The Challenge of Innovation

The New Frontier of Productivity and Prosperity

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Australia’s Terms of Trade and Exchange Rate

Source: ABS; Reserve Bank of Australia; Saul Eslake
Record commodity prices = record new capacity

Global Soybean Production (million metric tons)

- U.S. (52 million metric tons)
- South America (27 million metric tons)
- Rest of World (25 million metric tons)

1990
Record commodity prices = record new capacity

Global Soybean Production
(million metric tons)

- Rest of World: 25 (1990), 34 (2003)
Record commodity prices = record new capacity

Global Soybean Production (million metric tons)

- Rest of World: 25 (1990), 34 (2003)

90 million hectares available
Record commodity prices = record new capacity

Global Soybean Production (million metric tons)


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Global Soybean Production
(million metric tons)

- Rest of World: 25 (1990), 34 (2003)

90 million hectares available
Bio-science investment by Asian governments

- STH KOREA: $0.410bn
- CHINA: $0.45bn
- TAIWAN: $0.88bn
- SINGAPORE: $2.4bn
- JAPAN: $6.3bn

Federal & State: $0.32bn

MALAYSIA: $0.12bn
AUSTRALIA
Proposed Bio-Science government investment

- **JAPAN**: $18bn
- **SINGAPORE**: $7bn
- **STH KOREA**: $5bn
- **CHINA**: $1.9bn
- **TAIWAN**: $1.6bn
- **AUSTRALIA**: $0.65bn
- **MALAYSIA**: $0.15bn

**US $ Billions**

- **Over 5 Years**
- **Over 3 Years**
- **Annual**
## Population required to generate one patent

<table>
<thead>
<tr>
<th>Country</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>2,955</td>
</tr>
<tr>
<td>Japan</td>
<td>3,914</td>
</tr>
<tr>
<td>Switzerland</td>
<td>5,244</td>
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<tr>
<td>Taiwan</td>
<td>5,812</td>
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<tr>
<td>Canada</td>
<td>8,227</td>
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<tr>
<td>Germany</td>
<td>8,778</td>
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<td>South Korea</td>
<td>13,653</td>
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<tr>
<td>France</td>
<td>14,658</td>
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<tr>
<td>United Kingdom</td>
<td>16,568</td>
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<tr>
<td><strong>Australia</strong></td>
<td><strong>22,169</strong></td>
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<tr>
<td>Singapore</td>
<td>25,735</td>
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<td>Spain</td>
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<td>Argentina</td>
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<tr>
<td>Mexico</td>
<td>1,267,532</td>
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<td>India</td>
<td>10,647,319</td>
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<td>Indonesia</td>
<td>21,610,345</td>
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<tr>
<td>Barriers to Innovation in Australia</td>
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<tr>
<td>------------------------------------</td>
<td></td>
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<tr>
<td>% of innovators reporting an obstacle as important</td>
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<tr>
<td>Excessive economic risk perceived by business</td>
<td>24.4</td>
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<tr>
<td>Excessive economic risk perceived by financiers</td>
<td>6.7</td>
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<tr>
<td>Cost or availability of finance</td>
<td>19.2</td>
</tr>
</tbody>
</table>
Risk profile and risk management

The higher the risk, the broader the base over which risk must be diversified.

Low-risk, low-potential businesses funded by family and friends.
Example: Barbershops and building contractors.

Higher risk technology businesses funded by venture capital.
Example: Information technology.

Highest and luspiest risk underwritten by government.
Example: Commercial aircraft.