Figure 24.1 The Shrinking Corporate Tax Pie

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Figure 24.2 Sources of Corporate Finance

- Firm raises money by
  - Issuing bonds (debt finance)
    - Bondholders receive interest dividends
    - Shareholders receive dividends
  - Issuing shares of stock (equity finance)
    - Shareholders receive capital gains
Figure 24.3 The Corporate Tax Rate Schedule
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Figure 24.4 Investment Decisions with No Corporate Tax
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Cost and return per dollar of investment per period, in dollars

$0.20

Marginal cost, $MC_1 = \delta + \rho$, return required per period

Marginal benefit, $MB_1 = F_K$, actual return per period

Quantity of investment in dollars, $K$
Figure 24.5 Investment Decision with a Tax on Corporate Income

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Figure 24.6 Investment Decisions with Depreciation and the ITC

Cost and return per dollar of investment per period, in dollars

- **Effect of taxes**
- **Effect of depreciation allowance and ITC**

$MC_1 = \delta + \rho$

(required return)

$MC_2 = \delta + \rho 	imes (1 - [\tau \times z] - \alpha)$

$MB_2 = F_k \times (1 - \tau)$

(actual return)

$MB_1 = F_k$

Figure 24.6 Investment Decisions with Depreciation and the ITC
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**Figure 24.7 The Firm’s Financing Decision**

**Taxation As Earnings Pass Through Firm**
- Firm earns $1
- Firm pays income to bondholders: $1
  - Bondholders pay income tax on interest received: $1(1 - τ_{int})
- Firm pays tax on income and distributes after-tax income to stockholders: $1(1 - τ_c)
  - Stockholders pay income tax on dividends: $1(1 - τ_c)(1 - τ_{div})
  - Stockholders pay income tax on capital gains after they sell stock: $1(1 - τ_c)(1 - τ_{cg})
<table>
<thead>
<tr>
<th>Equity holders</th>
<th>Debt holders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Share of financing</td>
<td>$1 million</td>
</tr>
<tr>
<td>Possible gain from investment</td>
<td>$3 million</td>
</tr>
<tr>
<td>Possible loss from investment</td>
<td>$2 million</td>
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<tr>
<td>Expected return from investment</td>
<td>$0.5 million</td>
</tr>
<tr>
<td>Should the firm take the risk?</td>
<td>Yes</td>
</tr>
<tr>
<td>Equity holders</td>
<td>Debt holders</td>
</tr>
<tr>
<td>Share of financing</td>
<td>$5 million</td>
</tr>
<tr>
<td>Possible gain from investment</td>
<td>$3 million</td>
</tr>
<tr>
<td>Possible loss from investment</td>
<td>$10 million</td>
</tr>
<tr>
<td>Expected return from investment</td>
<td>$3.5 million</td>
</tr>
<tr>
<td>Should the firm take the risk?</td>
<td>No</td>
</tr>
</tbody>
</table>