Driving Korean Innovation for the Next Production Revolution

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About ITIF

- The top ranked science and tech policy think tank in the world
- Formulates and promotes policy solutions that accelerate innovation and boost productivity to spur growth, opportunity, and progress
- Focuses on issues at the intersection of technology innovation and public policy:
  - Innovation processes, policy, and metrics
  - Science policy related to economic growth
  - E-commerce, e-government, e-voting, e-health
  - IT and economic productivity
  - Innovation and trade policy
Today’s Presentation: Korea’s Challenges and Opportunities

1. Slow Productivity Growth
2. Being a Fast Follower
3. Too Many Small Firms
Boosting Productivity Growth Is Still Important

Growth in Korean Labor Productivity
Korean Productivity Gap With U.S. Is Closing More Slowly
Boosting Productivity Requires All Sectors to Improve

- Services productivity levels fell from 76% of manufacturing in 1997 to 60% in 2005.

- Service sector productivity is just 45% of manufacturing levels, compared with an OECD average of 86%.
And All Sectors to Use ICT

- In 2011, ICT investments in Korea were 10% of business investments compared to over 30% in U.S.
- From 2005 to 2010, IT capital contributed to just 8% of Korean growth compared to 30% in U.S.
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Need to Lead Innovation

- Being a fast follower is no longer enough.
- Fast follower status has helped Korea.
- But Korea risks being stuck in the middle between:
  - China and India as the new fast followers
  - The U.S. (and some Northern European nations) as innovation leaders
That Means Building a System for High-Growth Start-ups
## Where is Seoul?

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<th>Ranking</th>
<th>Performance</th>
<th>Funding</th>
<th>Market Reach</th>
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Source: 2015 Global Startup Monitor Ecosystem Ranking

Source: Flash Eurobarometer 283: “Entrepreneurship in the EU and beyond” (2010)
“People Who Have Started Their Own Business and Have Failed Should Be Given a Second Chance.”

Source: Flash Eurobarometer 283: “Entrepreneurship in the EU and beyond” (2010)
“In General, I Am Willing to Take Risks.”

Source: Flash Eurobarometer 283: “Entrepreneurship in the EU and beyond” (2010)
Building a System for High-Growth Start-ups

- Support a culture of risk-taking that celebrates entrepreneurs.
- Teach creativity and entrepreneurship.
- Develop a support system for “gazelle” entrepreneurs. (e.g., UC Connect)
Diversify R&D By Growing Mid-Size R&D Companies

HHI for Business R&D
Reform University-Related Policies to Spur Commercialization

- Allocate R&D funding to universities, in part, based on performance and ability to attract industry investment.
- Increase *permeability*: Take faculty members’ commercial experiences into account in tenure decisions; allow faculty to suspend tenure to pursue commercialization opportunities.
- Give students rights to the intellectual property they invent.
- Support the development of university incubators/accelerators.
- Develop university entrepreneurship rankings.
Spur Collaboration

- Just 6.8% of Korean firms cooperate with government or universities on R&D; compared to 16% in Germany and 24% in UK. (OECD)

- Just 0.5% engage in international R&D collaboration (compared to 26% in Finland and 36% in UK).

- Establish more joint industry-university research centers; establish collaborative R&D tax credit.
Shift Support from SMEs to High-Growth Startups

All Firms in the Economy

Technology-Based Industries

0.3%

Start-Ups

High-Growth Firms
Today’s Presentation: Korea’s Challenges and Opportunities

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Korea Has Too Many Small, Unproductive Firms

- 99.9% of Korean firms are small.
- The share of output from large firms fell from 72% in the early 1970s to 50% in 2006.
- The share of employment in SMEs increased from 80% in 2000 to 87% by 2010 (compared to 44% in the U.S.).
- In services, 91% of jobs in SMEs, compared to 44% in the U.S.
Most Korean Manufacturing Firms Are Very Small
This Slows Growth

- Small Korean firms (5 to 49 workers) are 22% as productive as firms with over 200 workers.

- Workers at small firms make 50% of workers at large firms.
And Limits Innovation

- 49% of Korean SME’s are innovative, compared to 73% of large firms. (OECD Innovation Indicators, 2017)
- Yet over 50% of Korean SMEs receive support for innovation, the highest of any OECD nation.
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- Time for “size neutrality” in all policies.
사합니까

Thank You

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