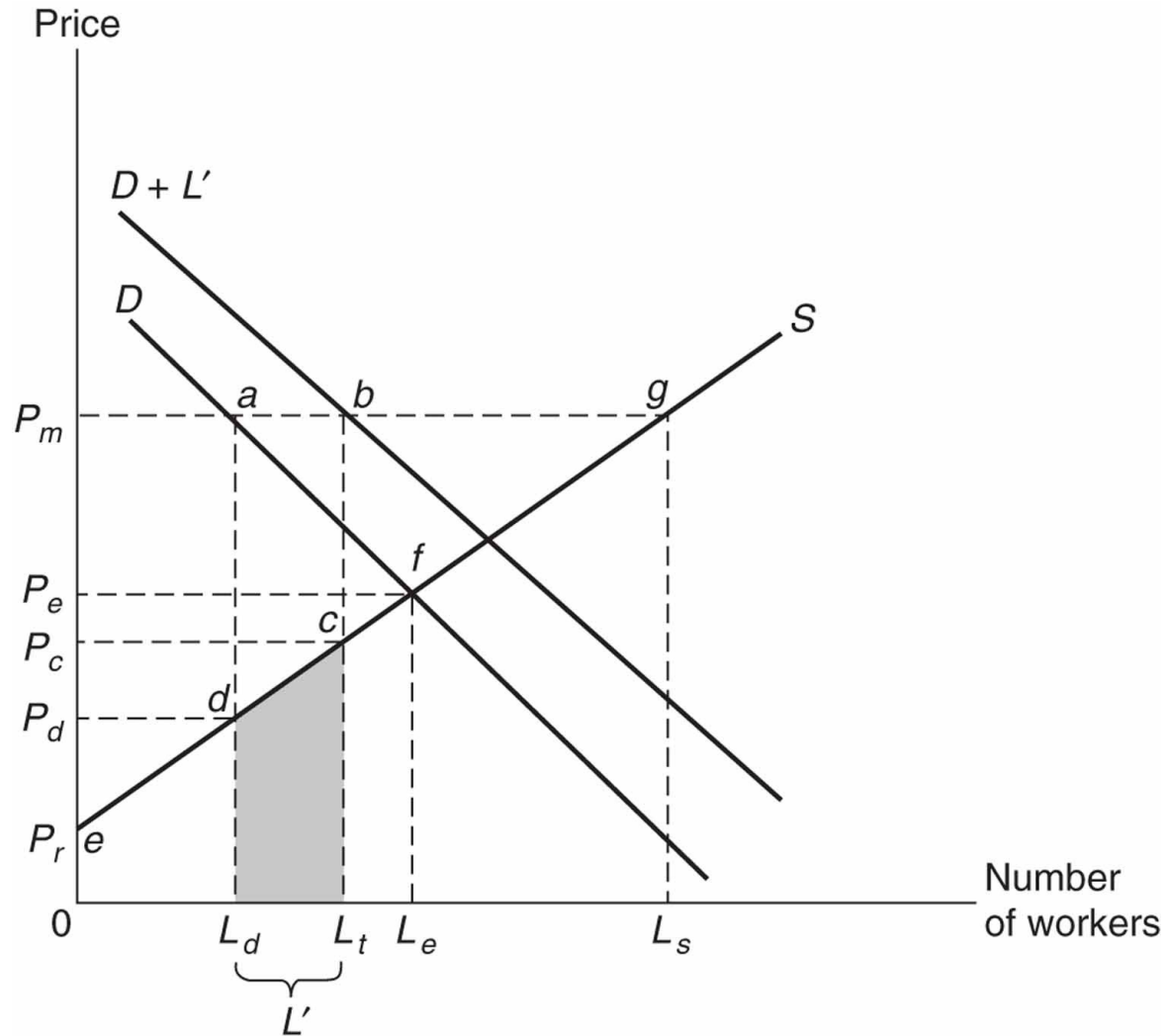
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Figure 4-13 Opportunity Costs with Price Effects



