

Smart diversification and the decarbonization agenda

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Comments on “From Playbook to Implementation”

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Agenda

- Smart specialization vs smart diversification of regions
 - What is the relationship?
- Related diversification
 - Good or bad?
- Diversification and agents of change
- How to think about diversification in a decarbonizing world?
- Two new economic features of a decarbonizing world

Smart specialization vs smart diversification of regions

- There is no such thing as smart specialization of regions
 - There is only smart diversification
- Individuals specialize, firms specialize
- But when this happens, cities and regions diversify
 - Specialization and diversification are the same process seen from two different angles
- Regions must develop new industries and new products in old industries
 - That will cause them to diversify

Related diversification: good or bad?

- Adding new industries faces coordination problem
 - You do not know how to do the things you do not do
 - You cannot do the things you do not know how to do
- This is more easily solved by moving into things that are cognitively related to what you already have
 - Fewer chicken and egg problems to solve
- This lowers the risk of diversification
- ...but it can also lower the benefit of diversification
- Because more distant areas may open up more opportunities
 - The strength of weak ties
- So, you must study the relatedness vs. attractiveness trade-off
 - Risk vs. reward trade-off

Diversification and agents of change

- The key to production is collective or team knowhow
- Team knowhow resides in the brains of people with complementary knowhow
 - Like a symphonic orchestra
- It is hard to put knowhow into brains
 - Malcolm Gladwell says it takes 10,000 hours to become good at something
- It is much easier to move brains
- The people who can diversify a region often come from outside the region
 - Hausmann and Neffke (2016) for the workers of pioneer firms in Germany
 - Neffke et al (2018) for the owners of pioneer firms in Sweden
- So, openness to and attraction of outsiders makes diversification easier

Diversification in a decarbonizing world

- The green agenda has focused on the need to lower emissions
 - Every country, every region must lower its carbon footprint
- But it has focused less on the enablers of lower emissions
 - What the world needs to be able to decarbonize
- So, as you think of your regions, there are two questions you may want to ask
 - What can your region do to decarbonize itself
 - What can your region do to help the world decarbonize
- Decarbonizing just yourself is bound to have some costs and limited global benefits
- Helping the world decarbonize may be very impactful environmentally and may be your region's path to prosperity
 - Provide the things that a decarbonizing world will require
 - They are bound to grow faster than global GDP

Two new features of a decarbonizing world:

(1) The end of the energy flat world

- Oil is exquisitely energy dense
- This makes it cheap to transport
- This caused energy costs to be flat worldwide
- This allowed energy poor countries to be able to be competitive in energy intensive industries
 - Major steel exporters are energy importers
- Renewable energy is much harder to transport
 - Even more difficult than natural gas which is 20 times more expensive in Europe than in the US
- This will mean that energy intensive industries will want to locate near cheap sources of clean energy
- This would be good for the world
 - It will need fewer solar panels and wind turbines
- But it will be good for some regions, bad for others
 - Europe, in general, is an energy poor region

Two new features of a decarbonizing world:

(2) The rising importance of the cost of capital

- The sun shines, the wind blow, the rain falls for free
- Two costs dominate the cost of renewable energy
 - The investment cost and the cost of capital
- Competitiveness will be influenced by two factors
 - The efficiency with which you can install new capacity
 - Regulation, engineering, construction
 - The cost of capital
 - Country risk, industry risk
- Macro risks can undo natural advantages
 - A higher interest rate can destroy the advantage of a stronger wind and sun

Thank you!