User Rights and Sectoral Impacts

Walter G. Park
American University,
Department of Economics

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MICRO DATA

• Thomson Eikon/Datastream
  • Public & Private Companies
  • Multiple Industries
  • Multiple Countries
  • Time Series

• Sample Results for
  • Select Industries and Countries
  • Market Concentration, Competition, Rates of Return, R&D Intensity
Selected Industries

Copyright/Information Industries

Motion Picture and Video Industries
Newspaper, Periodical, Books, etc.
Radio and Television Broadcasting
Satellite Telecommunications
Software Publishers
Sound Recording Industries
Cable and Other Subscription Programming
Data Processing, Hosting, and Related
Wired Telecommunications Carriers
Wireless Telecommunications Carriers
Other Telecommunications
Other Information Services

Complementary Industries

IT Services & Consulting
Integrated Telecommunications Services
Online Services
Software Services & Consulting
Wireless Telecommunications Services
Selected Countries: 1990 - 2016

<table>
<thead>
<tr>
<th>U.S.A.</th>
<th>Netherlands</th>
<th>France</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.K.</td>
<td>Korea</td>
<td>Japan</td>
</tr>
<tr>
<td>Germany</td>
<td>Spain</td>
<td>Brazil</td>
</tr>
<tr>
<td>Canada</td>
<td>Australia</td>
<td></td>
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</table>

**Issues:**

1) **Nature of Markets**
   - *How concentrated are markets? How competitive?*
   - *What has been the impact of copyright regulations, as well as user rights/openness?*

2) **Firm Performance**
   - *Have changes in copyright regimes and market competition harmed/improved “profitability”?*
   - *What are the impacts on the R&D incentives of complementary industries affected?*
## Market Concentration -- Copyright Sector

\[
\text{HHI} = \sum_{i=1}^{N} s_i^2
\]

<table>
<thead>
<tr>
<th>year</th>
<th>USA</th>
<th>UK</th>
<th>Germany</th>
<th>Canada</th>
<th>Netherlands</th>
<th>Korea</th>
<th>Taiwan</th>
<th>Australia</th>
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<tbody>
<tr>
<td>1990</td>
<td>0.138</td>
<td>0.467</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1995</td>
<td>0.089</td>
<td>0.302</td>
<td>0.453</td>
<td>0.899</td>
<td>0.310</td>
<td>0.476</td>
<td>0.498</td>
<td>0.449</td>
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<tr>
<td>2000</td>
<td>0.056</td>
<td>0.208</td>
<td>0.294</td>
<td>0.229</td>
<td>0.287</td>
<td>0.413</td>
<td>0.434</td>
<td>0.425</td>
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<tr>
<td>2005</td>
<td>0.036</td>
<td>0.180</td>
<td>0.285</td>
<td>0.115</td>
<td>0.276</td>
<td>0.337</td>
<td>0.329</td>
<td>0.414</td>
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<tr>
<td>2010</td>
<td>0.038</td>
<td>0.188</td>
<td>0.265</td>
<td>0.070</td>
<td>0.183</td>
<td>0.247</td>
<td>0.378</td>
<td>0.332</td>
</tr>
<tr>
<td>2016</td>
<td>0.026</td>
<td>0.176</td>
<td>0.234</td>
<td>0.057</td>
<td>0.130</td>
<td>0.247</td>
<td>0.378</td>
<td>0.332</td>
</tr>
</tbody>
</table>

HHI ~ Herfindahl-Hirschman Index
Market Performance – Copyright Sector

Rate of Return = Net Income/Assets

USA
UK

[Graph showing the rate of return for the USA and UK from 1990 to 2016]
Market Performance – Copyright Sector
Market Performance – Copyright Sector

Rate of Return = Net Income/Assets

- Netherlands
- Korea
# R&D Intensity in the Complementary Industries

- **R&D/Sales Ratio**

<table>
<thead>
<tr>
<th>year</th>
<th>US</th>
<th>UK</th>
<th>Germany</th>
<th>Netherlands</th>
<th>Korea</th>
<th>Canada</th>
<th>Japan</th>
<th>Brazil</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990-1995</td>
<td>6.08</td>
<td></td>
<td></td>
<td></td>
<td>0.09</td>
<td></td>
<td></td>
<td>5.49</td>
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<tr>
<td>1996-2000</td>
<td>8.67</td>
<td>10.82</td>
<td>21.03</td>
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<td>1.51</td>
<td>2.99</td>
<td>2.90</td>
<td>4.30</td>
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<tr>
<td>2001-2005</td>
<td>9.28</td>
<td>15.32</td>
<td>19.95</td>
<td>2.95</td>
<td>2.53</td>
<td>8.38</td>
<td>2.47</td>
<td>4.47</td>
</tr>
<tr>
<td>2006-2010</td>
<td>7.44</td>
<td>4.25</td>
<td>14.48</td>
<td>2.13</td>
<td>3.16</td>
<td>7.76</td>
<td>2.28</td>
<td>3.97</td>
</tr>
<tr>
<td>2011-2016</td>
<td>7.73</td>
<td>8.62</td>
<td>14.83</td>
<td>3.27</td>
<td>5.80</td>
<td>12.46</td>
<td>2.59</td>
<td>2.38</td>
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</tbody>
</table>
Hypotheses

• What might we expect?
... Look at the U.S.
... Look at the U.S.
Brazil vs. G-10

Rate of Return in Copyright Industries

Net Income/Assets


Brazil G10 countries
Brazil vs. G-10

Market Concentration in Copyright Industries

HHI


Brazil  G10 countries
Copyright Market Structure, Conduct, and Performance
Copyright Market Structure and R&D Intensity
Cost Factors and R&D Intensity

Cost and R&D: Copyright Industries
G10 plus Brazil

[Graph showing the relationship between Cost/Revenue and R&D/Sales for Copyright Industries, G10 plus Brazil.]
Copyright Burdens?

Cost Factor in Copyright Industries

- Brazil
- G10 countries