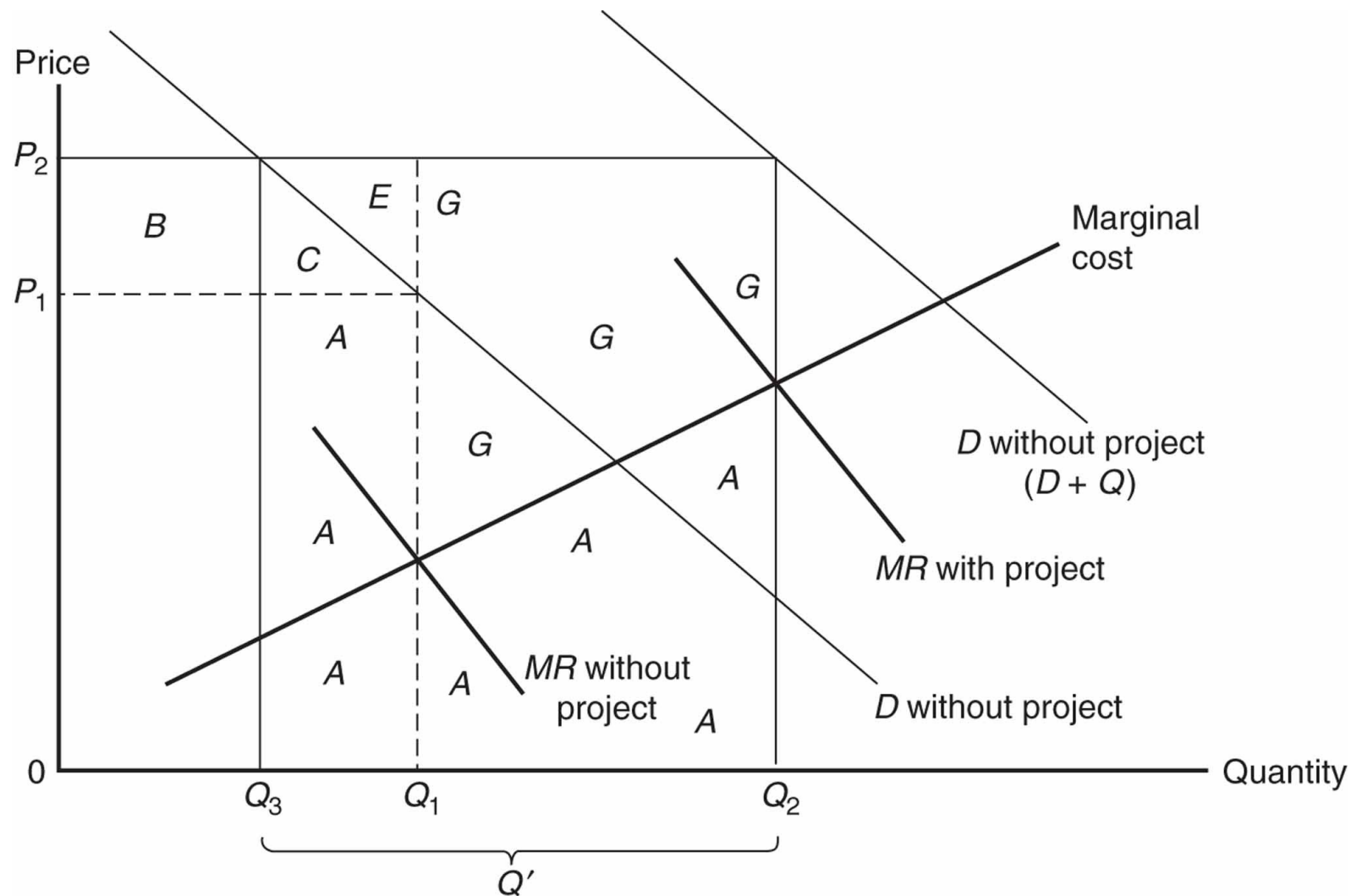
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Figure 4-14 Opportunity Costs with a Price Floor



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Figure 4-15 Opportunity Costs When Buying from a Monopoly



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